TAXES TO CAPTURE FINANCIAL SURPLUS GENERATED FOR THE PRIVATE SECTOR BY PUBLIC INVESTMENT IN TRANSPORT PROJECTS

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SUMMARY/ABSTRACT

The role of public finance is to investigate and discover how the efficaciousness of fiscal policy formulation and implementation by the public sector can be improved. This paper examines the possibility of capturing financial surpluses generated for the private sector by government investments in transport projects, making use of certain elements of public finance, particularly taxes. This type of study is needed to identify supporting elements for determining new investments in transport projects in the light of the current scarcity of resources in most Latin American countries. For many countries, capturing financial resources in this way could be considered as a key to economic growth and it could also serve as a supporting element for urban and/or regional planning. Brazil is the most economically and geographically representative country in South America and accordingly the paper adopts the concepts set out in the Brazilian National Tax Code instituted in 1966. Other aspects examined are the repeated tax reforms that have been carried out in Brazil since the 1940s and the relevant elements of the current Brazilian Federal Constitution promulgated in 1988. The forms of taxation examined are: general taxes, linked taxes and improvement contributions.

INTRODUCTION

Developing countries like Brazil experience an ever-increasing demand for infrastructure to meet the needs of industry and boost economic growth. In the view of Aragão (2008), transport infrastructure, in this case taken to mean physical infrastructure and services, is intimately bound up with economic growth and development and essential to both aspects.

The problem is to find a way to construct a system of sustainable and affordable financing for transport projects (Pinto Jr., 2002) and ensure the provision of the necessary structures.

One of the commonest ways of addressing the problem of creating a financial structure and establishing a sustainable cash flow for project funding is levying taxes (Giambiagi and Além, 2000; Morais, 2007; Musgrave and Musgrave, 1980; Riani, 1990). That form of financing is manifestly unfair however, insofar as not all the taxpayers that contribute will use or benefit from the transport infrastructure eventually constructed. Against that background this paper sets out some reflections in a tax theory perspective, about tax mechanisms that could ensure a sustainable cash flow for financing transport infrastructure projects by focusing on the capture of financial surpluses that are eventually generated by the projects themselves. They would offer an alternative to a generalized taxation of all taxpayers and concentrate instead on levying taxes from those that are the final beneficiaries of the transport projects in question.

Another product of this paper is an analysis of which kind of transport projects could be the object of this new approach and an outline of how it could be applied specifically in Brazil, in the light of the Brazilian National Tax Code (CTN).

The paper has been divided into 6 sections including this introduction. Section 2 sets out the concept of financial surplus and the impact that a new transport project has on it. In section 3 there is brief review of the theory of public financing and the instruments employed to capture resources. Section 4 contains a review of Brazilian and international practices in the field of taxation and its application in the financing of transport projects. Based on the reflections presented in the preceding sections, section 5 presents a theoretical discussion of taxation models suitable for capturing financial surpluses generated by transport projects for the purposes of financing them in the Brazilian context. Lastly, Section 6 sets out the final remarks and delineates the challenges for developing the idea being put forward in the paper.

CONCEPT OF FINANCIAL SURPLUS AND ADDITIONAL SURPLUS GENERATED BY A TRANSPORT PROJECT

Pindyck and Rubinfeld (2006) describe financial surplus as the difference between the negotiable value of a given quantity of a product supplied and/or consumed and the estimated value of that same quantity. The surplus is divided into two portions, the surplus of the consumer and the surplus of the producer (Pindyck and Rubinfeld, 2006; Vasconcelos and Oliveira, 2000; Varian, 2006).

The financial surplus associated to the producer would be the difference between the negotiable value of a given quantity of the product (market value) and the minimum sale value of the same quantity considering the volume of the supply or offer (Mishan, 1968; Helmberger and Rosine, 1980). The first author to define the surplus of the consumer was Marshall (1893) followed by Mayer (1926). In the version proposed by Varian (2006) the

consumer surplus would be the difference between the negotiable value of the product (price) and the maximum value that the consumer would be prepared to pay for it, the payoff value.
Having established that, it should be possible to find a way to estimate the surplus generated in a producer- consumer relationship, taking into account the supply and demand functions that regulate it, the market price being practiced and the total volume of the supply (Vasconcelos and Oliveira, 2000).

