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Local Governments' Tax Burden in Brazil: Evolution and Characteristics

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Abstract

Since the establishment of the 1988 Constitution, there has been a movement of fiscal (and in terms of responsibilities) decentralisation towards local governments in Brazil. Nowadays, since the municipalities have nearly a relevant role in the federation as the states have, it has become more important to carry out a detailed study of their tax burden. From the last year before the Constitution until 2016, the municipalities' tax burden nearly doubled in terms of local taxes collected, and more than doubled in terms of available revenue. The growth even remained after 2011, when the national tax burden took a downwards turn. An assessment using the tax base reveals a regressive municipal taxation, similar to the pattern of the Brazilian tax system as a whole. An analysis by population and by region shows that the direct municipal taxation is more intense in the richer and more populous regions, while available revenue is shown to be more relevant in poorer and less populous regions. Despite the municipalities' remarkable evolution in the Federation, a comparison with other countries shows that there is still room for local governments to expand fiscally.

Keywords: tax burden, local governments, fiscal decentralisation, federalism, Brazil

1. Introduction

Throughout the 1980s and 1990s, many countries experienced state reforms based on the privatisation of the state productive sector and decentralisation of social policies. The decentralisation was established by the World Bank as a strategy that would provide more efficiency in the provision of public services, besides subjecting them to greater social control of the population [1]. Thus, a description of these policies was adopted in countries of unitary and

federalist political organisation, but only in the Brazilian federation, the local government was elevated to the condition of federative entity.

The institution of federalism in three spheres of government (Union, 26 states and the federal district and 5570 municipalities) gives everyone a broad political, administrative, legislative and financial autonomy. It is a symmetrical federalism that does not recognise its economic disparities or an unequal distribution of the population in the national territory: 70% of the municipalities aggregate only 17.1% of the Brazilian population, which is very concentrated in large cities (29.3% of the population lives in 38 municipalities with more than 500,000 inhabitants). But, almost half of the municipal tax collection is also concentrated in these municipalities [2].

Such inequality would translate into different financial autonomies between municipalities: the larger ones have more capacity to raise own revenue, but a large majority of small municipalities depend on revenues from intergovernmental transfers. Recognising territorial disparities in such a context raises major challenges for the federative cooperation in Brazil. It is about going far beyond what this chapter proposes.

Usually, in most federalist countries, the local governments have the smallest budget among the different levels of government. As this level of government is more fragmented and meets the needs of targeted segments of the population through less complex public policies, there is a natural tendency for the resources available in local governments to be lower than those of state/regional governments and the central government.

In Brazil, this scenario is no different, but there is an important aspect to be highlighted: the regular and increasing participation of the municipalities in the consolidated public sector's available income. In 2014, the municipalities directly collected about 7% of the country's tax burden and ended up with just under 20% of this amount after intergovernmental transfers [3]. In 1987, a year before the enactment of the Federal Constitution, these shares were 2.5 and 12.6%, respectively [4]. The growth trend is so consistent that nowadays the municipalities have a budget almost as important as that of the state governments, a fact that has led some authors, for example, Afonso and Araujo [5], Castro and Afonso [6] and Fernandes and Wilson [7], to classify the fiscal federalism in Brazil as a "fiscal municipalism" or "municipal federalism."

If much of this growth was due to the increase in intergovernmental transfers, the local governments' greater capacity to levy taxes was no less important. According to Serra and Afonso [8], the subnational governments' ability to levy their own taxes strengthened and consolidated from the establishment of the Constitution of 1988 and did so concomitant with the expansion of the country's total tax burden [9]. That is, the municipal participation in this burden expanded precisely at a time in which the Brazilian welfare state grew after the current constitution advanced social rights.

If the flow of resources has increased, the allocation of public policies has also been growing at an accelerated pace. During the 1990s, when faced with the new reality of reduced participation in available revenue resulting from decentralisation, coupled with the need for fiscal adjustment and macroeconomic stabilisation [10], the Union began to follow unorthodox

procedures with regard to intergovernmental relations. It became the norm for tax-collecting efforts to be concentrated in unshared revenue, such as social contributions [11] and the transfer of responsibilities to other spheres of Government [12], which was backed by the Constitution of 1988 to establish obligations common to more than one level of Government.

