AN ANALYSIS OF THE MUNICIPALITIES' REVENUE DISTRIBUTION IN THE STATE OF SÃO PAULO

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Abstract

The financing of Brazilian municipalities is heavily dependent on an inter-governmental transfer system. This article will analyze if the constitutional transfers' distribution criteria have attained their distributive objectives, reducing horizontal disparities in the state of São Paulo. The results tend to indicate that despite the diminishing of disparities, the revenue differential is still very high. This makes us to wonder about the necessity of reformulation of the distribution criteria. From the point of view of the space analysis, the "regions of government" classification was used, which seems to be closer to economic regions than any other types of classification.

Resumo

As finanças locais dos Municípios brasileiros são altamente dependentes de transferências inter-governamentais. O objetivo deste artigo é analisar se os critérios de distribuição dos recursos constitucionais tem atingido seu objetivo de redução das disparidade de receita entre os municípios no Estado de São Paulo. Os resultados indicam que apesar da redução da disparidade, esta é ainda muito elevada, o que pode nos levar a pensar na reformulação dos critérios. Na análise, foram utilisadas as regiões de governo, por serem as mais próximas de regiões econômicas relativamente homogêneas.

Introduction

Brazilian municipalities include the urban and the rural areas and they are the

"locus" of action of public and private sectors. The public action at the local level is derived from the federal, state and local governments. The division of tasks and sources of revenue for each of them may be analyzed from the federalism framework point of view. The Brazilian federalist system is formed of 27 states, a Federal District and municipalities, which have a large political and financial autonomy and are responsible for a great deal of the allocative function.

The aim of this paper is to analyze the efficiency of the constitutional transfer system to municipalities, especially the Fundo de Participação dos Municípios - FPM and the Quota-parte do ICMS – QPM-ICMS. We will concentrate the analysis in the State of São Paulo that represents 20% of the total population of Brazil, 36% of GNP and 35% of exports. There are 645 municipalities in São Paulo State as of 1998, which are grouped in 43 regions of public planning, the so-called "Regions of Government". The capital of São Paulo State is the municipality of São Paulo, where there are around 9.600.000 inhabitants, approximately 30% of the total population of the State and 30% of the state production. The region nearby São Paulo municipality, including four others municipalities (Santo André, São Bernardo do Campo, São Caetano and Diadema), called "Greater São Paulo", represents 36% of the state population and 37% of the state production, indicating the huge concentration of people and production in this group of municipalities.

The question of the efficacy of these transfers is highly important as we have pointed out that the allocative tasks of the Brazilian government are greatly decentralized and there is no sign that the tax reform presently discussed at the Congress will touch such a theme.

The article is organized as follow: Part 1 treats the role of Brazilian municipalities in a decentralized federalist system, including some theoretical, historical and institutional aspects of the question. The fiscal structure that emerged from the 1988 Constitution is emphasized.

Part 2 presents the most important fiscal transfers to municipalities – FPM and QPM-ICMS, showing theirs rules of distribution.

Part 3 shows an analysis of the dispersion of the local public revenue among municipalities in "regions of government" and in population groups, the distribution criteria of FPM and QPM-ICMS to municipalities. Here we analyze if the transfers do reduce the dispersion of local public revenue.

1. The role of Brazilian municipalities in a decentralized federalist system

The role of Brazilian municipality in the federalist system has changed during the last decades, according to the pendular movement of centralization and decentralization observed in the recent economic and political history of Brazil. To define precisely the desired role and degree of political-economic autonomy of sub-national levels of government is a hard task, and it depends on the criteria used in the analysis. Despite this, there are some models and concepts that describe the nature of the decentralization in a federative system.

A first reason for decentralization is the question of proximity between the suppliers and demanders of public services, that must make increase considerably the control upon the quality and the quantity of them. A second reason for decentralization is that a low level of government treats the social, economic and environmental disparities better than a central agency as usually local authorities know better local characteristics. Finally, a third reason that must be remembered is the existence of an adequate size in the supply of public services, for example, a school that may offer a good service to a specific local population.

We must remember that there are some public services whose benefits overflow the municipalities' space limits, such as environmental controls and public safety. In this case, the regional supply aspect is determinant of public action. If economics of scale are present, there is a strong incentive for a regional or state supply of the service.

However, there are some services that are relatively heterogeneous and may be offered either by the local, the state, the regional or the central government, depending on its complexity and scope. This is the case of health service, which may vary from a simple home care system to health centers or even a highly complex hospital system. In the same way, basic education could be held by the local level, the intermediate or high school by the state level and graduation by federal government, even though other structures of public education are possible.