Aldigueri and Rocha (2008) offer a more detailed explanation of the concept of surplus and present it in the form of graphs as a function of supply and demand curves and the market price and later they analyse how a transport project can generate an additional surplus.

Litman (2002) lists the possible impacts that a transport infrastructure project may generate as follows: (i) improvement of transport system accessibility and general mobility; (ii) increase in overall economic productivity; (iii) generating income (in a macro-economic analysis); (iv) increases in the safety and reliability of transport activities; and (v) reduction in transport costs and a consequent reduction in production costs. Lima Neto (2006) and Pamphile et al. (2008) discuss the additional contributions that a transport project makes by raising real estate values and creating new land use opportunities (economic activities) that were formerly unfeasible or unattractive to the private sector.

Considering the aforementioned benefits accruing from a transport project and that transport is a fundamental constituent element of any production chain (Taaffe *et al.,* 1996; Cervero, 1998; Ballou, 2001; Orrico, 2005; Vasconcelos, 2007; Aragão, 2008). Aldigueri and Rocha, (2008) have shown, albeit not definitively, how a transport project can eventually generate additional surpluses for the economy. Those authors show that transport projects can lead to an increased demand for certain products by providing easier access and enhancing consumer mobility and as a consequence, increase the aggregate surplus associated to the consumers. The same authors also refer to transport projects that lower transportation costs not only of products but also of consumer mobility, which can lead to an increase of the supply side offer thereby reducing prices in the market and resulting in an overall enhancement of the aggregate surplus associated to the producers. They also show that increases in the aggregate surpluses associated to consumers and producers can be simultaneous.

However it must also be pointed out that transport projects can also produce diseconomy (Andrade, 1994; Taaffe *et al.,* 1996), albeit on a smaller scale than the benefits they generate. Aldigueri and Rocha (2008) did not address that aspect in their work and it is not the object of the present paper.

PUBLIC FINANCE

Musgrave and Shoup (1970) define the meaning traditionally associated to the term Public Finance as a set of economic policy problems that surround the use of tax measures and

government expenditure. Recent studies reveal that the definition is still accepted (Castro, 1996; Giambiagi and Além, 2000).

In turn Musgrave and Musgrave (1980) highlight the role of Public Finance in seeking ways to enable the Government sector to improve the efficacy of fiscal policy formulation and application. The authors state that fiscal policies or functions that the government sector can use to achieve that efficaciousness address three distinct areas: distributing, stabilizing and allocating. Distributing policy is associated to adjusting the distribution of revenue in such a way that society considers it to be fair. The aim of any stabilizing policy is to apply fiscal policies in such a way as to ensure high employment rates, stable prices and an appropriate economic growth rate. In the case of allocating policies the concern is to ensure the provision of public goods and services.

Against that background and bearing in mind that both distributing policies and stabilizing policies involve the application of public funds, Musgrave and Musgrave (1980) identify several mechanisms that foster and enable better budget administration on the part of Public Authorities. Such mechanisms can be either fiscal instruments or monetary instruments.

According to those authors, the fiscal instruments of a distributing policy favour a more direct distribution of income. They consist of:

- transferral of revenue from progressive income tax;
- use of revenue from levying progressive income tax to finance public services; and
- the sets of taxes and subsidies.

In regard to stabilizing policies the authors describe both fiscal and monetary instruments. The fiscal instruments identified are: tax aliquots and changes in government expenditure. As examples of a stabilizing policy instrument, they point to the obligatory minimum reserves imposed on Banks, and tax discount mechanisms. Although fiscal and monetary measures are considered complementary, their impacts are quite distinct. That means that using them together in suitable combinations can achieve a much wider range of objectives than would be possible if they were used alone.

