

MAINTAINING TAXES AT THE CENTRE DURING DECENTRALIZATION  
PROCESSES: INTERACTIONS WITH NATIONAL REFORMS

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## Maintaining taxes at the centre during decentralization processes: interactions with national reforms

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## **Introduction**

Centralization of taxes is a clear feature of the long term evolution of federal and decentralized systems, if this is taken to mean simply that present day federal governments have taxing powers that are much larger than those reserved to them in the original constitution. Also, transfers from federal to local governments were totally absent in the initial stages of all federations and even in unitary states, meaning that federal/central governments have now more tax resources than they need for their direct expenditure, while subnational governments have now lesser tax resources compared to their expenditures (the so-called vertical fiscal imbalance).

At the same time, we can observe extensive fluctuations over time of tax revenue and of the assignment of taxes between national and subnational governments. Centralization (decentralization) of taxes can take place through distinct instruments and mechanisms. Namely, variations of the legal framework referring to tax assignments and tax administration and interdependent decisions by levels of government, such as changes in tax rates on shared taxes.

In general, one would expect that during decentralization processes the importance of local taxes should increase. This is, however, not always the case. Decentralization of policies and expenditure responsibilities is frequently non-accompanied by decentralization of tax assignments. This may happen because national tax reforms, which are concomitant with decentralization processes, can preempt the space for local taxes; or because reliance by subnational governments on transfers from the central government looks more attractive to local politicians. Italy provides examples of both cases, but there are other interesting examples, such as Canada and Latin American countries.

The paper analyzes these issues on the basis of a negotiation model between a central and a subnational government. It intends to contribute to the literature by introducing consideration of the expenditure side of the budget. More precisely, the decision about (de)centralization of taxes is also related to the decisions and prospects about the use of the revenue of these taxes.

The paper is divided in four sections plus the conclusions. The first section starts with the meaning of tax centralization and provides a review of the literature. The second presents a model of negotiation of tax assignment. Evidence is provided in the third section and it is followed by the conclusions.

### **1. Centralization of taxes in the literature**

Despite the fact that one of the main tenets of the literature on fiscal literature prescribes that subnational governments should be financed as much as possible through local taxes and other sources of own revenue, the literature on the actual trends of tax (de)centralization and on their interpretation is not very long. Also the meaning of tax centralization and how to measure it are not always well defined.

The literature on fiscal federalism makes a distinction between own local taxes (and fees) and other taxes. According to it own taxes are those for which local governments have a discretionary power in determining the burden they impose on their citizens. This discretionary

power can be exerted with three different instruments (and their combination): a) tax administration,; b) setting of tax rates and, c) determination of the tax bases. Hence tax (de) centralization should refer to three instruments. The reference to them should also inform the measurement issue. One cannot infer simply from changes in the distribution of tax revenue between levels of government that tax (de) centralization has changed. For example, if transfers to local governments are replaced with shared tax revenue, no real decentralization of taxes has taken place, if local governments have no discretionary power for determining the size of share revenue.

Centralization of taxes being, neither a necessity, nor a continuous trend, we can observe extensive fluctuations over time in the assignment of tax bases between the national and the subnational governments. Even larger fluctuations can be observed in the apportionment of tax collections between the central and the local governments. This because, among other factors, tax collections do not depend only on assignment, but also on interdependent decisions about use of tax powers by distinct levels of government. For example, in the last seventy years the apportionment of the collection of the personal income tax has widely varied in Canada, following the agreements between the federal government and the Provinces about the use of their tax bases and of the decision of the federal government to cede to the Provinces a number of tax points for the personal income tax [see Chernick and Tennant (2010) and Winer (2000)].