The movement of centralization and decentralization of fiscal federalism may be analyzed, also, by the liberal ideal of reduction of the state size, as usually the lower levels of government tend to be less politically and financially powerful than a highly centralized state. The dispersion of political and financial power would be desirable for the creation and increase of some degree of competition among the

various local governments in the sense that better services and efficient tax collection would attract new inhabitants from other neighborhoods.

Although this approach has a good appeal as it looks for a reproduction inside of the public sector of what is the most relevant feature in the market – the competition ideal, we may criticize it because the pulverization of resources, including political power, may lead to an increase of the local governments' activities, in terms of quantity and variety of public services, as the population pressure is more present.

From the recent historical point of view, Brazilian municipalism was a tendency against the power of the states in the Old Republic (1889-1930). The 30's are the moment of increase in local power, a process aided by the central government. The recognition of the political and administrative role of municipalities, as well as its difficulties, already appeared in the 1946 Constitution that created a system of regular inter-governmental financial transfers from the federal income tax to the local governments. Brazil was, at that time, a rural country and therefore, in the case of the financial transfers to municipalities, those amounts should be used in rural areas. The fast growth of industrialization and urbanization in the 50's led to increasing demands on local governments. Even in the dictatorial period starting in 1964 and ending in 1984, Brazilian municipalities had to deal with increasing demand and supply of public services, especially in social areas. The decentralization was intensified during the 70's and 80's due to definitive change of the country from a rural to an urban one.

The Constitution of 1988 just consolidated this tendency, increasing the percentages of federal funds destined to the constitutional share funds. The Fundo de Participação dos Municípios - FPM increased from 17% to 22,5% as a percentage of the federal Income Tax (IR) and the Tax on Industrialized Products (IPI). Moreover, the participation of municipalities in the state tax - Imposto sobre Circulação de Mercadorias e Serviços - ICMS, increased from 20% to 25%. Table 1 represents the fiscal structure of Brazilian federalist system and table 2 shows the evolution of the percentage of Income Tax and IPI destined to FPM.

According to table 1, the Taxes on Foreign Trade (II and IE), Income (IR), Industrialized Products (IPI), Financial Operations (IOF) and Land Property (ITR) belong to the federal government, whereas states have an Value Added Tax on the Circulation of Goods and some Services (ICMS), Motorized Vehicles (IPVA) and on

Property Inheritance (ITBI "causa-mortis"). Municipalities have a Tax on Donations or Sale and Purchase of Property (ITBI "inter-vivos"), on Urban Property (IPTU) and on Services (ISS).

The principal federal financial transfer to municipalities are the FPM – Fundo de Participação dos Municípios (Fund of Participation of Municipalities) and 50% of the Imposto Territorial Rural - ITR. Municipalities receive from states 25% of the ICMS, which is called Quota-Part of ICMS (QPM-ICMS), 50% of the IPVA and 25% of the IPI-Exportation received by the states from the Union. The most relevant financial transfers to municipalities are the FPM and QPM-ICMS.

In spite of the decentralization process towards the increase of the role of Brazilian municipalities, states and the central government are still the great agents of political and financial power. It must be remembered that the internal division in sub-national governments and the vertical and horizontal interaction are a product of the utilization of some principles of fiscal federalism as well as, and especially, the historical evolution of this society.

If, during the 80's there was a decentralization of political and financial power, there existed simultaneously a superinflation process. One of the causes of inflation has been attributed to the imbalance between increasing constitutional transfers to states and municipalities and the transfers of supply of services from the central to the sub-national governments. It's certain that the redefinition of the fiscal revenue implies an imbalance, as the adjustment on the expenditure side does not occur at the same speed as the transfers of revenue from central to local levels of government.

Table 1
Brazilian Fiscal Structure – 1998

Taxes		
Union	**States**	**Municipalities**
-Importation (II)	-Circulation of Products and Services (ICMS)	-Urban Property (IPTU)
-Exportation (IE)	-Property of Motorized Vehicles (IPVA)	-Services (ISS)

-Income (IR)	-Inheritance of Property (ITBI-causa mortis)	- Donation, Purchase and Sale of Property (ITBI-inter-vivos)
-Industrialized Products (IPI) -Rural Land Property (ITR) -Financial Operations (IOF) -Extraordinary Taxes (1) -On Large Assets (1)	-Income Tax on Capital Gains (1)	

Constitutional Transfers

From Union to States

- Fundo de Participação dos Estados –FPE

$\quad$ = 21,5% of (IR+IPI)

-IPI-Exportation = 10% of Tax on
$\qquad$ Industrialized Products (IPI)

From Union to Municipalities

-Fundo de Participação dos Municípios (FPM)
$\quad$ = 22,5% of (IR+IPI)

-50% of Tax on Rural Land Property (ITR)

From States to Municipalities

-25% of Tax on Circulation of Products and
 Services (QPM-ICMS)

-50% of Tax on Motorized Vehicles (IPVA)

-25% of IPI-Exportation Received by
  states

Notes: (1) not in use.