Musgrave and Musgrave (1980) underscore the fact that taxation is the most traditional manner of financing public investments and dates back to ancient times. They remind us that the State also obtains resources by issuing currency (seignorage), issuing bonds, taking loans and transfers and that any kind of value collected and aggregated to the Government coffers is classified as revenue in accounting science. However the present study focuses on using such instruments, especially taxation, to capture part of the financial surplus that government investments in transport projects generate for the private sector. The concepts adopted for taxation and its economic function will now be presented and the different forms of taxation currently practiced in Brazil.

Taxation

Ever since ancient times, the State has needed to institute a regular and permanent source of financial resources to meet the demands of the evolution of public expenditure, part of the reasons for the State's very existence. Accordingly the State has traditionally used its powers of coercion to garner part of the riches of private individuals or entities and so taxation has become the major source of financing for all activities undertaken by the State.

Over the course of time there have been various movements protesting against the levying of taxes on the grounds that they were levied without the consent of the population and merely based on the coercive power of the State (Morais, 2007). That has gradually led to the establishment of the principle that tax revenues should be subject to the prior approval of representatives of the populace.

Nowadays, taxation is the main way that Governments obtain the resources to maintain their structures and address the needs of society. Tax systems vary according to the specificities of each country. Even within a single country there may be differences in the systems according to the sphere of government, in Brazil's case, national (federal), state and municipal spheres of government. Some of the state and municipal taxes have different aliquots and each unit of the Federative Union (States and Federal District) levies taxes for the purpose of investing in projects like transport infrastructure works.

Morais (2007) points out that any taxation system needs to be as fair as possible and suggest two fundamental aspects of the question: the principle of benefits enjoyed, and the principle of the capacity to afford the payments. The principle of expected benefits establishes that each individual should contribute according to the total benefits that he or she receives from the Government sector. The second principle establishes everyone should contribute according their capacity to afford the contribution, that is, individuals with the same capacity should contribute the same amounts and those with different capacities should contribute different amounts according to a progressive taxation system whereby the aliquots are graded and determined according to the economic capacity of the contributor (taxpayer).

In Brazil the concepts related to taxation and taxes are set out in Article 3 of the Brazilian National Tax Code, which was instituted in 1966. It defines tax as the mandatory contribution of a pecuniary amount, in currency or other form of value that may be expressed in currency values, that is not a sanction imposed for the practice of any illicit act, and that is levied by a specifically designated administrative process (Brazil, 1966). The Brazilian National Tax Code also sets out provisions regulating the various types of tax levied in Brazil and they will be described in the sections below.

In Brazilian Law, the varieties of tax levied are: general taxes not linked to specific state-provided benefits; taxes linked to state-provided benefits; improvement contributions; compulsory loans; and social contributions. Harada (2009) does not consider the last two as constituting taxes *per se* and uses a tri-partite classification of taxes. This paper adopts the

current trend whereby taxes fall into three categories only: general taxes, benefit-linked taxes and improvement contributions.

General Taxes

In this category, the tax levied is entirely independent of the existence of any specific state action affecting or benefiting the tax contributor (Brazil, 1966). Among all the categories of taxes levied, it is the most typical form of capturing wealth for the political *corpus* of the state but at the same time it is a legal instrument that makes it possible to regulate the re-distribution of those riches (Mujalli, 1994 *apud* Morais, 2007).

In Brazil many taxes are designed to accrue resources to finance the transport sector (like the tax on transport and communications services). However it can be seen that volume of taxes collected can no longer meet the growth in demand in those sectors. Another point is that the taxes that are levied for that purpose are not always invested in the sector they were supposedly destined for, revealing a serious lack of administrative processes to ensure the proper application of the captured resources. That aspect cannot be ignored because Brazil presently has one of the largest fiscal burdens in the world especially in regard to taxes as such.