Despite the municipalities gaining space in the Brazilian federation, several problems relating to the implementation of public policy and tax collection and administration at local level can still be observed. Regarding expenditure, one can highlight the institutional difficulties of inter-municipal cooperation (in the case of consortia) in the provision of public services [13], which is also hindered by the federation's horizontal inequalities [14], thereby generating inefficiency in public spending. Regarding revenue, tax management is still plagued by inefficiency, and municipal tax authorities have high administrative costs, especially in places with smaller populations and less economic weight which still rely heavily on federal and state transfers [5].

This study addresses this last question. Since the public sector's fiscal space is mostly determined by its tax revenue, it is necessary to analyse municipal taxation. As Ingram and Hong [15] categorically affirmed, the importance of studying municipal finances comes from the idea of cities and their surroundings as agents of economic growth, in which the efficient provision of public services can create the correct incentives for firms and households. The inadequate supply of infrastructure and urban services (such as public transportation) by local governments tends to lead to a loss in productivity, thereby weakening the local economy [16].

The importance of this analysis goes further: few studies have chosen to do an evaluation focused on this theme in Brazil. Broadly speaking, the vast majority of the work produced in Brazil on taxation is aimed at the federal level or the consolidated public sector. At the municipal level, it is common to read articles about taxation with more specific content based exclusively on one tax or even in the form of case studies.

Therefore, the aim of this study is to analyse the tax burden of local governments in Brazil, focusing on its historical evolution, participation in the federation, size, tax base and distribution of revenue between localities according to their size and region. It is important to note, however, that the tax burden here will be assessed in a broader sense, not just restricted to direct income (direct taxation), but also to tax revenue resulting from other spheres of government destined for municipalities—that is, the available revenue. To achieve this objective, a descriptive analysis of data—always obtained from official sources—will be carried out, supported by bibliographic references related to the topic.

In addition to this introduction, five more sections are presented: Section 2 presents the evolution of municipal taxes, relating it to the trajectory of the total tax burden; Section 3 examines how municipal taxation impacts on the economy, once more, in contrast to the consolidated public sector's tax base; Section 4 presents data broken down by population and region; therefore, attempting to understand how taxation behaves according to the size and location of municipalities; Section 5 presents a brief international comparison of the size of local governments in fiscal federalism and finally, Section 6 presents final considerations on the topic.

2. Historical evolution of municipal taxation

The tax burden, in its strictest sense, is nothing more than the simple relationship between the volume of resources collected via taxes and the gross domestic product (GDP) of a given location over a given period of time. Usually, the tax burden is calculated at a national level, considering the total fiscal collection that occurred in the country in a given year. This common and broad approach to the tax burden will not be used in this study; instead, it will restrict itself only to taxes levied by local governments. In other words, the analysis will focus only on taxes that fall within the scope of municipalities and on the intergovernmental transfers they receive—not withstanding eventual comparisons of this type in other levels of government.

The basic source for consultation on municipal revenue is the publication Brazil's Finance (Finbra) from the Brazilian National Treasury (STN). The GDP is obtained by the System of National Accounts (SCN) with the Brazilian Institute of Geography and Statistics (IBGE). For the other areas of government, some other official sources were consulted: Union Balance Sheet (BGU) and Budget Execution of the States (EOE), STN; System S Transfer Report, from the Brazilian Internal Revenue Service (RFB), and the Workers' Severance Guarantee Fund (FGTS) Report, a service of the Federal Social Bank (CEF). Furthermore, information was also obtained from the STN, National Petroleum Regulatory Agency (ANP) and National Electrical Energy Regulatory Agency (Aneel) to compose the database regarding transfers between governments.¹

The tax burden of municipalities—from the standpoint of direct collection—is estimated at 2.37% of Brazil's GDP in 2016, which represents approximately 7.2% of the same year's total tax burden. With a clear upward trajectory since the Constitution of 1988, the municipal tax burden of 2016 was the largest ever achieved in the history of the country, surpassing by 1.77 pp., the GDP of 1987, the first year of the National Constitutional Assembly that gave rise to Brazil's current "magna carta." **Table 1** presents the evolution of each sphere of Brazilian Government's tax burden, from the viewpoint of direct collection and available revenue, since 1960.

At the same time as their own collected revenue increased, the municipalities experienced a substantial rise in intergovernmental transfers: an increase in transfers from the Municipal Participation Fund (FPM), the creation of the Fund for Maintenance and Development of Basic Education and Valorisation of Education Professionals (Fundeb), as well as the expansion of municipal participation from 20 to 25% of the state Tax on the Circulation of Goods and Services (ICMS) collected, were the main events to have contributed to such scenario.