The fight for fiscal spaces within the Brazilian federalist system was renewed in the 90's with the Fundo Social de Emergência - FSE (Social Emergency Fund), created in 1994 and renamed to Fundo de Estabilização Fiscal - FEF (Fiscal Stabilization Fund), to which were destined 20% of the revenue collected by central government, before transferring resources. FEF has been a way of the central government to compensate its losses with the 1988 Tax Reform as well as the increase in the so-called social contributions, which are not shared with states and municipalities.

Table 2
Evolution of the Percentage
of Income Tax and IPI destined
to FPM – 1968/1998

Year	%	
1968		10
1969		5
1980		9
1985		16
Sep 1988	17	
Oct 1988	20	
1990		21
from 1993 on	22,5	

2. Distribution criteria of FPM and ICMS to municipalities

FPM is transferred from the Union to the municipalities and, as a consequence of being federal, its distribution rule applies equally to the whole country. The principle of FPM distribution is said to be distributive, that is, the revenue is transferred according to the size of population. Municipalities are grouped in three categories for this distribution: municipalities of the Capital, all municipalities of the interior and municipalities of the interior with a population of above 156.216 inhabitants. The municipalities of the Capital receive, jointly, 10% of the FPM. Each Capital receives the FPM according to a composition of two indexes - the first one is proportional to population and the second one is proportional to the inverse of the "per capita" income.

In the second category, municipalities receive 86,4% of the FPM and, in this case, each municipality is classified in a table according to population size and receives a coefficient. Table 3 shows these classes of population and their corresponding coefficients. Notice that the coefficients increase progressively up to a population size of 156.216 inhabitants, corresponding to coefficient 4,0. The municipalities whose population exceeds 156.216 inhabitants belong to the third category, which receives not only the financial transfers normally distributed to the municipalities of the interior, but also an additional of 3,6% of the FPM that is called the "Reserva of FPM". The distribution is made to this group in the same way as to the Capitals – in proportion to the population size and to the inverse of "per capita" income (see table 4, which gives a better idea as to FPM distribution).

The distribution of FPM has been criticized because it is not directly

proportional to population, but depends on the classification table that greatly benefits small municipalities - up to 10.188 inhabitants, that receive the same amount, regardless of having 1.000, 5.000 or 10.000 inhabitants. On the other hand, larger municipalities do not receive as much transferred revenue as their necessities increase. Even the amount of the "Reserva" (3,6% of the FPM) is relatively small if compared to the financial necessities of bigger cities. It is worth noting that the number of small municipalities of coefficient 0,6 represents around 43% of the total municipalities in the state of São Paulo, as we can see in table 5.

In contrast with the FPM, the QPM-ICMS is distributed from states to municipalities according to the state rules as the ICMS is a state tax. In fact, there is a federal constitutional rule that defines that the QPM-ICMS must be distributed to each municipality according to at least 75% of the value added created locally. The other 25% must be defined at the State level. Therefore, the distribution of QPM-ICMS for municipalities follows a compensating principle: it is made to return the fiscal revenue of ICMS collected by the State in each municipality and the variable used for the compensation is the value added created locally.

In the State of São Paulo, this variable is the most important one, with a weight of 76% of the total index of distribution. The other variables can be seen in table 6. The structure of distribution which follows is valid only for São Paulo State municipalities.

Table 3
Municipalities of Interior
Coefficients of FPM According to Population

INHABITANTS	COEFFICIENT
Up to 10.188	0,6
10.189 to 13.584	0,8
13.585 to 16.980	1,0
16.981 to 23.772	1,2
23.773 to 30.564	1,4
30.565 to 37.356	1,6
37.357 to 44.148	1,8
44.149 to 50.940	2,0
50.941 to 61.128	2,2
61.129 to 71.316	2,4
71.317 to 81.504	2,6
81.505 to 91.692	2,8
91.693 to 101.880	3,0
101.881 to 115.464	3,2

Source: Decreto- Lei nº 1.881/81, art.º1.