Taxes linked to specific benefits

This kind of tax comes into existence because of a specific state action that is undertaken in favour of the taxpayers which may include the exercise of Authority, or the effective or potential provision of a specific public service. Accordingly, the basis for the calculation of such taxes is necessarily different from that of any other general tax. Levying this kind of benefit-linked tax presupposes the existence of a counterpart offered by the State, that is, it is linked to an activity unfolded by the state (Harada, 1999 *apud* Morais, 2007). This type of tax can be instituted by the Federal Union, and by the state and municipal spheres of government.

Improvement Contribution

The Brazilian National Tax Code also makes provision for an important type of taxation instrument that is rarely used, the Improvement Contribution. It consists of a charge made for benefits stemming directly from the execution of public works in a given locality. It can be legitimately levied whenever the execution of public works results leads to the enhancement of property and real estate values (see Morais, 2007).

The nature of the improvement contribution is that in effect, it brings back to government coffers part of the increased value accruing to urban properties as a result of public works installing infrastructure. The application of this tax is regulated by the National Tax Code which establishes in Article 5 that for it to be levied there must be official documentation published containing; (i) a descriptive memorial of the project in question; (ii) the budget

corresponding to the costs of the project; (iii) a definition of what proportion of the total costs is to be financed by levying an improvement contribution; (iv) a clear delineation of the zone considered to be benefited; and (v) a definition of the factor determining the extent of benefit accruing to each differentiated area within the zone (Brazil, 1966).

TRANSPORT FINANCING BASED ON TAXATION

International practice

Pessoa (1993) reported that, taking into account the questions of specific economic and financial objectives and political viability, international experiences in financing road transport shows a tendency to depend on four major sources of funding: general (non-linked) tax revenues, linked tax revenues, toll collecting and granting concessions. The author states that general tax revenues may stem from taxes like income tax, tariffs on imported goods, taxes on industrialised products or from charges made to road users (in the form of taxes on tires, fuel and lubricants) or licensing taxes for vehicles and drivers.

Financial resources accruing from revenue governed by specific laws or constitutional provisions can only be applied to the specified items or categories. They may originate from specific or general taxes and be destined for specific applications or to be applied in a broadly specified category as for example the investment of revenue from taxes on fuels in road networks.

Tolls are charged in such a way that the revenue they generate is sufficient to repay the investment outlay on constructing the road and the costs involved in financing the construction. The main advantage is that the road is actually paid for by road users. On the other hand it could be considered as yet another tax being levied on users of certain roads who are already contributors of general taxes. Another disadvantage is the increased cost of the construction project due to the need to build toll posts and additional lanes associated to them.

Financing that is based on concession granting is a special case of financing based on tolls with the difference being that it is the concessionaire who eventually administrates the road In the former case, the government itself administers the road while in the case of the concession system the administrating body may be entirely private or a mixed private-government entity.

During most of the last century, European countries that now make up the European Union relied heavily on revenue from taxes levied on transport infrastructure users to finance new transport projects. Lacerda (2005) however, observes that the mode of raising finance for new infrastructure projects in the European Union has been gradually changing because the European Commission is in the process of implanting a new system using marginal social cost pricing methodology to charge users for making use of transport infrastructure in the countries that make up the region.

Lacerda (2005) sees pricing based on the marginal social cost of roads as a methodology that seeks to attribute to road users all the costs that they cause and that otherwise have to be borne by society as a whole, including not only wear and tear on road surfaces produced by the vehicles, but also the environmental costs and costs associated to road accidents. The big problem facing the development of that methodology is how to quantify marginal social costs and the European Commission is currently engaged in examining alternatives for overcoming that obstacle. It is well known that measuring marginal social costs is no easy calculation but if it can be achieved it could be used in studies to find new financing mechanisms for transport projects and that would include road pricing.

