

Fiscal Decentralization, Federal Resources and Municipal Public Revenues in Mexico

José Antonio Villalobos López

Instituto Politécnico Nacional. Escuela Superior de Economía, Mexico

E-mail: jvillalobosl7500l@egresado.ipn.mx

http://dx.doi.org/10.47814/ijssrr.v5i8.416

Abstract

In 1983 all municipalities in Mexico absorbed 2.6% of national public revenues, being that by 2019 it reached 6.6%, thus showing a substantial growth in 36 years. Of the total municipal public revenues, federal participations represented 37.1% in 2018 and 37.1% in 2019, while federal aport-ments represented 35.9% in 2018 and 35.3% in 2019; both federal resources meant 73% in 2018 and 73.8% in 2019, that is, out of every 4 pesos of revenues 3 come from the federation. In 2019, the main revenues of the municipalities that come from federal funds are: General Participation Fund (23.1%); FORTAMUN (15.2%); Social Infrastructure Aportments Fund (12.79%). The tax effort or municipal own revenues accounted for 22.6% of total municipal public revenues in 2018 and 23.1% in 2019. Property tax is the main figure of municipal own revenues, representing 47.1% and 45% respectively in 2018 and 2019.As an international comparison point property tax related to GDP yielded these figures: France 4.03%, Great Britain 4.08%, Canada 3.87%, United States 2.96%, Spain 2.43%, Colombia 1.79%, Chile 1.12% and Mexico only 0.33% of GDP; appreciating a very low percentage in relation to the two Latin American nations and much lower compared to developed countries.

Keywords: Decentralization; Federalism; Municipal Government; Local Finance; Local Administration

Introduction

The last section of Article 25 of the Political Constitution of the United Mexican States empowers the three levels of government to implement public policies, in which the State becomes the rector of national economic and social development, which must become integral and sustainable. It is very complex for the federal or state government to be able to know and regulate the actions and situations of the political, social and economic life of the local communities, which is why the municipalities have more proximity and direct contact with the population and can contribute so that their localities are incorporated into the processes of economic development of local expression.



In the first part, reference is made to concepts, characteristics and elements of decentralization, especially in the economic area, which leads to fiscal decentralization and fiscal federalism, followed by the concept of fiscal laziness, which occurs when local governments are discouraged from collecting their own revenues, since federal resources (participations and aportments) are assigned to them.

In the second part, we will study federal participations and federal aportments or subsidies granted to municipalities, where the former can be used by municipalities to cover their needs with full autonomy and without any conditions, while federal aportments are conditioned to specific branches and specific works. Here we will also analyze the provisions of the Fiscal Coordination Law regarding federal participations and aportments.

In the third part, the topic of municipal public revenues is presented, highlighting the case of municipal revenues, where the concepts and elements that comprise them will be discussed. A separation is made between contributions (taxes, duties), products and take advantage. Highlighting the importance of the real estate property tax in local public finances. In the fourth part of the paper we will provide and analyze recent quantitative information related to municipal public finances in our country.

1. Decentralization and Fiscal Federalism

It is considered that at present 19 nations in the world are governed under the federal system, among which are the United States of America, Austria, Germany, Argentina, Brazil, India, Iraq, Nigeria, Russia, Switzerland, Venezuela and, of course, Mexico. In federal countries it is normal for conflicts of interest to arise over political and administrative issues, but especially controversies arise over economic issues.

Federalism and decentralization are two interrelated concepts and processes, since federalism is considered the basis of decentralization, where decentralization is effected and concretized with the conclusion of a pact between the federal (central) government and the local (subnational) governments, to harmonize and coordinate the revenues they are to receive and the public services they are to provide, each within the competence of its sphere.

Decentralization implies the transfer of decision-making, allocation and provision of resources to local governments, in order to bring public services closer to the citizenry. The objective of decentralization is to reduce territorial disparities by improving the quality of public services provided by local governments. I take up two quotations from different sources, which deal with the concept of decentralization:

- ...can be defined as a process of granting or devolving different economic, political and administrative powers to the various levels of the National Government [Yepes & Ríos, 2017: 3).
- Decentralization is a comprehensive process that involves the transfer of competencies and resources from the national government to subnational governments [Quispe, 2021: 11].

Among the various classifications of decentralization, we can locate two main types: political and economic, where the former aims to foster the citizen-State relationship and the latter seeks the reallocation and distribution of wealth or national income.

A. Shah (1999; cited by Mendoza, 2019: 309) points out that decentralization of political control delinks fiscal and spending responsibilities from local governments and also generates accountability problems, especially in emerging countries: "local governments spend more without improving tax



revenue collection". Within economic decentralization, I include fiscal decentralization, which focuses on tax collection and the distribution of transfers from other government agencies.

We must differentiate between two terms that are often used interchangeably or synonymously by some authors: fiscal federalism and fiscal decentralization. Authors such as Pranab Bardhan and Egon Montecinos (2002; 2005; cited by Franco & Cristancho, 2012: 237) point out that the foundations of fiscal decentralization in Latin America were based on the economic theory of fiscal federalism.

The rise of fiscal federalism began after the end of World War II; before that time, there had not been so much work on issues involving the different spheres or levels of government in public finances. Fiscal federalism emerged from the economic literature, with authors such as Charles Tiebout, James Buchanan, Richard Musgrave, Wallace Oates and Joseph Stiglitz standing out. On the subject W. Oates (1999, cited by Franco & Cristancho, 2012: 238) notes:

...the theory of Fiscal Federalism aims at studying the economic functions that should be developed by the different levels of government and the appropriate fiscal instruments to develop such tasks, with the objective of achieving an efficient provision and financing of public goods.

In the same sense, Biel Gutiérrez (2019: 5) defines it: "Fiscal Federalism is the part of Public Economics, which studies the financial problems that arise because of the decentralization of power at various levels of government".

Fiscal federalism is the concept that serves to explain intergovernmental relations, which is a discipline that seeks to detail the tax powers (power to collect certain contributions) and the distribution of public spending between the federation, states and municipalities. For Quevedo (2013; cited by Cuevas, 2020: 25) fiscal federalism deals with the distribution of tax powers and efficiency in the exercise of spending between national and local governments.

Following one of the classic authors of public economics and public finance in the country, such as Benjamin Retchkiman (1975:35), I can affirm that fiscal federalism has these characteristics:

- The basis of modern tax systems should be built around federal income taxes (income) of individuals and corporations, and a consumption or sales tax (valued added tax). For Gómez & Moran (2016: Synthesis):
 - ...it is clearly observed that the two great pillars on which the taxation of all countries, developed or developing, is based are income taxation and consumption taxes. During the last three decades, reform measures have been focused on the expansion and strengthening of valued added tax.
- ★ At the local level, two main types of taxes should be used: at the state level, the payroll tax; at the municipal level, the real estate tax (property tax and transfer of ownership), which should be administratively reinforced by the state government in technical matters and the updating of the cadastral registry.
- The federal government will administer and collect the national taxes and will distribute to the local governments (states and municipalities) what corresponds to what is established by the legal ordinances approved by the national legislatures.