While the FPM is transferred from the Union to municipalities every ten days, the State transfers the QPM-ICMS to municipalities every Tuesday.

Another financial transfer that must be pointed out is the IPI-Exportation which was created by the 1988 Tax Reform to compensate states and municipalities for the exemptions in the ICMS field, determined by the federal government to improve foreign trade. It is formed by 10% of the Federal IPI collection and is transferred proportionally to each state's exportations, with a limit of 20%. São Paulo State receives 20% of this transfer, 25% of which is shared with its municipalities, using the same participation indexes and transfer system as the QPM-ICMS.

Table 4
Criteria of Distribution of FPM

MUNICÍPALITIES	PARTICIPATION ON THE TOTAL AMOUNTS OF FPM (%)	CRITÉRIA OF DISTRIBUTION
1- Capitals	10% of FPM	Proportional to population and inversely proportional to *per capita* income
2- Municipalities of the Interior	86,4% of FPM	Proportional to population
3- Municipalities of the Interior with population above 156.216 inhabitants	3,6% of FPM	Proportional to population and inversely proportional to *per capita* income

Note: the municipalities of type 3 receive their normal quota, i.e., quota related to municipalities type 2, plus that referred to the "Reserva" (3,6% of FPM).

Table 5 - São Paulo Municipalities
of Interior Classified by FPM range

Coefficients	Municipalities	%
0,6	279	43,3
0,8	53	8,2
1,0	47	7,3

1,2	55	8,5
1,4	40	6,2
1,6	21	3,3
1,8	22	3,4
2,0	15	2,3
2,2	16	2,5
2,4	10	1,6
2,6	16	2,5
2,8	7	1,1
3,0	5	0,8
3,2	7	1,1
3,4	9	1,4
3,6	3	0,5
3,8	-	-
4,0	39	6,1
Total	644	100,0

Source: Decisão Normativa 18 – TCU, 23/12/97.

Table 6 - Variables and Weights for the QPM-ICMS distribution in São Paulo State

Variable	Weight %
- Value added [1]	76
- Population [1]	13
- Own Fiscal Revenue[1]	5
- Fixed Part [2]	2
- Cultivated Area[1]	3
- Area used for Creation of Electric Energy [1]	0,5
- Area Destined to Environmental Protection [1]	0,5

Source: Law 8.510, Dec.29 1993.
1 – Participation of each municipality in the total of the State.
2 – Equally distributed to all municipalities.

3. Inequality in local tax revenue and intergovernmental transfers

Not only the capacity of financing of municipalities is very different according to the population size, but also the "per capita" revenue is very disparate, both in

intra-regional terms as inter-regional.

Table A.1 show us some information on population and local revenue in the 43 "Regions of Government", a São Paulo State legal division created in 1984, in order to develop a decentralized pattern of political-administrative action.

Table A.1 represents, for each region, the data on population according to the 1991 Census (Col.1), the index of participation on the QPM-ICMS part of municipalities for the year of 1997 (Col.2), the local tax revenue (monthly average for 1995 - Col.3), the "per capita" local tax revenue for the same period (Col.4), transferred revenue received from ICMS+IPI-Exportation in the month of July 1997 (Col.5), these transfers in "per capita" terms (Col.6), the average regional coefficient of FPM (Col.7), the amount of FPM received from Union in July 1997 (Col.8), the "per capita" FPM (Col.9), the total local revenue, here defined as the sum of Col.3 plus Col.5 plus Col.8 (Col.10) and the total revenue "per capita" (Col.11), which was obtained by dividing Col.10 (total revenue) by Col.1 (population). For the 43 "Regions of Government" is shown the average of those variables, the standard deviation and the coefficient of variation, that is the standard deviation divided by the average and indicates the dispersion around the average.

The coefficient of variation is a simple way of analyzing dispersion. We can consider that the data is relatively concentrated if the coefficient of variation is smaller than 0,10 or 10%. Above that figure, we can say that there is a high level of dispersion around the average. In table A.1, we can see the dispersion of the several variables in the third line of each Region of Government. For example, in the Region of Government of Adamantina, the coefficient of variation of the local tax revenue is 1,28 (in Col.3) and the coefficient of variation of the "per capita" local tax revenue is 0,65 (in Col.4), much smaller than in the first case but considerably high. Looking at the coefficient of variation of the total revenue of Adamantina (Col.10), we notice that the dispersion is reduced to 0,49 and in "per capita" terms is reduced to 0,46 (Col.11).