Another country that must be mentioned in regard to financing transport is the United States. Levinson (2002) describes how revenue is used to finance road infrastructure, particularly revenue from general taxes. The author shows how most of the roads and highways are still financed by taxes levied on fuels and on the income of residents in the respective areas especially in the western states. The author considers that practice unfair to taxpayers that make no use of the respective structures but he believes that the system is maintained in that country due to political interests that are in play. The author defends the use of toll systems or other financing systems provided that the onus only falls on those that actually use the infrastructure.

Still according to Levinson (2002), raising funds to finance road projects in the United States is partially achieved by using revenue from taxes on car hire, and hotels and entertainment establishments in areas popular with tourists. In the case of small cities where tourism is an important activity however, the amounts levied are insufficient to meet the social demand for infrastructure and so there is a need to seek out new alternatives for financing public works involving roads and highways. The author goes on to suggest ways of selecting new means of financing such projects.

He suggests that the choice of a new financing mechanism for transport projects must take into account technological, economic, and geographic factors as well as critical policies associated to the choice of government jurisdiction and revenue mechanisms. One possible element of economic theory that could be useful in making the choice is the theory of games that makes it feasible to analyse the political and economic implications of a given financing alternative and also the organizational structures for the road network.

Brazilian Practice

In the second half of the last century, tax revenue dedicated by legal provisions in force to financing transport was responsible for the development of the sector but from the 70s on, those resources were gradually diverted for other purposes. In present-day Brazil however there are still several alternative ways of financing transport projects such as concessions, and Public-Private partnership arrangements but the main source continues to be revenue from taxes and they are defined annually by the Federal Government in the General Budget of the Union.

Lacerda (2005) notes that at one time in the past there was a tax raised in Brazil on fuels and lubricants for the specific purpose of investing in the field of transport. It was known as the *Imposto Único sobre Combustíveis e Lubrificantes Líquidos e Gasosos* – IUCLLG (Liquid and Gaseous Fuels and Lubricants Tax). However in 1982 the mandatory link between the tax and the transport sector was broken and in the Brazilian Constitution of 1982 all such specific linking of tributes was formally prohibited.

Aragão (2006) notes that for some time now a discussion has been going concerning the possibility of re-introducing a permanent source of investment finance for the sector by creating a tax on fuels and making use of a device known as the *Contribuição de Intervenção no Domínio Econômico* - CIDE, (Economic Domain Intervention Contribution), legally instituted by Law nº 10.336/2001, which is levied on the importation and commercialisation of petroleum and natural gas and their derivatives and fuel alcohol (ethanol). Under the aegis of that law the investments would be channelled into:

- subsidising the prices or the transportation cost of fuel alcohol, natural gas and its derivatives and petroleum derivatives;
- financing environmental projects related to the petroleum and natural gas industries;
- financing transport infrastructure projects.

Aragão (2006) also points out that Law nº 10.636/2002 in turn regulated the detailed application of the resources referred to above especially in regard to their application in the items: environmental projects and transport infrastructure. The main purpose of these last two applications would be to:

- reduce the consumption of automobile fuels;
- meet the demand for more economical transport of people and goods;
- ensure the comfort and safety of users;
- reduce the transit time of public collective transport users;
- improve the quality of life of the population;
- reduce the diseconomies associated to urban centres;
- reduce the participation of freight and port costs and other transport terminal costs in the composition of the final prices of products destined for domestic consumption and for exportation.

Another important provision of the Brazilian Tax System is a fiscal instrument established by the Brazilian National Tax Code, known as the Improvement Contribution. It consists of a

direct tax levied on taxpayers in given locality in reference to benefits generated as a result of public works carried out in the same locality.

Various Brazilian municipal authorities have been making use of this kind of tax to finance urban infrastructure works like paving, drainage, basic sanitation works and street lighting. One example is the municipality of Guarujá in the state of São Paulo. Because of the acute scarcity of financial resources the city administration re-structured the Municipal Tax Code so that the Improvement Contribution could be legally levied and collected (Caldas and Silva, 2000).

