

Municipal Property Taxes with an environmental bias: IMI in Portugal and Green IPTU in Salvador (BA) - Brazil

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Abstract—This paper investigates proposals for municipal taxation with an environmental bias, focusing on the municipal property tax (IMI), in Portugal, after the Green Tax Reform, and the Urban Building and Land Green Tax (Green IPTU) in the city of Salvador, Bahia/Brazil. The methodology used is the sustainability SWOT analysis, according to Metzger et al (2012) in which were verified internal strengths and weaknesses, as well as external opportunities and threats in the implementation of environmental politics of taxation, comparing both ecological property tax experiences. Among the strengths, both legislation establishes municipal competence in the greening process in order to improve cities infrastructure. Among the weaknesses identified in both legislation is the possibility of discounting for properties located in protected areas, which violates other legal provision. One of the opportunities in both legislation is the adoption of economic resources incentives, with the award of taxpayers who have energy efficiency certification in their buildings, which corroborates the goals of sustainable development. Both legislations analyzed, which constitute economic instruments, motivate society to cooperate, in the long term, to achieve sustainability, including sustainable development goals.

Keywords—Economic Instrument, Municipal Property Tax with Environmental bias, Green IPTU, Ecotaxes, Environmental Value.

I. INTRODUCTION

Economic instruments are tools provided in public policies that assist in the execution of environmental management and can assist in reaching sustainable development.

One of the ways to correct negative externalities usually caused by economic activities, according to MMA (2020), is the use of economic instruments that internalize the external costs in the production and consumption structures of the economy, in the pursuit of performance improvement and management and environmental sustainability.

Many economic instruments have been studied, including those that create pricing mechanisms and economic incentives that benefit the protection of biodiversity and the provision of ecosystem services such as compensation schemes, conservation facilities, negotiable

licenses and resource use tax (PIRARD, 2012; SCHÖTER-SCHLAACK AND RING, 2011).

According to Tietenberg (2016), important environmental groups have realized that market power could be harnessed and channeled to environmental goals, through the regulation of economic incentives approach, that could even boost the competitiveness of the market organization.

Economic instruments work directly through economic principles and can be used by markets to adapt to impacts and risks or to indirectly encourage behaviors and increase the acceptance and efficiency of adaptation measures. (MECHLER et al, 2017).

Braun (2007) reports that innovative economic instruments, such as ecotaxes, are viable to help sponsor local sustainability, because taxes are permanently collected by the government and can be invested in long-term actions.

Two examples of ecotaxes are the Municipal Property Tax (IMI) with an environmental bias, from Portugal, and the Urban Building and Land Green Tax (Green IPTU), in Brazil. Both are municipal taxes on land, which landowners must pay annually.

The IMI, according to Aicep Portugal Global (2011), is due by the owner, usufructuary or surface owner of the building on December 31 of each year, which is levied on property taxation value (VPT), determined by assessment depending on the type of property (whether urban or rustic). According to Portugal (2003), in Art.3 of the Municipal Tax over Property Code (CIMI), the rustic buildings are characterized by being land with use that generates commercial and industrial income, located outside urban agglomerations, that doesn't have building purposes; or land located within urban agglomerations, provided that, under legislation, they cannot be used to generate any income or can only generate agricultural and forestry income and are having that destination; or buildings and constructions directly intended for production of agricultural or forestry income, when located on the land referred to in the previous situations; as well as land that is not built or has only ancillary buildings or constructions, without economic autonomy and of low value; and, finally, the waters and plantations in situations of buildings of land of any nature with a permanent character or endowed with autonomy.

Portugal is a European country which started the Brazilian tax matters with the Derrama tax, since the colonial period in the middle of the 18th century, in the state of Minas Gerais which, according to Aicep Portugal Global (2011), due to the decrease in gold revenues from Brazil.