Franco Vargas & Cristancho Escobar (2012: 256) in their conclusions make us see that there is an influence of the economic theory of fiscal federalism in the rules and decisions taken in the environment of fiscal decentralization, stating:

In other words, the minimum assumptions of the economic theory of fiscal federalism are confirmed, since the central level is in charge of the provision of pure public goods -such as national security and defense- and of the policies of stabilization of the economy and redistribution of income and wealth, while the decentralized levels are in charge of financing, with their own resources, the provision of local public goods.

Fiscal federalism is specifically part of the theory of public economics, while fiscal decentralization implies talking about political, administrative, sociological and legal issues. This is the difference between the two concepts, although common themes can be found in both areas.

Thus, in order to be successful, fiscal decentralization processes must be accompanied by improving the tax capacity of local governments, since in scenarios of low revenue collection it is impossible to achieve administrative and economic autonomy. Ángeles Castro et al (2019: 114) expresses:

Fiscal decentralization can be understood as the process by which a central or federal government transfers economic resources, political power and decision-making capacities to subnational governments. The main objective of this process should be to boost economic growth and reduce economic disparities between regions.

Tulia Falleti (2005: 328; cited by Unda, 2019: 3) points out that decentralization is a state reform project, which accompanies public policies that seek to transfer responsibilities and resources to subnational governments, a process that occurred in Latin America since the 1970s. Economic thinking suggests that fiscal decentralization is associated with the allocation of resources and public allocations, since the local government has a better knowledge of the needs of its inhabitants.

Experience has shown that when decentralization of public spending is carried out without considering the contributive capacity of the municipal entities, it is impossible to strengthen local public finances. Undoubtedly, local governments should take greater responsibility for generating their own revenues, but by increasing their revenues, municipal entities would have the obligation to be transparent in the area of public spending, understanding that if citizens contribute more resources, they would also demand clarity and transparency in the management of these public funds.

Horacio Sobarzo (2008; cited by Unda, 2019: 8) mentions that the decentralization of spending to subnational governments (entities and municipalities) has had greater progress than the decentralization of income, a process that has not been free of obstacles. Until before 1999, several governors refused to hand over the public services that corresponded to the municipalities of our country, because they did not want to lose political power and, above all, the income that these local public services provided them.

Mora Sifuentes (2019: 139) in his conclusions on federalism mentions that there is great concern about rehabilitating the importance of local municipal governments within the theory and practice of federalism, in the case of mature political systems if this is not done, it could undermine "the effectiveness and legitimacy of federal institutions in the 21st century", while in newly formed systems, not considering the local level "may cause an institutional weakness that will be perpetuated generation after generation".



Both in Latin America and around the world, a boom in federalism and decentralization was observed at the beginning of the new century; in fact, the World Bank in its 2000 Development Report 'Entering the 21st Century' (Velázquez, 2021: 112) defined decentralization together with globalization as the two forces under which most policies to achieve development would be implemented.

Experts in tax systems have proposed the separation of revenue sources, where each level of government would control and administer a specific tax: generally, the federal government would be granted income tax for individuals and companies, the states or provinces would be supported by the consumption or sales tax and local governments would base their revenues on the real estate tax.

Classic authors such as Cabezas Masses (1968:4), state that it is more important to structure a comprehensive national tax system than to seek a specific tax for each sphere of government with its respective administration in isolation. In a federal tax system, it is necessary to have a defined coordination of the actions to be taken by each sphere of government, in order to avoid situations of double taxation or an excessive burden on the taxpayer. For this reason, the legal norms of a country must contemplate limits on the actions of all the tax authorities that converge in the federal system, recognizing that this task is sometimes difficult when trying to achieve the desired tax coordination. In this regard Mora Sifuentes (2019: 125) expresses:

It is important to point out that a perfect division of powers and functions between both spheres is extremely difficult to achieve in practice...one speaks of "cooperative federalism" as a design that promotes the concurrence of competences, as well as the integration of their activities.

The issue of financing is the most sensitive aspect of the federal system, for George Anderson (Mora, 2019: 126) the question of who determines taxes, who collects them and how the resources are spent is of fundamental importance for its functioning, where central governments often use their great fiscal power to control and influence local governments.

It has been observed that the real estate tax does not vary with the phases of the economic cycle, as is recognized to be the case with the income tax, so that the property tax can generate stable revenues in periods of economic stabilization, but in inflationary periods it would become a disadvantage if the cadastral values of real estate are not permanently and constantly updated.

The so-called shared tax is considered the most appropriate for financing the different spheres of government in a federal regime, where the collection of the main taxes at the national level, such as income tax, value added tax, tax on special products, foreign trade tax and tax on hydrocarbons, would correspond to it. The collection of these concepts should be distributed to state and municipal governments in accordance with the legal norms.

Di John (2006; cited by Unda & Moreno, 2015: 50) points out that questions about the level of tax collection and tax composition have been addressed by the economic literature from different approaches: 1) The administrative approach; 2) The economic approach; and 3) The political economy approach. According to the administrative approach, low tax collection is influenced by the authorities' lack of administrative capacity, which combines a weak administration with little experience in these matters and inadequate accounting and control systems.

The economic approach has two visions for dealing with the issue: a) The optimal theory of taxation; and b) The set of ideas on the determinants of revenue collection. The political economy approach is useful when the economic part alone cannot explain the problem of tax collection levels, where it is aided by other fields of knowledge. In updating his work, Unda Gutiérrez (2021: 52-53) points



out that outstanding authors of the administrative approach are Bird and Casanegra, Tanzi, Burgess and Stern; while for the economic approach they are Hinrichs, Musgrave, Lotz and Morss; and for the political economy approach Levi and Tilly stand out.

2. Federal Participations and Aportments

What in Mexico is known as participations, in other countries they are called shared taxes, unconditional transfers or financial decentralization revenues, see the case of some authors such as Wallace Oates, Ramiro Cabezas, Benjamín Retchkiman, Miguel Muñiz and Alberto Roviro in this regard. Although more than half a century old, the commentary of one of the most prestigious authors of Latin American local finance, Cabezas Masses (1968:54), tells us on the subject:

The fact that the central government is the most apt to collect taxes does not mean that this level should have the responsibility to spend all that it collects...Both levels of government - federal and state - should recognize that these transfers are not a denigrating subsidy nor a gracious or voluntary concession; they are an integral part of the nation's financial system.