According to Caldas and Silva, 2000, the application of resources from that source of revenue follows the correct procedure set out in the Brazilian National Tax Code whereby the tax may be charged directly by the constructor or be made by issuing bank payment slips to those that have not adhered to the financing plan offered by the property developer. The entire tendering and bidding process and the accompaniment of the execution of the works needs to be as transparent as possible and enjoy the participation of the financers, that is, the community itself, throughout the entire process.

In spite of the variety of devices embedded in the Brazilian Legislation, very few attempts are made to implement them in urban planning or as an instrument to capture financial surpluses generated for the private sector by public investments in transport projects.

TAXING FINANCIAL SURPLUS TO FINANCE TRANSPORT PROJECTS

In this section an analysis will be made of the possibility of using tax mechanisms to capture part of the surplus generated for the private sector by government investments in transport. Some of the aspects addressed here are:

- the limitations inherent to using tax mechanisms;
- cases where such capture is feasible;
- obstacles to the process and suggestions for adapting the legal framework in place to facilitate the use of this instrument.

According to the Brazilian National Tax Code there can be no taxes contemplated by the national tax system other than those foreseen in the provisions of the Code with their respective applications and limitations and the limitations. However Article 76 of the Code refers to extraordinary taxes applicable in cases war with an external power or the threat of such a war whereby the Federal Government is empowered to institute, albeit on a temporary basis, extraordinary taxes which may or may not be found among those stipulated in the law and which must be suppressed within a period of five years counted from the time

peace was declared (Brasil, 1966). An extraordinary tax could be created to capture part of the financial surplus generated for the private sector.

It might be possible to justify the creation of an extraordinary tax in view off the critical situation in the transport sector where the investments being made by the government are patently insufficient to meet the constant increase in society's demands.

There is however another way that the government could capture part of the surplus generated for the private sector and that involves reformulating an existing tax and establishing a law governing the destination of financial resources. It should be noted that this has already been done in Brazil with the *Contribuição de Intervenção no Domínio Econômico* - CIDE, (Economic Domain Intervention Contribution), and on that occasion a determined tax was reformulated.

The reformulation of the CIDE took place with a series of subsidies that were embedded in the prices of petroleum derivatives and that were extinguished by the legislation that was introduced to endow the Brazilian petroleum sector with greater flexibility. It did not constitute any new fiscal burden for Brazilian society. The *Parcela de Preço Específico* (PPE), Price Parcel Specific, which was extinguished was totally dedicated to subsidies and made no contribution whatever to the national treasury.

On that it occasion it was realized that capturing part of the financial surplus generated for the private sector by public investments in transport projects using tax mechanisms could be done by a reformulation whereby the amount that needed to be raised would be added or integrated into an existing tax. However it is necessary to ensure that the amount in question is effectively passed over and dedicated to financing the transport sector. The reformulation would have to be done using and respecting the fundamental concepts of taxation.

Another important point is not to let what happened to the *Contribuição Provisória sobre Movimentação Financeira* – CPMF (Contribution levied on Monetary Transfers and Operations) happen to whatever tax comes to be created or reformulated in this context. The CPMF was created as an extraordinary tax and according to Carvalho (2002) the idea was to pass over 30% of whatever was levied to the National Health Foundation –FUNASA to finance the health system. However, as the author points out, the financial resources that were levied were never invested in health.

Another kind of tax that is part of the Brazilian tax system is the general tax. General taxes are instituted by the government and are indispensable to meet the tax levying needs of the state and to finance public services, recover investments made in infrastructure, undertake social actions and implement urban policies. The definition and application of those tax instruments is explicitly regulated in the provisions of the Brazilian National Tax Code which authorises the Federal Union, the State Governments and the Municipal Authorities to institute them. Accordingly there now follows an analysis of the real possibilities for using

taxes to capture part of the surplus generated for the private sector by government investments in transport.