The increase in transfers from the Union and the states made the municipalities' available revenue (direct collection plus transfers) increase from 2.98% of GDP in 1987 to 6.67% of GDP in 2016—a growth not as intense (in relative terms) as in the case of direct collection, but still very expressive and unparalleled in the Brazilian federation. To have a basis for comparison, in the same period, state governments increased their available revenue by 2.86 pp. of GDP, below the 3.68 pp. of local governments. Municipal participation in federal and state revenue

¹The entire procedure of calculating the tax burden adopted in this chapter follows the "broad" methodology of calculation, which considers all public revenue extracted compulsorily from society by part of the government (federal, state and municipal). In this way, the method used here differs from most of the tax burden estimates by including items such as royalties, economic contributions, tax fines, revenue from active tax debt and others. For more details, see [1].

Year	Tax Burden (% of GDP)				Composition (% of Total)			
	Union	States	Municipalities	Total	Union	States	Municipalities	Total
DIRECT COLLECTION								
1960	11,14	5,45	0,82	17,41	64,0	31,3	4,7	100,0
1970	17,33	7,95	0,70	25,98	66,7	30,6	2,7	100,0
1980	18,31	5,31	0,90	24,52	74,7	21,6	3,7	100,0
1990	19,29	8,52	0,97	28,78	67,0	29,6	3,4	100,0
2000	20,38	8,45	1,73	30,56	66,7	27,6	5,7	100,0
2010	22,36	8,81	2,07	33,23	67,3	26,5	6,2	100,0
2015	21,65	8,80	2,36	32,80	66,0	26,8	7,2	100,0
2016	21,37	8,95	2,37	32,69	65,4	27,4	7,2	100,0
AVAILABLE REVENUE								
1960	10,37	5,94	1,11	17,41	59,5	34,1	6,4	100,0
1970	15,79	7,59	2,60	25,98	60,8	29,2	10,0	100,0
1980	16,71	5,70	2,10	24,52	68,2	23,3	8,6	100,0
1990	16,95	7,94	3,89	28,78	58,9	27,6	13,5	100,0
2000	17,07	8,16	5,33	30,56	55,9	26,7	17,5	100,0
2010	18,76	8,34	6,13	33,23	56,5	25,1	18,4	100,0
2015	18,10	8,22	6,48	32,80	55,2	25,1	19,8	100,0
2016	17,61	8,41	6,67	32,69	53,9	25,7	20,4	100,0

Elaborated by the authors. Primary sources: Varsano et al (1998), Afonso and Castro (2016), STN, RFB, CEF, ANP, Aneel and IBGE.
Broad methodology: includes taxes, fees and contributions, including FGTS, royalties, revenue from fines and active debt.
Available revenue = tax collection plus/minus constitutional sharing of tax revenue and other compulsory transfers.

Table 1. Evolution of the Tax Burden's Federal Share by level of government, 1960/2016.

is fundamental for understanding the strong growth of local governments' role in the Brazilian federation—not only through increased revenue, but also due to the fact that local governments have become responsible for implementing much of the country's social policies.

The significant participation of the municipalities in the public sector's available revenue (around 20%) was achieved due to two decentralising movements provided by the Constitution of 1988: granting tax autonomy (their own revenue) and intensification of intergovernmental transfers. This aspect is important in the Brazilian Federal debate because, as indicated by Afonso and Araujo [5], the idea that the municipalities' revenue has grown since the 1980s exclusively due to federal and state transfers is not unusual.

The municipalities' own resources were and have been such important factors to the “fiscal municipalism” in Brazil that in recent years, it is possible to identify an interesting aspect about the direct collection of local governments: the continuing tendency of an expanding tax burden even with the economic crisis that took hold of the country from 2014 [17]. The country's total tax burden has been showing a pattern of contraction since 2011, leading Ribeiro [18] to point out the existence of a structural break in Brazilian tax elasticity with respect to economic performance from the subprime crisis of 2008. Apparently, this break applies to the public sector as a whole, but not specifically for local governments.

Elaborated by the authors. Primary sources: Varsano et al (1998), Afonso and Castro (2016), STN, RFB, CEF and IBGE.

Figure 1. Evolution of the municipal tax burden and its main components, 1980/2016.