Regarding federal participations, the Fiscal Audit of the Federation (2018: 5) notes: "Federal participations are resources that are transferred by the Federation to federal entities and through them also to the municipalities and territorial districts of Mexico City, due to their adherence to the National System of Fiscal Coordination".

Federal participations are granted as compensation for the fact that state and municipal governments cease to collect contributions reserved for the federal level, whereby a legislative norm establishes the mechanisms for the distribution of these resources. An essential characteristic of the participations or shared revenues is that there must not be any indication that dictates the destination or the way in which these resources are to be spent; likewise, no authority may condition the delivery of the participations to political or partisan situations.

In shared taxes or participations, we must not forget the negative aspect, consisting of local governments ceasing to make efforts to improve their own contributions (Unda & Moreno, 2015: 46). This phenomenon is often called 'fiscal laziness' of subnational governments (Yepes & Ríos, 2017: 1).

Regarding the issue of fiscal laziness, W. Oates (2005; cited by González & Gómez, 2020: 396) considers it as an issue addressed by the second generation of the theory of fiscal federalism, where he determines that the existence of fiscal dependence is attributed to the fact that with the arrival of national resources, there is an incentive to reduce the fiscal effort to collect their own revenues. On this issue Gómez & Moran (2016) comment:

As Gómez Sabaíni and Jiménez (2011a) demonstrate, this behavior is indeed observed in most countries in the region, where the financing of lower levels of government depends crucially on intergovernmental transfers provided by the central government, which generally act as a disincentive to achieve the strengthening of own resource sources and subnational tax administration.

In this sense, two of the most common problems caused by the high revenues received by local governments from federal participations to local finances, according to González & Gómez (2020:396-397) correspond to what is pointed out by the following authors:



- ✤ L. Sour in 2013, states that by increasing the amount of these participations, municipal governments spend more than the equivalent of an increase in private income, a phenomenon known as 'flypaper'.
- E. Stein in 1999, considers that with fiscal federalism, local governments increase their current spending and do not carry out productive activities, because they do not collect these revenues, since they are granted by the federation.

The flypaper effect describes that local governments increase their public spending to a greater extent when it comes from participations or intergovernmental transfers, than when it comes from their own revenues. Derived from the aforementioned effect and the fact that central government politicians did not design the transfers suggested by the normative theory, what came to be called the new theories of fiscal federalism began, according to W. Oates (2008; cited by Porto et al, 2018: 6), where one branch of these new theories is the political economy of fiscal federalism.

In one of the main classifications of shared taxes, it is said that there are two modalities: direct attribution and indirect attribution. The first is what is known as product sharing and its distribution depends exclusively on the amount collected. In the indirect attribution system, local governments that are adhered to a coordination or national tax system, are favored with a percentage of the national taxes, where that amount is accumulated in a 'fund', which will be distributed based on criteria and formulas approved by the national congresses.

I can summarize that the shared tax funds are generally distributed based on three variables or indicators: Gross Domestic Product (GDP), population and economic or financial situation of the locality. According to the Ley de Coordinación Fiscal (LCF) -Fiscal Coordination Law- in force in our country, the formulas for the distribution of federal participations are based on the following variables: 1) Population size; 2) State or municipal GDP growth rate; 3) Growth and sustainability of local tax and fee collection, especially property tax and water collection.

Lago Peñas & Martínez-Vázquez (2010a; cited by Lago & Vaquero, 2016: 20-21) distinguish three families of tax decentralization models:

- Models of fiscal autonomy: where there is broad freedom in legislation and management, as is the case in the United States and Canada, where the central or federal treasury and the sub-central ones usually share taxable objects. In this model, there is great autonomy and self-government, because fiscal co-responsibility is guaranteed.
- Performance sharing models: where there is low fiscal autonomy and a preponderant role for transfers, as is the case in Germany and Australia. Here, improved tax management is possible, but tax responsibility and accountability are potentially reduced.
- Surcharge (commission) models: based on the local level of government, as is the case in Denmark, Norway and Sweden, which is also used by Switzerland at the municipal level. The basic elements that make up the taxable event and the tax base, as well as the tax rate, are established by the central administration, while the sub-central authorities only have to autonomously set a surcharge and the central administration manages and collects the tax. The surcharge is understood here as a fee to be paid.

In any distribution or distribution of resources, there will be people or groups of people who will consider themselves affected by the formulas or techniques used, also in the public sector there will be



local governments that feel disadvantaged and others will insist on using other indexes or variables that favor them.

Regarding the experience of different countries in the distribution of fiscal funds, the Consejo Nacional de Evaluación de la Política de Desarrollo Social (CONEVAL) -National Council for the Evaluation of Social Development Policy- (2017: 16) mentions that in Argentina the National Teacher Incentive Fund, intended for the payment of teachers' payroll, is distributed based on these variables: a) Fixed amount based on the number of inhabitants per teacher; b) Variable amount subject to hours worked by teachers; c) Aportment conditioned to the collection capacity of the provinces.

Silva Ruiz et al (2017: 140) mention that in Colombia the general system of participations or also known as intergovernmental transfers, presents as the main form of calculation: the average growth of the percentage variation of the Current Revenues of the Nation in the last four years; until 2016 they also used as a calculation formula the inflation indicator plus a fixed percentage and another for education, with the condition that the amount allocated in total was greater than 4%; in another of its funds intended for health and education it establishes the additional 10% for administrative efficiency

Entering what is known as federal aportments in Mexico, in other countries they are also known as subsidies, conditional transfers or aid from other levels of government. Federal aportments or subsidies will have to be granted in order to achieve national development objectives in local territory, where they could be granted in order to stimulate consumption, reduce poverty, raise the level of education, increase social, medical and police security, among other social development actions. Where they could also grant federal aportments to persuade people to carry out negative activities within the municipal territory.

The fundamental points or conditions that should be taken into account when distributing federal aportments or subsidies are: a) That resources are granted only if there are plans and programs defined at the local level; b) That there is strict control and evaluation of the use of resources, by means of autonomous auditing bodies, which focus on the inspection and substantive and direct control of the works or projects. When there are no administrators capable of managing the works or projects in the most economically backward municipalities, it is suggested that there be civil society bodies with full autonomy that can advise and assist these types of localities.

3. Municipal Public Revenues

The municipalities are the basis of the territorial, organizational, political and administrative division of the Mexican State, since they are the ones that provide the primary public services demanded by the country's population, thus constituting the basic cell of government, the main generator and endogenous engine of economic development, through their governmental actions, being the municipalities the first to face social conflicts due to their proximity to the citizens (Gallardo, 21016: 415).

Municipalities are a key and essential element within the country's political structure, which is why they are recognized as having a strategic role in the construction of the economic, sustainable and human development process, since they are the sphere of government that has the closest and most direct relationship with society, where the forces and initiatives of different actors within their local territory come together.