With a relatively recent environmental tax reform, in 2014, compared to environmental discussions around the world, it included its property tax as an ecotax (AICEP PORTUGAL GLOBAL, 2011)

In the case of the Brazilian ecotax, the IPTU is provided for in the Brazilian Federal Constitution, in art. 156, item I, and in the National Tax Code, in arts. 32, 33 and 34, in which its operative event is property, useful domain or possession of immovable property, by nature or physical accession, defined in civil law, located only in the municipal urban area (LISBOA, 2016). The IPTU must be collected by the municipality that constitutes the smallest administrative territorial portion of Brazil. The Federal Constitution gives each municipality the prerogative to establish exemption or discount rules for properties in its municipality, considering federal guidelines.

Analyzing legislation that institutes economic instruments with an environmental bias is important as they are based on the principle of the protector-receiver and also

because they are a potential tool for achieving sustainability.

This study aims to compare economic instruments with environmental criteria, focusing on property taxes with environmental bias in Portugal, after the Green Tax Reform in the country, and the Brazilian Green IPTU, in the northeastern capital of Salvador, State of Bahia. In the case of Portugal, the legislation on urban properties covers the entire territory. In the case of Brazil, the legislation on urban properties is attributed to each of the municipalities, which must establish their local rules, according to some national guidelines, determined by the Federal Constitution.

The municipality of Salvador/Bahia/Brazil has a unique scoring scale model adopted, until then, by a Brazilian capital, through its Sustainable Certification Program Green IPTU, inspired by the international certification assessment system Leadership in Energy and Environmental Design (LEED™) and Haute Qualité Environnementale (HQE™); each with its defined evaluation criteria.

According to Lucas (2011), the system LEED™ analyzes the potential for environmental efficiency of a building by means of a list of prerequisites and required qualifying items.

The certification process HQE™, according to Hotta (2019), has as issuer of certification in worldwide with expert support, the Cerway founded by two leaders of Certivéa of France in 2013, for buildings and territories not residential and by the French Cerqual Qualitel Certification, for housing. The certification partners of HQE, in Brazil, we have the Vanzolini Foundation which, according to Hotta (2019), is also a training partner for organizations and universities in the field of construction and urban planning. From 2014, in Brazil, the HQE seal was adapted due to the technical cooperation between the Vanzolini Foundation and Cerway and became known as AQUA-HQE (HOTTA, 2019).

II. METHOD

The present study takes the form of bibliographic research and is classified as exploratory research, in view of the bibliographic survey carried out and the analysis of two experiences, one international and the other national. In Brazil there are 65 municipalities that have municipal legislations regarding property ecological tax according to Rodrigues (2019), to stimulate the research of the problem researched and built assumptions and comparisons. The choice by the municipality of Salvador justifies the choice of legislation in the municipality of Salvador / Bahia / Brazil because the data is available on the world wide web and,

therefore, with better access to information. Also, due to the fact that it has been in operation since 2015.

The method of analysis used was the Sustainability SWOT (S-SWOT), of Metzger et al (2012), arising from the SWOT. The S-SWOT is a matrix that can assist a strategic tool in the identification of internal variables of Strengths and Weaknesses and external variables of Opportunities and Threats that influence the organizational environment and the competitiveness of an organization, respectively (XAVIER, 2017).

The Sustainability SWOT methodology, as a support tool for strategic planning, proposes a wider scope when adopting the concept of sustainability in decision making when solving environmental problems (METZGER et al, 2012).

For this study it is considered as forces the behaviors induction potentials aimed at conservation of natural resources.

The weaknesses are revealed in the elements that are obstacles to the successful execution of the programs of the fiscal and environmental benefits chosen in this study.

Opportunities are identified by the benefits that municipalities can receive from the adoption of these environmental economic instruments in their municipalities in the interaction with other municipalities and programs, serving as a reference for other fiscal and environmental management.