According to the terms of Article 77 of the Tax Code, the service, benefit or fact that gives rise to (and justifies) the levying of the benefit-linked taxes is the regular exercise of Government authority or the effective or potential utilization of a specific and divisible public service provided to the taxpayer or put at his or her disposal. Article 77 adds a further provision that the benefit-linked tax must not be calculated on the same basis as basis any other general tax and neither can it be calculated on the basis of a company's capital (Brasil, 1966).

Article 79 of the Code describes the attributes of the public services referred to in Article 77 (Brazil, 1996). They must be:

- effectively or potentially used by the taxpayer;
- specific insofar as they are services or interventions that can be clearly delineated as units or as addressing specific public needs;
- divisible, that is, susceptible to being used separately by individual users.

An analysis of the Code articles that mention the creation of taxes shows that there is no specific restriction impeding the creation of a tax on the part of the Public Authorities to capture part of the financial surplus generated for the private sector by government investments in transport projects. As to the question of how the tax should be elaborated, all that is needed is to refer to the orientation offered by the CTN in regard to the fundamental elements of a tax.

The Improvement Contribution is a tax that is designed to charge the beneficiaries of urban works and operations financed by the public authorities for the benefits received. The idea behind the tax is to recover for the treasury, the amount represented by the enhanced value of urban properties and real estate resulting from the execution of public urban infrastructure works.

There are however, some obstacles associated to capturing part of the surplus for the private sector stemming from public investments in transport projects and the main one is the limited applicability of the this form of tax because it is only relevant in cases of enhancing the value of urban real estate. Accordingly what is proposed is that not only particular tax but the National Tax Code should be reformed, to enable the application of Improvement Contribution taxes on a much wider basis.

Accordingly, Table 1 sets out an analysis of the use that can be made of tax mechanisms in accordance with Brazilian National Tax Code to capture part of the surplus generated for the private sector by government investments in transport.

Table 1: Synthesis of an Analysis of Brazilian taxes (General taxes, benefit –linked taxes and improvement contribution)

Tax	Can it be used?	Justification
General tax	Yes, depending on the situation	The Brazilian Tax Code makes it difficult to create new taxes but it does allow for the creation of extraordinary taxes which in some situations are not applicable to the present study because of their provisional nature
Benefit-linked tax	Yes	Because the Public Authority needs to garner financial resources to finance the public services it provides, the Tax Code allows for the creation of new taxes provided there is no connection between the new tax and any existing general taxes. It must be remembered that these taxes are linked to the effective or potential use of specific, divisible, public services by the taxpayer
Improvement Contribution	Yes, in urban zones but not in the rural zones	According to the terms of the Tax Code - CTN (1966) the Improvement Contribution should be used to enhance the value of real estate and properties in urban areas and accordingly it is capable of addressing the problem of capturing financial surpluses of the private sector in urban areas

So even though it is true that the classic way of capturing financial surpluses is by taxation, it has been shown that not every kind of tax is suitable or can be used to that end. One important point in regard to the capture of financial surpluses in the private sector is that the mechanisms must be applied *ex-post,* that is, after the surplus has effectively been generated.

CONCLUSIONS

Of the three kinds of tributes studied only one can be used unrestrictedly to capture part of the surplus generated for the private sector by government investments in transport projects. In the case of benefit-linked taxes and Improvement Contributions, the current Brazilian legislation does not allow for the use of such mechanisms and if they are to be used to capture part of the surplus generated then it will be necessary to adapt the CTN in alignment with the suggestions set out in Table 1.

However, in spite of the apparent possibility of using taxes to capture part of the surplus generated for the private sector other analyses need to be made embracing a social assessment of the projects, that is, it is important to know what their effects on society are, especially in eventual cases where diseconomies or other negative externalities come to be used as mechanisms for capturing resources. It is also recommended that an assessment should be made of the impact that the capture of financial surpluses for the private sector generated by government investment in transport projects may have on the public coffers and also a methodology needs to be developed to calculate the value of the financial surplus generated for the private sector by government investments in transport; topics that have not been addressed in this paper.

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