The economic activity carried out in the territories of the municipalities is what fundamentally determines and explains the structure and amount of public revenues that the municipalities will receive. Authors such as Rodríguez Bolívar, Navarro Galera, Alcaide Muñoz and López Subirés (2106; cited by



Estrada, 2020: 136) have worked on the factors that can influence the performance and sustainability of local public finances, arguing that municipal administrations have a closer link to satisfy the public needs of citizens and assume a greater burden for the public services provided.

In this sense, Camacho Castro et al (2017: 65) indicate that the step to follow is to restructure collection strategies to achieve the recovery of local public finances, where national and subnational governments should try to boost local economic development, especially in Latin American countries that show a Gini coefficient above 0. 50, while in European countries this indicator is around 0.31, which means great efforts are required to achieve the much-desired collection efficiency of local governments, which can have an influence on improving the redistribution of wealth.

For Tijerina Guajardo & Medellín Ruiz (2000; cited by Madrigal, 2021: 139) financial dependence cannot be solved by changing the formula of participations or increasing federal transfers, but it could be solved to the extent that local revenues can be increased, which entails increasing tax powers and, above all, improving the administrative capacity of these governments.

In the opinion of García Cárdenas et al (2020: 332), for the exercise of decentralization it is necessary to have financial autonomy, since it is illogical to expect local authorities to attend to collective needs without having their own resources to face public spending. Financial autonomy measures the capacity of a municipal government to cover the expenses associated with the provision of municipal public goods and services to its community. The degree of financial autonomy possessed by a municipal entity and granted by Article 115 of the Political Constitution of the United Mexican States is presented as a relevant variable to measure the results of its management (Huerta & Vanegas, 2020: 115 and 123).

Revenue management is directly related to the administrative capacity to access resources, which is why the first step is to identify the possible sources of income that municipal governments have, where the legal norms that allow them to obtain income should be clearly defined, as well as the advantages and disadvantages of the use of each source of financing. It is also important not to lose sight of the fact that contributions are the main source of financing for the different governments, which is a highly political issue that must be taken into account to achieve the best tax results (Silva et al, 2017: 57).

In the history of the country, tax collection has proven to be very low at the three levels of government, but those who suffer most from this problem are the municipalities, which are far from providing the public services required by their inhabitants. Madrigal Delgado (2021: 13) summarizes the main authors who have dealt with the issue of low municipal revenues in recent years, stating in this regard:

Several studies have given an account of the low revenue collection of local governments (Chávez-Maza and Toache, 2019; De-Cesare, 2016; Unda-Gutiérrez, 2017; Bueno-Cevada et al., 2017; Frisby et al., 2019; Romo-de-Vivar-Mercadillo et al., 2017), which have wasted tax powers (ECLAC, 2019), where some municipal treasuries tend to have this problem more deeply rooted, there are municipalities in the country where their own revenues are less than 3%, and therefore base their finances on transfers. According to some studies (Cantú, 2016; Espinosa et al., 2018; OECD, 2020; Peña-Medina, 2016; Rodríguez-Sánchez, 2020; CEFP, 2014; Unda-Gutiérrez and Moreno-Jaimes, 2015), the untapped collection potential of municipalities is due to the limited administrative and technical capacity of these governments.

On the other hand, UN-Habitat (2011: 77; cited by Moreno, 2020: 92) points out that in Mexico the weight of federal transfers in municipal government revenues is 60% for metropolitan municipalities, 65% for the rest of urban localities and 84% in rural municipalities; on the contrary, the capacity to obtain



their own resources is 14% for metropolitan and 9% for urban municipalities, but only 1% for rural municipalities.

Wallace Oates (2005; cited by Mendoza, 2019: 308) has pointed out that the second generation of fiscal federalism models warns that fiscal dependence may incite laziness of local governments and stall the generation of their own revenues, in addition to promoting corruption and less accountability. Contrary to what happened in the first generation of fiscal federalism theory, where public officials did not necessarily make decisions seeking the common good (González and Gómez, 2020: 396).

Mendoza Velázquez (2019: 309) makes us see that authors such as Lewis and Someke, León Moreta, Carega and Weingstan, Poschl and Weingast, Kraemer have argued in a similar sense to the fiscal laziness that local governments may present. For his part, Madrigal Delgado (2021: 13) points out some of the authors who have been investigating the phenomenon of fiscal laziness in our country:

Some research is conducted around that transfers can cause fiscal laziness (Bonet-Morón et al., 2018; Chávez-Maza and Toache, 2019; Valenzuela-Reynaga and Hinojosa-Cruz, 2017). And those who find a negative effect of transfers on property tax collection (Canavire and Zúñiga, 2015), as it reduces local effort because it prefers to finance expenditures with transfers derived from the central government, and thus avoid the political and administrative price that increasing tax collection would imply. This leads to the presence of the flypaper effect (Flores et al., 2020; Díaz and Montelongo, 2017; Herrera et al., 2019; Sour, 2016).

For his part Unda Gutiérrez (2021: 53) makes us see about the works on this topic:

The works that have analyzed municipal revenue collection, or specifically the amount of property tax collected, argue that the transfers that municipalities receive from state or federal governments discourage the generation of their own revenues (Sour, 2004, 2008; Canavire and Zúñiga, 2010; Zúñiga, 2010).... Only Sour (2008) analyzes all the municipalities in the country and only Canavire and Zúñiga (2015) and Zúñiga (2010) focus on the relationship between property tax collection and transfers. Sour analyzes the fiscal effort (own revenues) in both works (2004 and 2008).

On the opposite side of the fiscal laziness theory or hypothesis, several authors have empirically demonstrated a positive relationship between national government subsidies, whereby such transfers do not automatically translate into a reduction in taxes, among which Estrada Escoto (2020) points to these authors:

Allers and Vermeulen, 2016; Baskaran, 2016; Bastida et al., 2013; Brusca et al., 2015; Chortareas et al., 2016; Gennari and Messina, 2014; Guo, Liu and Ma, 2016; Rios et al., 2017; Veiga and Veiga, 2007; Wang and Hou, 2012). On the other hand, Dalle and Kauder (2017).

Mendoza Velázquez (2019: 334) in his conclusions with the econometric model he ran, points out that federal participations negatively impact the generation of own revenues and transparency as a whole, however they encourage accountability of local public finances; while federal aportments discourage both the generation of own revenues and accountability and transparency of information. Adding in this regard:

From the impulse-response analysis we find evidence in favor of the fact that federal transfers (participations and aportments) incite laziness in the collection of local governments, especially those with greater economic development...In states with lower economic development, aportments have an initial negative effect, both on accountability and transparency.