The threats that can be used as a diagnosis of the situation of the tax and environmental benefit programs to propose new solutions and adaptations in the achievement of these, otherwise they may pose risks to the continuation of programs such as IMI with an environmental bias and Green IPTU because they are not updated, nor have they adapted or do not interact with environmental challenges.

Therefore, the content analysis and discussion of the feasibility of implementing tax benefit programs with the adoption of environmental technologies, through studies of the IMI with an environmental bias, in Portugal, and of the Green IPTU in Salvador (BA), in Brazil, allows comparing the implementation of environmental economic instruments and their repercussions in different reality.

III. RESULTS AND DISCUSSION

The Municipal Property Tax was contemplated in the Green Reform Tax, according to Ministry of Environment, Spatial Planning and Energy (2015), with the measure of Land and Forestry, with Law nº 82-D/2014, December 31 2014, with the inclusion of environmental criteria from Law nº 51/2018, which changed the Local Finance Law, approved by Law nº 73/2013, and with the new Municipal

Tax Code on Real Estate, approved by Decree-Law nº 287/2003.

Among the environmental measures in the property tax, the period of exemption from property tax increase from two to three years to urban buildings in urban rehabilitation; a 50% discount was granted on the application of the Property Tax for urban buildings intended exclusively for the production of energy from renewable sources; 15% discount on the application of the Municipal Property Tax for urban buildings with energy efficiency deliberated by the municipal assembly; 50% discount on the application of the Municipal Property Tax for rustic buildings in classified areas (with restrictions on use and occupation); besides exemption for buildings ceded by municipalities destined to the public water supply, sanitation and urban waste management and exemption on real estate in rustic buildings integrated into the national program Land exchange (MINISTRY OF ENVIRONMENT, SPATIAL PLANNING AND ENERGY, 2015).

This social innovation strategy instrument, Land exchange, according to Bittencourt (et al, 2016), started in Sever do Vouga, Aveiro district, in April 2013, to transform the abandoned lands for the development of agriculture and the economy of the local context, including encouraging the assignment of these lands, for sale or rent, to young farmers by proprietary citizens who do not have a profile for agricultural and/or agroforestry activities.

In Brazil, the Green IPTU initiative in Salvador, created by Decree nº 25.899, of March 24, 2015, in compliance with Ordinance nº 0034/2015, according to Azevedo (2017), instituted the IPTU Verde Environmental Certification Program in buildings in the Municipality, establishing tax benefits for Program participants.

The program qualifies, with bronze, silver and gold seals, the practices of environmental sustainability in the construction of a property, by means of criteria and the respective pre-defined score in its program (AZEVEDO, 2017). It is contained in municipal legislation of Salvador available at electronic site, updates through Decree nº 29.100 of November 6, 2017 and the Decree nº 31.437, of September 05, 2019.

If among the environmental criteria of the Program the owner of the property manages to add 50 to 69 points, he will obtain the Green IPTU Seal in the bronze category with a 5% discount on the IPTU; from 70 to 99 points, the Green IPTU Seal in the silver category corresponding to 7% discount in the IPTU and the Green IPTU Seal in the Gold category, if it obtains 100 points above corresponding to 10% discount in the IPTU (AZEVEDO, 2017).

The environmental criteria are divided into five categories, totaling 63 requirements for practices that can be

adopted by taxpayers in their ventures. The maximum score that can be achieved with the completion of all the 63 environmental criteria is 285 points, which required a minimum compliance of 50 points and a maximum of 100 points for the qualification of sustainability practices for the bronze and gold seals, respectively (AZEVEDO, 2017).

In Table 1 below, there is a summary of the results of the comparative analysis, through the S-SWOT analysis of the strengths and weaknesses, opportunities and threats of the main characteristics of the implementation of ecotaxes on properties in Portugal and Salvador, in Brazil.