There are various branches in the literature trying to explain, or to make policy prescriptions about tax (de)centralization. The largest body of the literature is the normative, or prescriptive theory of fiscal federalism [Oates, (1972), Inman and Rubinstein (1997), and Ambrosanio and Bordignon (2006) for an excellent updating]. While initially (in the classical federal constitutions) the main criterion for assignment was avoidance of tax exportation, more precisely the minimization of tax impediments to the smooth working of the domestic market (thus tariff duties were assigned to the centre, and sales taxes as well in most cases, such as in Canada), the literature has later focused on the mobility of the tax bases, more specifically on the elasticity of the tax bases with respect to the changes of the tax rates.

Most of the normative literature stresses the efficiency advantages of centralization, particularly for the collection of taxes, but for a small number of them (such as the property tax). The prescriptions of the normative literature bear, however, a pale resemblance with the real world.

Turning to positive theory, Breton (1996) presents a general explanation of the assignment of powers between levels of government. His analysis does not refer specifically to taxes, but rather to all government functions. Breton's argument is that assignment derives from competition among layers of government. In the case of taxation, economies of scale in administration and in collection would make the federal government a most likely winner, because it can better exploit these economies. At the same time, other factors, such as difficulty of coordination, may constrain the bargaining power of the central government. However, as for the other functions, Breton points out that there is no prevailing trend towards centralization, or back from it. This conclusion is also maintained by the all the positive literature. This literature is mostly the work of political scientists [Riker (1964); Filipov, Ordeshook and Shvetsova, (2005); and more recently Diaz-Cayeros (2006)] and addresses specific cases and derives conclusions that in some cases do not go much beyond them. The authors stress the importance of the structure of political parties and of their capacity to make

commitments for striking of federal bargains concerning the allocation of taxing powers. In addition political parties, more precisely the national structure of them, are essential for ensuring the benefits of tax decentralization (in addition to general decentralization). This is because with national parties, local officials have career incentives to take into account the overspill of their decisions on other jurisdictions and not only the benefits to their local constituency. This was the main argument developed by Riker (1964) for assessing the benefits of decentralization. This view is particular popular with Latin American scientists. O'Neil contributions (2003 and 2005) to the analysis of decentralization are the main reference point of this literature and they establish a link this process and the the electoral incentives of political parties.

The political parties approach to centralization/decentralization has been also developed by Enikolopv and Zhuravskaya (2007). Filippov, Ordeshook and Shvetsova (2005) are amongst the most widely quoted authors on the issue. However, their focus is on the design of stable federalism systems and on overall (de)centralizing trends in federations and not on (de)centralization of taxation *per se*. Clearly, proper tax arrangements contribute to stability and derive from proper institutions ensuring agreements among levels of governments. These include: 1) fundamental constitutional principles designing the basic rules, such as the right to secession (their Level 1 constraints); 2) constitutional principles regarding the amendment of the constitution, the structure of the separation of powers, and the principles guiding the legislation process, 3) political institutions that impact on the implementation of the rules and on the agreements reached through bargaining, such as electoral systems, the structure of party systems and of political parties.

The centralizing role of national parties is questioned by Chibber and Kollman (2004), who maintain that while one can surely argue that political parties are actually the instruments of centralization and decentralization “evident trends toward centralization and decentralization are actually the consequences of larger forces that work mostly independently of the party system” (Chapter 1).

There is also a nascent political economy approach to the centralization of taxes. Or better it is possible, as Rodden shows (2004), to develop some contributions to the political economy of decentralization in view of understanding the centralization of taxes. Rodden draws specifically on Bolton and Roland (1997) and sketches very briefly a model where centralization of taxes is promoted by a coalition of relatively underdeveloped jurisdictions that also keeps high the cost of subsequent modifications.

Levi (1988) provides a careful account of the process by which Australian States relinquished their substantial taxing powers and were left almost completely dependent on transfers from the federal government. There is no formal model of this process, but Levi stresses three factors. They are: a) the superior tax administration capacity of the federal government; b) the capacity of the latter to keep commitments with the States due to strong national structure of political parties; and, c) the increasing unpopularity of widely diverging State tax systems. As in other federal systems, such as Canada, wars and demand for social protection policies facilitated the task of the federal government that Levi views essentially as a revenue maximizer (page 150).