Gaona Montiel (2020: 109) mentions that in the last years of the last century and in the first decade of the new century, an attempt was made to give strength to local governments in our country, providing them with more resources and regulatory elements so that they could implement better public policies in education, health, infrastructure and for attention to poverty; At the beginning of the second decade of this century, the achievements and objectives of economic and social development reached under the responsibility of local governments were questioned, despite the fact that enormous transfers of resources were made, which did not fully satisfy the social demands in their territories, and poverty could not be combated.

On the other hand, experiences of studies carried out in Colombia in 2005 by J. Núñez (2005; cited by Castro & Carvajal, 2020: 100) noted that in response to resources coming from the decentralization experienced in that nation, local public resources began to grow, noting: "...the fiscal effort decreased, however, in response to decentralization there was a tendency of growth in municipal revenues as of 1992, which implies that the hypothesis of fiscal laziness is unfounded". In a similar sense, in the same Colombian nation, X. Cadena (2002; cited by Castro & Carvajal, 2020: 101) points out:

He found that, when there is an increase in transfers, the behavior of tax revenues improves, especially in the case of property tax, thus highlighting that this result shows that transfers do not contribute to fiscal laziness, but rather that the fiscal effort is determined by the demographic and socioeconomic characteristics of each municipality.

In the Peruvian experience, Quispe Álvarez (2021: 96) observed that during 2010-2018 municipalities maintained high dependence on transfer revenues, which could lead to problems of fiscal laziness, expressing:

In this context, in order to determine the existence of fiscal laziness under a scheme of intergovernmental transfers, econometric estimations were carried out that allow us to conclude that in Peru intergovernmental transfers (Foncomun and Canon) do not generate fiscal laziness in municipal tax collection.

In the opinion of J. Zawora (2018; cited by Estrada, 2020: 135) the satisfaction of basic social needs and the possibilities of development in the community, depend on the public revenues of local governments, both their own and external, as well as on the ability to use these resources effectively.

It is considered necessary to develop collection management strategies to improve revenue collection through self-management, for which it is necessary to implement actions that help to generate municipal revenue sources, which will make it possible to depend less and less on federal budget allocations. García Cárdenas et al (2020: 341) propose four phases for the implementation of the self-management collection strategy: 1) Design of strategies for the budget cycle; 2) Elaboration of implementation instruments; 3) Strategy execution; and 4) Evaluation through indicators.

Regarding municipal own revenues, Unda Gutiérrez (2019: 5) states that: "Own revenues are defined as such because they are those established by the municipal finance laws or financial codes, linked to the direct tax effort of the municipalities". Municipal own revenues collected by municipalities can serve as a proxy variable to measure local fiscal performance or the administrative capacity of municipalities in tax collection (González & Gómez, 2020: 402).

Municipal revenues include: 1) Contributions: taxes, duties or fees and special for improvements, which come from public law; 2) Products, goods and services derived from private law; and 3) Take advantage: surcharges, fines, and updates, which are generally accessory to contributions.



In conceptual terms, a tax is a contribution demanded and without any consideration that falls on individuals or legal entities, which is intended to meet the expenses and needs of the State, where such contribution must be supported by a legal rule that supports it. Property tax is considered the main tool and source of tax revenues for municipal governments, in addition to being considered the best way to tax the wealth and patrimony of individuals. Real estate taxes should constitute the main item of municipal own revenues.

The increase in property tax collection entails various economic benefits, the main one being that of providing municipalities with greater capacity, which would allow them to better fulfill the offer of basic public services, seeking to be a promoter and driver of local development, while at the same time strengthening their human and institutional capacity, which would be reflected in a better financial situation.

Unda Gutiérrez (2021: 51) mentions that the virtues of the property tax are: 1) High collection potential; 2) Stability in revenues due to its base; 3) A certain degree of progressivity; and 4) It allows the exercise of the principle of benefit.

4. Quantitative Information on Municipal Public Finances in Mexico

Until 1925, more than one hundred different taxes coexisted in the country, not counting municipal levies, because in addition to the federal tax system, each federative entity established its own taxes, affecting the same objects of collection. Three tax conventions were held in the country, but I do not intend to analyze them here; there are good works for that purpose (Retchkiman, Martínez, Gil, Núñez, among others).

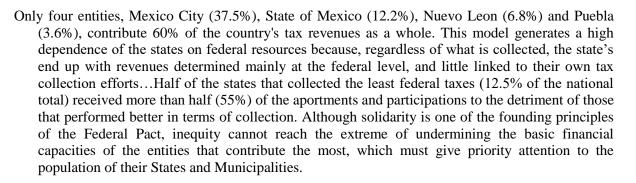
The first national fiscal convention was held in 1925, where the objective was to put an end to double taxation in the country, establishing in it a participation in the product of federal taxes for the States. The second fiscal convention was held in 1933, agreeing that the federal entities would have a participation in the income tax. The third fiscal convention was held in 1947, where it was resolved that Banco de México would intervene to guarantee the federal participations to be delivered to the local governments.

In 1953, the Fiscal Coordination Law (Ley de Coordinación Fiscal, LCF) was enacted, which governs the fiscal relations of the distribution of tax revenues among the three levels of government. The National Fiscal Coordination System is derived from the Fiscal Coordination Law.

Prior to the first reform of Article 115 Constitutional, all municipalities in the country in 1983 only received 2.6% of the national public revenue, the 31 states received 12.5%, the former Federal District Department received 4% and the Federation kept 80. 9% of the national public revenue; in 2018 municipalities receive 6.5% of the national public revenue, the 31 states are left with 27.4%, Mexico City with 2.4%, the municipalities with 7.1% and the Federation with 63.7% of the national public revenue (Villalobos, 2020: 27). For 2019, municipalities receive 6.6% of the national income, the 31 entities 26.3%, Mexico City 2.3% and the Federation keeps 64.8% of the national public sector income.

As we can see, the winners of the distribution of national public contributions in these 36 years are the state governments to a greater extent and to a lesser extent the municipal governments. The loser was the government of Mexico City.

A fact emphasized by the Confederación Patronal Mexicana (COPARMEX) -Mexican Employers' Confederation- (2019) points out about the public revenues of the federative entities:



Given the evidence of these figures presented, although I recognize that the State must redistribute income as its most important economic activity, I must also be aware that if the most productive entities and municipalities, or those with a higher degree of economic development, are bled too much, they may 'rebel' against the National Fiscal Coordination System, as happened at the end of the year 2020 with several governors in opposition to the current government, but motivated exclusively by electoral and partisan issues.

The Inter-American Development Bank (IDB, 2015; cited by Porto et al, 2018: 1) makes us see that in the last three decades, several countries in the Latin American region achieved significant progress in fiscal decentralization, at the beginning of the first decade of the century, subnational governments executed about 25% of total public expenditures, which represented almost double the percentage recorded for 1985.