Table 1 - Comparative analysis of the S-SWOT between Environmental IMI, from Portugal, and Green IPTU in Salvador / Brazil

Analyzed Variables	Strengths	Weaknesses	Opportunities	Threats
City tax	X/∞			
High tax collection potential	X/∞			
Tax incentives for Properties in protected areas		X/∞		
Environmental Criteria related to energy efficiency Certification in buildings			X/∞	
Non-compliance with public policies aimed at sustainable development with the requirement of a high sum to achieve benefits in bronze, silver or gold categories		∞		
Improvement of life for citizens, avoiding waste in other areas of people's lives	X/∞			
The lack of encouragement for the specified use of environmental devices or systems				X

Source: from authors (2020).

Legend: X - IMI of Portugal and ∞ Green IPTU of Salvador / Brazil

- As identified strengths in Table 1 of equity tax legislation with an environmental bias are:

- As a common point, both legislations are of municipal competence with high tax collection potential in their municipalities, that is, a source of income to invest in improvements for the city. In the case of Portugal, the process of "greening" of the tax systems existing in Europe incorporates environmental issues in its tax design, according to The ECD (1997).

Another force considered for both legislations was the encouragement of energy efficiency measures, in addition to contributing to the saving of natural resources in energy generation, it also relieves the payment of energy taxes to taxpayers, another economic sector that may be influenced by the adoption an ecological patrimonial tax.

The weaknesses identified in Table 1 are:

- As a common point between the two legislations identified as weakness, there is the incentive to discount or exempt of the tax in question for properties located in environmental areas with restrictions on use and occupation. These incentives are considered to be weaknesses of these fiscal and environmental programs as they lead to non-compliance of environmental laws. Areas that are necessarily to be protected could not be discounting or exemption object. By omission of public power incur anthropization of these spaces territorially protected and the owners are still awarded with exemptions or discounts under the restriction use claim.

- As a weakness identified in the Green IPTU program in Salvador, the requirement of a high score in the sum of the criteria, may mean privilege for the taxpayers with greater purchasing power who can more easily acquire environmental technologies in their properties. This fact meets the premises of sustainable development to address public policies to all citizens equally.

As identified opportunities can be mentioned:

- Both legislations adopt the incentive to economy resources, with the award of taxpayers who have energy efficiency certification in their buildings. What strengthens the importance of accredited Certifiers, considering, according to Menezes (2019) that one of the ways to make a construction more sustainable is to take into account aspects of energy efficiency in this branch that generates many negative impacts both in the construction stage and throughout the existence of the property, either by the resources it demands, or by the waste it generates.

As threats identified in both analyzed legislations are:

- In contrast to the Salvador legislation, which has 63 specific criteria for the adoption of environmental devices or systems, in Portugal, the failure to specify mechanisms for saving natural resources, hinders more specific protection actions in the sustainability of waters, soil, subsoil, air, fauna and flora and the final destination of waste generation.

The educational incentive of this study in the dissemination of ecotax experiences is fundamental to involve society in protecting the environment and actively supporting the sustainable development process, as was emphasized in the Rio-92 Conference, according to Braun (2007).

Despite the weaknesses and / or threats, with the diagnosis provided by this S-SWOT analysis, the possibility of correcting them and adapting them to the reality of each municipality, shows yet another strength and an opportunity at the same time for the adoption of ecotaxes in the municipalities of Brazil and the world.

IV. CONCLUSION

The adoption of economic instruments with an environmental bias shows the transformative action in different realities that can be continuously adapted, corrected and improved.

The government has the competence to offer incentives to municipalities that aim to be sustainable, as is the case of IMI Portuguese with an environmental bias and Brazilian Green IPTU, specifically in the case of Salvador. Both legislations analyzed, which constitute economic instruments that motivates society to cooperate on the long term, to achieve sustainability, including sustainable development goals.

This study, therefore, contributes to the awareness that individuals, complex organizations and decision makers should acquire from the experiences of adopting ecotaxes for the involvement of society in protecting the environment, without loss of revenue required to conduct the different activities that are competences of the public power.

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