Breaking down the municipal tax burden, one can see that it is determined primarily by two taxes: the Tax on Services of any Nature (ISS) and the Property Tax (IPTU). While the first is an indirect tax, levied on the service sector's production, the second is a direct tax on urban real estate. Between 1980 and 2016, these two taxes accounted for, on average, more than 60% of the municipal tax burden. In 2016, this participation was 57.7%. **Figure 1** shows the trajectory of the municipal tax burden and its main components since 1980.

Although both taxes present an expansionary trend from a historical perspective, this is most evident in the case of the ISS, especially from 2003 onwards. Some explanations may be suggested in this case: First, the modern economy is leaning increasingly towards the service sector, especially those services of higher added value, related to innovation and technology [19], and, in Brazil's case, especially in metropolitan areas [20]; second, the enactment of Amendment No. 116 in 2003, which increased the activities subject to the ISS; third, the advent of the electronic invoice in local governments, which modernised tax management and supervision [21] and consequently, the revenue collected [22, 23] and fourth, the relatively low IPTU collection in light of its potential [24–27].

3. Tax burden by tax base

Assessing the tax burden by tax base intends to identify which economic categories underpin the tax wedge, thus being able to make some inferences about the characteristics of the tax system studied such as fairness and distributive efficiency.

Figure 2. Composition of the tax burden by tax base, 2016.

According to Afonso and Castro [3], the Brazilian tax burden (total) is markedly characterised by a high incidence of taxes on the sale of goods and services. In fact, the data from the 2016 tax burden point in this direction, as evidenced in **Figure 2**. However, the picture is significantly different when the municipal taxation is examined separately.

Despite the taxation on goods and services being pretty close in both cases, the way in which the taxes are levied (direct and indirect) acts slightly differently in the two cases. Adding the base of goods and services to taxation on foreign trade, financial fees and transactions (plus “others”), makes up the framework of indirect taxation in the country—which is usually regressive [28, 29], helping to accentuate social inequalities.

The burden of indirect taxation [...] is high in Brazil. The so-called indirect taxes, included in the prices of goods and services are collected by third parties, responsible for charging, but effectively borne by final consumers. Such taxes, by their nature, affect consumers indiscriminately, regardless of their level of income. Therefore, mainly the poorest, who spend their entire income on consumption, are encumbered. The ultimate effect of this taxation is highly regressive and concentrating [30], p. 85.²

As **Figure 3** shows, this indirect base has greater importance in the municipal taxation (50.6%) than in the consolidated public sector taxation (45.7%), which could indicate a worse tax structure in the municipal scope.

²Translation made by the authors.

Figure 3. Tax burden of the consolidated public sector and local governments by type of taxation, 2016.

However, classifying taxes by how they are levied is not enough to make such an assertion. This is because, even among direct taxes, there is evidence of low levels of progressiveness or even regressiveness. For example, Carvalho Jr. [31] is categorical in stating that IPTU—despite being a direct asset tax—is regressive, within the realm of real contributors (taxpayers). Another case is that of the social security contribution (tax base “salary and labour”) which, “[...] by virtue of the upper limit of contribution, acts regressively” [32], p. 13.³ In the same sense, Mélo and Campos [33] point to a historical process of deterioration in progressiveness of taxation on income and patrimony.

In this way, considering indirect taxation’s greater weight in the tax authorities of local governments, along with the fact that IPTU (the second largest municipal tax) also presents regressive characteristics, it is reasonable to assume that the municipal taxation contributes to accentuating social inequality in Brazil, following a characteristic which is inherent in the Brazilian tax system as a whole [9].

4. Taxation by size of municipality and region

Following the evaluation of the municipal tax burden, this section aims to breakdown municipalities into groups by population and region of the country. An analysis focused on this is important to see how the tax burden of local governments behaves as the socioeconomic

³Translation made by the authors.

profile of the localities is changed, allowing questions such as: “do bigger cities have a higher tax burden?” or “what is the profile of a municipality that receives relatively more transfers?” to be asked.

Due to the information that is presented in this section being in greater detail, it has not been possible to present data as recent (2016) as that of the two previous sections. Since the last GDP for municipalities released by the IBGE refers to 2014, this section is related to 2014. Therefore, the main base of information (Finbra) was also from that year. This on the other hand was reedited to remove major errors such as zero or negative values, but providing a final sample of 4866 municipalities—87.4% of the total number of municipalities in Brazil (5570) in 2014. To calculate the burden, the municipalities were divided into six bands of populations⁴ and five regions.⁵

Given these brief methodological considerations, **Figure 4** presents the municipal tax burden (% of GDP) in terms of direct taxation and available revenue in each of the six population bands and the general average.