Comparing that figure with our country, we have that if we add state and municipal governments we would have that in 2019 they managed 32.9% of national public revenues, if we add the government of Mexico City, we would have 35.2% of national public revenues. Thus, we see that the reforms to fiscal coordination gave more resources to Mexico's subnational governments, compared to the average of subnational governments.

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It is not possible to understand the federal participations received by state and municipal governments without commenting on the Fiscal Coordination Law (Ley de Coordinación Fiscal: LCF), which is made up of 52 articles. Article 1 of the LCF establishes the objective of coordinating the federal fiscal system with the states and municipalities, in order to establish the amount of participations and aportments to be received from federal revenues by these spheres of government. The federal participation funds are regulated in articles 2 to 9 of the LCF.

Federal participations are also known as Branch 28 and are composed of fourteen funds, most of which are distributed according to two main variables: the state GDP and the efficiency in the collection of local contributions, mainly concerning property and water taxes.

To put into context, the importance of federal participations in local public finances, they represented 37.1% of total municipal public revenues in 2018, reaching 38.5% in 2019.



For CONEVAL (2017: 36), the Branch 28 presents compensation character and aims to ensure that the federal entities receive resources in proportion to their collection and economic activity, with which it is used as an economic policy instrument to encourage economic growth and the collection effort.

	2018		2019	
CONCEPT	Amount	%	Amount	%
Total Revenues	455,090.05	100.0%	480,492.50	100.0%
1. Ordinary revenues	434,849.90	95.6%	465,951.79	97.0%
1.1 Municipal own revenues	102,774.59	22.6%	111,203.03	23.1%
1.2 Federal participations	168,712.24	37.1%	185,031.18	38.5%
1.3 Federal-State aportments	163,363.07	35.9%	169,717.58	35.3%
2. Extraordinary revenues	20,240.15	4.4%	14,540.71	3.0%
1.2.1 Participating funds (Branch 28)	156,653.56	34.4%	171,950.55	35.8%
1.2.1.1 General participation fund	102,505.79	22.5%	111,423.63	23.2%
1.2.1.2 Municipal promotion fund	24,377.53	5.4%	26,491.20	5.5%
1.2.1.3 Audit fund	8,475.82	1.9%	9,236.44	1.9%
1.2.1.4 Income tax fund	12,383.16	2.7%	15,245.21	3.2%
1.2.1.5 Automobile taxes	8,911.26	2.0%	9,554.07	2.0%
1.2.2 Other participations	12,058.68	2.6%	13,080.63	2.7%
1.3.1 Aportments (Branch 33)	113,046.43	24.8%	134,184.89	27.9%
1.3.1.1 FAIS (Social Infraestructure)	49,750.95	10.9%	61,063.99	12.7%
1.3.1.2 FORTAMUNDF (Muncipal)	63,295.48	13.9%	73,120.90	15.2%
1.3.2 Federal-state resources	50,316.64	11.1%	35,532.69	7.4%
1.3.2.1 Federal resources	41,071.47	9.0%	26,266.66	5.5%
1.3.2.2 State resources	9,245.17	2.0%	9,266.03	1.9%

Table 1. MUNICIPAL PUBLIC REVENUES 2018-2019. Millions of pesos

Source: Own elaboration. With data from INEGI: State and Municipal Public Finances. Predefined Tabulations: Municipal Finances. Municipalities Revenues 2018-2019.

Article 2 of the LCF establishes that the Fondo General de Participaciones (FGP) –General Participation Fund- will be constituted with 20% of the federal revenue obtained by the Federation, where the fund will be constituted by the net taxes and mining rights (except for some specific groups) and by 80.29% of the federal petroleum revenues (the same with exceptions). In my point of view, Article 6 of the LCF is one of the most important and fundamental for the municipal sphere, since it establishes that municipalities must receive from their federal entities at least 20% of the participations obtained from the General Participation Fund (FGP).

The General Participation Fund (FGP) distribution formula is determined by the amount received in 2007 by the federal entities and municipalities, plus an increase based on two coefficients: 1) State GDP, which grants 60% of the fund; 2) State Taxes, including property and water taxes, which grant 40% of the FGP, where the latter coefficients are considered as collection incentives. To appreciate the magnitude and importance of the FGP, we can see in Table 1 that the country's municipalities receive 22.6% of all municipal public revenues in 2018 and 23.1% in 2019.

Sánchez et al (2015: 94; cited by Gaona, 2020: 109) makes us see that the process that is recognized as 'recentralization' of functions, occurs in Mexico from the reduction of state and municipal



competencies between 2012 and 2018. At the same time, the Fiscal Coordination Law was modified in 2014, where an incentive and prize was granted by ceding the collection of property taxes to state governments, to the detriment of municipal governments.

According to CONEVAL (2017: 39), 25% of the resources of participations (Branch 28) were destined to the State of Mexico and Mexico City, while Baja California Sur, Colima and Tlaxcala concentrate little more than 2% of the total participations.

The main objective of the federal aportments or Branch 33 is to seek balance and equity among the public resources distributed among the different regions of the country. The Institute for the Technical Development of Public Finance (NDETEC, 2019:10) defines them:

Branch 33 "Federal Aportments for Federal Entities and Municipalities" contains resources destined to the fulfillment of the purposes foreseen in the LCF, namely: Basic and Normal Education, health, fight against poverty, social assistance, educational infrastructure, strengthening of federal entities, municipalities and Mexico City mayoralties, public safety, technological and adult education.

Ángeles, Salazar and Sandoval (2019: 108) point out regarding the issue of aportments:

The distribution of the branch is made following a fundamental objective of federalism related to the principle of equity, as an increasing proportion of spending is allocated to the entities with higher levels of poverty (SHCP, 2017). Thus, Branch 33 is a serious attempt to federalize public social spending in a compensatory way to boost the economy of the regions, especially the neediest.

There is an obligation to allocate the resources of the aportments, to meet their stated objectives, as stipulated in Article 25 of the LCF. At the beginning there were five funds and currently there are eight, being the main ones for municipal revenues: Fondo de Aportaciones para la Infraestructura Social (FAIS) -Aportments Fund for Social Infrastructure- and Fondo de Aportaciones para el Fortalecimiento Municipal de las Demarcaciones Territoriales del Distrito Federal (FORTAMUNDF) -Aportments Fund for the Strengthening of Municipalities and Territorial Demarcations of the Federal District-. The former is destined to works, actions and investments that benefit people living in extreme poverty or in localities with high and very high risk of social backwardness. The second is destined primarily to the payment of financial obligations, drinking water service, modernization of the cadaster and maintenance and infrastructure of public safety.