The dispersion observed through the various regions in column 3 (local tax revenue) is quite reasonable as each region includes a number of different "sizes" of municipalities and, in general, there is a remarkable "size effect", or, in other words, we can expect that larger municipalities have higher local tax revenue and other relevant variables, as production and circulation of goods and services. Looking at Column 4, however, we realize the high level of dispersion of local tax revenue in

"per capita" terms, intra or inter-regionally, which is a result of the different economic characteristics of local economies as well as the local tax autonomy.

However, this variability must be minimized by transfers of the federal and the state governments, as this is one of the reasons for their existence. We must now see the transfer system to municipalities as an instrument of reducing inequalities.

3.1. Local revenue after transfers

In table A.1, we can see the high dispersion of the amounts from the coefficient of variation of Columns 3 (local tax revenue), 5 (ICMS+IPI-Exportation Transfer), 8 (FPM Transfer) and 10 (Total Revenue) of the different types of municipal revenue. It is observed that the dispersion of the total revenue (Col.10) is smaller than that of the local tax revenue, or, in other words, the transfer system does minimize the high dispersion of local tax collection.

On the other hand, when we look at the dispersion in "per capita" terms throughout the regions, we observe that 25 out of 43 had a decrease of the dispersion of the total revenue if compared to local tax revenue, and in 18 out of 43 there was an increase in the dispersion. This may suggest that in "per capita" terms the distribution criteria hardly minimize the disparities among people within regions, even though in inter-regional terms there is quite a good result.

It's suggesting that the dispersion of the "per capita" FPM is generally higher than the dispersion of the ICMS+IPI-Exportation, both in inter as well as intra-regional terms. The fact is that the supposed criteria of distribution of FPM is distributive, and the principal variable of repartition is population, whereas in the case of ICMS, the principle of distribution is to compensate local authorities for the tax collected by other level of government and the principal variable used is production. We may conclude that the compensating principle of ICMS is, perhaps, more distributive than the distributive practice of FPM as there is a high correlation between production and size of population of municipalities. On the other hand, the FPM classification is not fair, especially for large municipalities, because the classification table has a limit, i.e. the coefficient 4,0 for municipalities above 156.216 inhabitants.

Conclusion

The participation of financial transfers has become increasingly important for Brazilian municipalities since the 80's. In spite of the existence of rules, i.e., financial transfers defined by constitutional regulations, which is a guarantee of relative stability and independence of the municipalities in face of the central and state government, there is also a problem of heterogeneity and disparity in the São Paulo municipalities' financing. That is the reason why it is possible to find a very wealthy local government existing side by side with a very poor one. Usually, there are some services that are offered on a powerful local level and that are utilized by others communities.

According to the analysis here presented, the established rules for distributing public revenue from the Union and States to municipalities help to reduce inequality but the situation of fiscal inequality is still very high, so to reform these rules is urgent if we would like to improve the quality of public management. Unhappily, this problem is not focused in the present tax reform debate.

As far as public revenue is concerned, in order to improve the financial situation of municipalities in such a way that will enable them to provide better services, and, at the same time, reduce the inequality among them, it is important to reduce the dispersion of the total "per capita" revenue. This could be achieved by a change in the transfer's distribution criteria, with higher emphasis in population and with the adoption of a criterion on poverty.

In this sense, we can think of eliminating the table of FPM distribution and creating a rule of distribution according to population and inversely related to income for all municipalities. Therefore, we could eliminate the three categories of municipalities for the FPM transfers - municipalities of capitals, interior and the Reserva. We must note that the municipality of São Paulo, the Capital of the State, plus the municipalities of the Reserva represent about 65% of this State's population and receive only 13% of the FPM received by the State. On the other hand, the small municipalities of coefficient 0,6 represent only 4% of the State's population and receive, together, approximately 42% of the FPM received by the State. This signifies that the FPM is distributive in terms of number of localities and not number of people.

In the case of the QPM-ICMS, we should modify the constitutional rule by

reducing the 75% of value added, at minimum, to a smaller percentage and increasing the weight of population as a parameter of distribution. However, all these suggestions should be discussed within a political framework, where the concept of municipality should be reviewed including specific rules as to the minimum conditions which constitute a municipality, such as minimum population and capacity to achieve its own revenue. It would be very important to adapt our fiscal transfers system, but as it has been already said, there seems to be very little concern to this question in the present political debate.

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APPENDIX **(Excel File)**