Figure 4 presents two clear movements when the data are observed from the smaller to the higher population range: first, the local governments' own direct collection grows in relation to the size of the municipality in terms of population and second, the available

Elaborated by the authors. Primary Sources: Finbra/STN and GDP of Local Governments/IBGE.

Figure 4. Direct collection and available municipal revenue by band of population, 2014.

⁴The population bands are as follows: up to 10,000 inhabitants; from 10,000 to 20,000 inhabitants; from 20,000 to 50,000 inhabitants; from 50,000 to 100,000 inhabitants; from 100,000 to 500,000 inhabitants and 500,000 inhabitants and above.

⁵The regions are according to the national geographic division: North, Northeast, Southeast, South and Central West.

revenue (including transfers) presents an opposite trend, having an inverse relationship with the size of the municipality in terms of population.

A few observations can be made from these results. Firstly, regarding the relatively higher tax burden in the larger cities, the evidence is consistent with the literature that points to a tendency of service agglomeration in major urban centres [34, 35], especially the more sophisticated services which are connected to industrial activity [36]. Therefore, considering it is the municipality's responsibility to levy tax on the services sector, it is expected that the municipal tax burden would tend to be larger in larger cities. Furthermore, the concentration of these services and population in a limited area of the region raises the value of the urban properties, providing greater potential for revenue gained from tax levied on real estate assets [37] such as IPTU.

Secondly, a big distortion can be seen when analysing the resources actually available to local governments after transfers from other spheres of government. As there is a clear difference in cities' abilities to levy taxes, intergovernmental transfers—notably those with unconditional redistributive characteristics such as the FPM—come into play to reduce horizontal inequalities between localities. However, as shown by the data, in fact, this does not happen. This had already been demonstrated by other authors such as Prado [38] in stating “[...] the Brazilian federation has a tax system which lacks an efficient and dynamic method for reducing disparities” [38], p. 41.⁶

In fact, intergovernmental transfers—especially the FPM and the State Participation Fund (FPE)—tend to accentuate the horizontal inequalities by prioritising the allocation of resources to locations with less population. **Figure 5** shows the relationship between transfers distributed to municipalities per capita and the size of the municipalities' population, in which a negative relationship between the volume of resources received and the size of the population can be seen.

Once the Union and state transfers represent a relatively larger portion of the municipalities' disposable income than the local taxes levied, it is established that an unbalanced distribution of resources via intergovernmental transfers distributed horizontally (between municipalities), as shown in **Figure 5**, goes hand in hand with a lack of equality in available revenue. **Figure 6** shows that even adding their own revenue to transfers, available revenue per capita tends to be higher in the municipalities with smaller populations.

In an ideal scenario, the trend line in **Figure 6** should be completely horizontal: that is, the available revenue per capita should be exactly the same for all municipalities. This ideal scenario would use as a criteria only the population (number of residents) as a proxy for the level of demand for public goods in municipalities.

However, the scenario is a little more complex: the most populated cities require a greater volume of resources to meet the population's needs, due to the population density, the higher rates of urban problems (violence, traffic, etc.) and the greater complexity of services demanded (better informed voters with higher levels of education). At the same time, the less

⁶Translation made by the authors.

Figure 5. Intergovernmental transfers per capita $\times$ population, 2014.

populated locations have fewer resources to co-finance a growing number of policies formulated by the federal government and assigned to local governments. A significant part of municipal spending on social policies is protected by the Constitution, which makes the allocation of fixed percentages in state and municipal budgets for the health and education sectors mandatory [39]. In 2016, the governmental level which showed the bulk of spending on health and education, approximately 50% of the spending that year, was the municipal governments, according to STN [40].

Another way to observe the inequality between the different locations, from both of the aforementioned points of view of the municipal tax burden, is separating by region, as shown in **Figure 7**.

Here, there is a pattern quite similar to that obtained in **Figure 4**, in which regions with lower socioeconomic development (with less populous cities) collect less tax themselves (direct collection) and have more available revenue. This is exactly the case of the North and Northeast.

Elaborated by the authors. Primary Sources: Finbra/STN.

Figure 6. Available revenue per capita $\times$ population, 2014.

On the other hand, the Southeastern, which is known to be more advanced economically and in terms of population, has a higher municipal tax burden from the perspective of direct collection and a lower available revenue from the standpoint of local governments.