The FAIS is regulated by articles 32 to 36 of the LCF and the funds are regulated by the Welfare Secretariat. FORTAMUNDF is governed by articles 36 and 37 of the LCF and the funds are regulated by the Ministry of Finance and Public Credit. Article 32 of the LCF establishes that the FAIS will be funded by 2.5294% of the federal participatory tax collection stipulated in Article 2 of the LCF, of which 0.3066% will correspond to the states and 2.2228% to the municipalities.

The amount of the FAIS was determined in 2013 and each year said fund will be increased, according to the following calculations: 1) 80% will be allocated to the population in extreme poverty, information to be provided by CONEVAL, which in turn is obtained from data on the Deprivation of the Population in Extreme Poverty and Population in Extreme Poverty (PPE); 2) The remaining 20% will be distributed among the PPE related to two previous years. For Mexico City the fixed amount of the FAIS was set at 686'880,919 pesos in 2013, which will be updated every year, in accordance with the second paragraph of Article 34 of the LCF.



FAIS represented 10.9% of total municipal revenue in 2018 and 12.79% in 2019. If we were to put in order the federal funds destined by federal participations and aportments to municipalities in the country, FAIS would rank third, after FGP and FORTAMUNDF.

FORTAMUNDF will have a redistributive character and its resources will be allocated based on the magnitude and depth of extreme poverty in the localities, with information to be published by the CONEVAL (article 35 of the LCF), will be made up of these amounts from federal tax revenues: 2.35% in general and 0.2123% for Mexico City (article 36 of the LCF).

The FORTAMUNDF resources will be used on a priority basis to comply with financial obligations, to pay water and sewage fees and charges, to modernize local collection systems, to maintain infrastructure and to provide public safety services, In addition, it is stipulated that resources will be distributed in direct proportion to the number of inhabitants of each federal entity, based on information issued by the National Institute of Statistics, Geography and Informatics (INEGI), and the entities in turn will distribute it to their municipalities according to the registered population, in accordance with the provisions of articles 37 and 38 of the LCF.

FORTAMUNDF is the second fund of the federal participations and aportments received by the country's municipalities, ranking only below the General Fund of Participations, coming to represent 13.9% of total municipal revenues in 2018 and 15.2% in 2019.

The resources of the Branch 33 or federal aportments received by the country's municipalities, have become one of the fundamental and essential sources of municipal public revenues in the nation, as a sample of the importance they have, it is appreciated that they represent 35.9% of total municipal revenues in 2018 and 35.3% in 2019. CONEVAL (2017:97) points out that federal aportments (Branch 33) are considered a very important aspect for the income of the country's municipalities, in particular representing a third of their income and in some cases 50% of their income as in municipalities in Chiapas and Oaxaca.

Madrigal Delgado (2021: 137) takes up some articles of his predecessors and points out that Carmona and Caamal (2018) show that participations increase inequality and aportments reduce it, data contrary to those presented by authors such as Ángeles Castro et al (2019), where they show that contributions have no effect in reducing inequalities.

Table 1 allows us to appreciate that most of the income of the 2,441 municipalities in the country (not including the 16 mayoralties of Mexico City) comes from federal participations and aportments, representing 73% and 73.8% of their total income in 2018 and 2019. With which we see that there is great dependence on federal resources in the financing of the country's municipal governments.

Taxes represent 13.5% and 13.9% of total municipal revenues, these include real estate taxes (property, transfer of ownership and acquisition of real estate) which represent 10.5% and 10.4% of total municipal revenues. Other municipal taxes, in order of importance, are: 1) On patrimony; 2) On production, consumption and transactions (amusements and public spectacles, lotteries, raffles, sweepstakes); 3) For education; 4) For urban infrastructure works.

Fees or rates represent 5.9% and 6.2% of total municipal revenues in 2018 and 2019 respectively, among the main items in descending order we find: 1) fees for public lighting; 2) Licenses and permits (for construction, noxious commerce and street commerce); 3) Fees for various public services; 4) Urban development and public works services; 5) Cleaning and garbage collection services; 6) Use and supply of drinking water. In addition, there are fees for: civil registration, certifications and certificates, for the



use or exploitation of municipal resources, cemeteries, slaughterhouses, markets. The revenue figure for water use and supply rights in 2019 barely reaches 0.28% of the total municipal revenue.

Special contributions for improvements are practically non-existent in Mexico's municipalities. Products or private law assets represent 1.1% of total municipal revenues in 2018 and 2019, the main products are: interest, alienation or sale of real estate, establishments and companies, leases, recreational and cultural centers. The take advantage represent 1.8% and 1.9% of total municipal revenues in 2018 and 2019, respectively. Among the main municipal take advantage are: fines; donations and benefits in favor of the State; refunds; arrears, execution expenses.

Of the municipal own revenues, the relative participation of each concept of revenue during 2018 and 2019 is presented:

- Taxes: 60% in both years, of which real estate taxes mean: 47.1% and 45% of municipal own revenues.
- Duties: 26.3% and 26.7%.
- Products: 4.9% and 4.7%.
- Take advantage: 8.1% and 8%.

In terms of taxes the percentage in relation to total revenues has remained for four decades in similar figures: in 1970 they represented 30.4%, in 1976 16.9%, in 1982 11.3% (Villalobos, 1986: 69), in 2017 12.6%, in 2018 13.6% and in 2019 13.9%.

In most nations, property tax is the backbone of local public finances, which is not the case in Mexico. The tax revenue collection of municipalities is composed of 80% of real estate property taxes, which for J. Moreno (1995: 36-37; cited by Moreno, 2021: 96) opens the perspective of becoming a tax policy instrument with collection potential, without compromising tax progressivity.

Duties in relation to total municipal revenues represented: 14% in 1970, 10% in 1976 and 13.8% in 1982 (Villalobos, 1986: 76), while in 2017 5.7%, in 2018 5.9% and in 2019 6.2%.

Duties came to represent 13.8% of total municipal revenues in 1982, a higher percentage than taxes in that year, which was 11.3%. The fact that municipal duties were higher than taxes is explained by the fact that after the reforms to the Fiscal Coordination Law, in section III of Article 2-A clause (b), it is established that from 1% of federal revenues, 83.2% of the increase in the Municipal Development Fund will be distributed only to the federal entities that are coordinated with the Federation in terms of duties. This clause was an incentive for local legislatures to no longer establish higher amounts for royalties in their respective revenue laws, and as a result, municipalities currently collect lower amounts from this figure than they did in the early 1980s.

Another very important indicator is the relationship established between the real estate property tax (here we call it property tax) in relation to the territorial GDP, I could corroborate that there are several non-homogeneous data on the collection of property tax as a percentage of GDP in other countries and in the Mexican nation itself, the most credible information at the international level is that provided by the Organization for Economic Cooperation and Development (OECD, 2020), in this regard indicates for the year 2019: in France property tax represents 4. 03% of GDP, in Great Britain 4.08%, in Canada 3.87%, in the United States 2.96%, in Spain 2.43%, in Colombia 1.79%, in Chile 1.12% and in Mexico 0.33% of GDP. These figures presented for our country are corroborated by data provided by Villalobos López (2020: 41):



The real property tax (property tax, transfer tax of domain and acquisition tax) in our country represents 0.33% of GDP in Mexico in 2018, already adding Mexico City in that percentage. Very low compared to the two Latin American countries and of course even lower than the OECD countries.

Another interesting fact provided by the Instituto Mexicano de la Competividad (IMCO) - Mexican Institute of Competitiveness- (2019:18), is that in 2015, out of every 10 pesos collected from property taxes in the country, 3.70 pesos came from Mexico City. This figure is expected to reach 4 pesos out of 10 by 2020.

What IMCO (2019:20) calls municipal heritage tax is composed of property tax, transfer of ownership and acquisition of real estate, where in 2016 the states where more property tax is collected in relation to state GDP are: Querétaro with 0.71%, Quintana Roo with 0.65% and Baja California Sur with 0.64% of GDP; while the worst states are: Aguascalientes with 0.04%, Zacatecas with 0.05% and Campeche with 0.05% of state GDP.

The results show that national property tax collection is supported by five states and Mexico City, which collect more than 70% (Madrigal, 2020: 135). Unda Gutiérrez (2001: 68-69) has observed that the localities where more property tax is collected are located in entities such as Quintana Roo, Baja California Sur, Morelos, Nayarit and Nuevo León, which are distinguished by having outlier municipalities (abnormal and extreme observation in a statistical sample), which in these cases are tourist destinations. Quintana Roo has Isla Mujeres, Solidaridad and Tulum, which are in second, third and fourth place as the best collectors; Baja California Sur has Loreto and Los Cabos, which are in fifth and twelfth place. In this regard, he comments:

The above suggests that municipalities that are tourist destinations -beaches mainly- move away from the regular characteristics of the other municipalities. One hypothesis to explain this behavior is that the high value of real estate (hotels) and the ownership of property rights in the hands of foreigners may have something to do with the "skyrocketing" behavior in tax collection in these municipalities. But this remains to be verified. The dispersion of Nuevo León, on the other hand, is most likely explained by the fact that it has the highest tax collection in the country in recent years: San Pedro Garza García.

The main challenge faced by the country to improve property tax collection is concentrated in rural areas, due to these factors: 1) The lower value of rustic properties; 2) The greater administrative incapacity of municipal authorities in rural areas; 3) The exemption of the ejido (Unda & Moreno, 2015: 45).

The low collection of property tax, in the opinion of N. Cantú (2016, cited by Madrigal, 2021: 136) is due to the excess of exemptions, lack of qualified personnel, lagging values and a culture of non-collection. In addition, other authors recognize that most municipality's present technical difficulties, low qualification of human resources and above all that the annual updates that should be made to the cadastral registry are not carried out.

Conclusions

Fiscal decentralization is the process in which the federal government transfers economic resources, public power and administrative decision-making capacities to local governments (state and municipal). Fiscal federalism studies the financial problems that arise as a result of decentralization among the different levels of government. Federal participations or shared taxes are resources granted to state and municipal governments as compensation for not collecting contributions reserved for the central (federal) level, which will be distributed based on the applicable legislative norms and where no

indication will be given as to what these resources are to be used for. Federal aportments or conditional transfers are resources that are delivered to local governments, seeking to stimulate or achieve national development objectives in local territory.

The degree of satisfaction of the basic public needs of the communities and their possibilities for economic and social development are conditioned by the public revenues collected by the municipalities, which makes it essential to improve collection strategies. Municipal revenues are obtained through the fiscal effort made by local administrative authorities, mainly from contributions (taxes, duties or fees and special taxes for improvements), as well as products (derived from private law) and take advantage.

In 1983, before the applications to the first reform of article 115 of the Magna Carta, of the national public income: all the municipalities of the country received 2.6%; the 31 states 12.5%; the Federal District Department 2.6% and the Federation 80.9%. For the year 2019, the municipalities receive 6.6% of the national public income; the 31 states 26.3%; Mexico City 2.3% and the Federation 64.8%.

The immense degree to which federal revenues (participations and aportments) contribute to municipal public income is appreciated when of their total income they came to represent 73% in 2018 and 73.8% in 2019, which would mean that of every 4 pesos of income received by the country's municipalities, 3 pesos come from federal contributions.

Locating the central resources received by the country's municipalities, federal participations (Branch 28) represented 37.1% of total public revenues in 2018 and 38.5% in 2019. As for federal apartments (Branch 33), these represented 35.9% of total public revenues in 2018 and 35.3% in 2019. With these figures we see the dependence that local governments have on federal revenues.

Of the federal participations or Branch 28 the funds that deliver the most resources to municipalities are two: the General Fund of Participations (FGP) and the Municipal Promotion Fund (FFM). The federal aportments or Branch 33 are conditioned to certain works and activities, not being able to transfer resources for other purposes, the most important are the Fund Aportments for Social Infrastructure (FAIS) and the Fund of Aportments for the Strengthening of Municipalities and the Territorial Demarcations of the Federal District (FORTAMUNDF); the FAIS dedicated to benefit people in extreme poverty or localities with high and very high social backwardness; the FORTAMUN for the payment of financial obligations, potable water, modernization of cadaster and public safety.

In order to have an idea of the relative participation of the four funds that deliver the most resources to municipal treasuries, I present this information in relation to total municipal public revenues:

- General Participation Fund (FGP) Branch 28: 22.6% in 2018 and 231.1 in 2019.
- ◆ FORTAMUNDF Branch 33: 13.9% in 2018 and 15.2% in 2019.
- ✤ Fund Aportments for Social Infrastructure (FAIS) Branch 33: 10.9% in 2018 and 12.79% in 2019.
- Municipal Promotion Fund (FFM) Branch 28: 5.4% in 2018 and 5.5% in 2019.

Own or tax effort revenues accounted for 21.4% of total municipal public revenues in 2017, 22.6% in 2018 and 23.1% in 2019. Municipal taxes accounted for 60% of municipal own revenues in 2018 and 2019, while real estate taxes (predial and trasla-do de dominio) accounted for 47.1% of municipal own revenues in 2018 and 45% in 2019.

At the international level, the relationship between property tax and GDP is widely used to try to explain the effectiveness of the local tax effort, in Mexico it captures only 0.33% of GDP, while in



France, Great Britain and Canada it captures more than ten times that percentage, with the corresponding figure for Colombia being 1.79% and in Chile 1.12%. In 2020, out of every 10 pesos collected in the country by property tax, 4 pesos come from the Mexico City municipalities.

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