This pattern of a smaller tax burden in poorer and less populated regions is directly related to a more restricted taxable base, in addition to the costs and administrative difficulties of the collection procedure in small municipalities [5]. Nevertheless, it is possible to affirm that with the arrival of the Public Digital Bookkeeping System (SPED)⁷ and dissemination of the use of Electronic Invoices, these barriers should be reduced.

Besides the economic and administrative aspects, it is possible to point out yet another contributing factor to the lower municipal tax burden in less affluent locations: the incentive

⁷Established by Decree No. 6022, of 22 January 2007, the SPED is to modernise the current performance of ancillary obligations, provided by taxpayers to the tax administrations and oversight agencies, using the digital certificate for signing electronic documents, ensuring the legal validity of those only in digital form.

Elaborated by the authors. Primary sources: Finbra/STN and GDP of Local Governments/IBGE.

Figure 7. Direct collection and available municipal revenue by region, 2014.

(reverse) given by intergovernmental transfers. Empirical evidence shows that, if a city receives resources from a third-party above what is required and without having to incur the administrative and political cost itself, there is a tendency for the beneficiary government to decrease in fiscal responsibility in the following ways: over-proportionately increased spending by the local government, which is known as the flypaper effect [41]; a drop in the quality of local public spending, such as a decrease in investments and an increase in running expenditure [42] and, finally, the disincentive to raise their own revenue [43].

5. International comparison

Section 2 of this chapter shows, through official statistics and other authors, that municipalities have had an expressively increased participation in the fiscal federalism in Brazil, especially after the 1988 Constitution, which raised local governments to the level of a federated entity and made them responsible for implementing much of the social policies.

Despite the intense development of municipalities with regard to the decentralisation of resources, the current position of local governments in the national tax burden can expand even more. At least, this is the evidence that emerges from a quick comparison of Brazilian data with the position of countries in the Organisation for Economic Cooperation and Development (OECD), as can be seen in Figure 8.

It can be noted that Brazil's position in the ranking of local governments' participation in the national tax burden is intermediate. With a participation of approximately 6.9% in 2014, the

Elaborated by the authors. Primary Sources: Afonso and Castro (2016) and OECD Statistics.

Figure 8. Local governments' participation in the National Tax Burden (% of the total), 2014.

country was considerably lower than the OECD average and behind countries that adopt a federal system such as Germany, Canada, USA and Switzerland. The comparison with OECD countries is justified for two reasons: first, the total tax burden of Brazil is compatible with the average of this group [3] and second, the Brazilian government has recently applied to the OECD for membership.

6. Final considerations

This study sought to introduce, concisely and with different approaches, local governments' tax burden in Brazil. Based on the analysis of official statistics, backed up by the previous

literature, it was possible to identify that the fiscal decentralisation that has occurred since the Constitution of 1988 has been very favourable to the municipalities, which experienced an increase in direct taxation simultaneously with increased transfers from other levels of government, providing a fiscal autonomy and a role in the federation never seen before in the history of the country.

Despite gaining ground, there is a debate which highlights that such reallocation of resources in favour of municipalities is not necessarily in line with the elevation of their responsibilities of implementing the growing social policies defined by the federal government.

Currently, the municipalities' available revenue is roughly one-fifth of all taxes collected in the country and is a direct consequence of taxes that have great potential for expansion—as they are founded on the intensification of urban features, more and better services (ISS) and increased value of land (IPTU)—as well as increasing transfers.

The broken down data on the municipal tax burden show some of its undesirable characteristics. First, the analysis of the tax base showed that the municipal taxes follow a pattern similar to the Brazilian tax system as a whole, leaning towards highly regressive taxation, which accentuates social inequalities in the country. Second, the analysis of the burden by population shows unbalanced available revenue in favour of the less populous locations, constraining the budget of major centres, which deal with a high demand for public goods and services. A similar feature is noted when the burden is studied by dividing the country into regions. At the same time, the smaller and poorer municipalities have more difficulties to comply with the growing responsibilities of social policies determined vertically.

When dealing with municipalities as federal entities without acknowledging the strong heterogeneity among them (70% of the 5570 municipalities have a population of less than 20,000 inhabitants), the Brazilian fiscal federalism is crying out for adjustments so that there is a suitable balance between the sources of funding and the responsibilities that the local governments have been taking on.

Finally, it has been shown, based on an international comparison using OECD data, that despite local governments in Brazil having gained plenty of ground in the last 30 years, it is still possible to improve the participation of municipalities in the total tax burden, given their intermediate position in this index's ranking.

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