Winer (2000) compares the Australian and the Canadian cases. In Australia the States have given up most of their taxing powers accepting a centralization of intergovernmental relations

that goes much further the constitutional prescriptions. In Canada the evolution of fiscal assignment between the federal government and the Provinces is far from linear. Epochs of intense centralization have been succeeded by epochs of equally intense decentralization of taxes. In both cases, also, the constitutional discipline bears no resemblance with actual assignments in the various phases (see, especially, indirect taxation)

Diaz-Cayero's work (2006) is focused primarily on Mexico and Latin America. He provides a stylized model of the bargaining process between the federal and the state governments. Mexico is, possibly, the most tax centralized federation (more even than Venezuela that is only nominally a federation). Centralization in Mexico is explained by Diaz-Cayero by the one party (PRI) regime that prevailed for half a century and that allowed the federal government to make a credible commitment *vis à vis* the regional politicians concerning the payment of the transfers that replaced the taxes administered by the States. In the experience of the rest of federations of the region (Argentina, Brazil and Venezuela) it is important to include the alternation in power between democratic and military governments, as an element that helps understanding changes in the tax authority between central and subnational governments.

Blankart (2000) views – in line with Brennan and Buchanan (1980) - tax centralization as the result of cartelization efforts between layers of government. By reaching an agreement on the sharing the same tax base of the personal income tax, for example, and on leaving the definition of the tax base and the administration of the tax to the federal government, the federal and subnational government reduce the intensity of tax competition and can increase collections. Tax centralization is thus the obvious goal of greedy politicians, but it can be attenuated if not eliminated by proper institutions, such as constitutional assignment of taxing powers or instruments of direct democracy, such as referenda.

## **2. A model for explaining tax (de)centralization**

### *The choice strategy*

Building on the bargaining approach by Diaz-Cayero by and introducing also expenditures into the picture, let's consider the negotiation over tax (de)centralization between a federal government and a Region, or a number of Regions all of equal size and characteristics (which will amount to the same), when a Region considers taking on a policy responsibility, namely education, that is presently assigned to the central government. The introduction of the choice whether to take on a new responsibility allows introducing the expenditure in the analysis. It is also a way to focus on typical decentralization processes involving both sides of the budget.<sup>1</sup>

We later relax the equality of Regions by assuming that they differ by income conditions.

To simplify the model, let's assume that there is only one earmarked tax for funding this function, the education tax. The tax base and the tax rates are determined in the constitution. Variations in the volume of tax collections depend only on the efficiency of administration. Skills and effort capacity can vary between levels of government and scale economies can play

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<sup>1</sup> Diaz-Cayero and other authors introduce a third, more radical, alternative. Regions can choose between tax decentralization, tax centralization and secession. Their models stay, however, on the revenue side of the budget.

a crucial role<sup>2</sup>. Thus assignment of tax administration variable can lead to different amounts of collections. The assignment of education and the assignment of the administration of the tax to either level of government are the objects of the negotiation. We assume that all governments are revenue maximizers - more specifically, they maximize the difference between the revenue they receive and the expenditure needed with reference to the minimum level of services they consider they are forced to provide for keeping themselves in power, or because of legal/constitutional obligations.<sup>3</sup>

Let's start with the choice of the Region. The choice is split into a two-stage process. Namely, the Region has to decide if it wants to take on the new responsibility. Secondly, the Region has to decide the system with which the new responsibility will be funded. There is no obvious hierarchical relation between the two stages of the decision process, but being a revenue maximizer the Region will first decide about the revenue system: own taxes or transfers. Then, it will decide if it is worth proceeding with the new policy assignment. The choice process is illustrated in figure 1.

The first alternative is between:

1. Centralization of administration of the tax with expected collections of  $C$ , accompanied by expected transfers to subnational governments of  $T$ , leaving revenue equal to  $C - T$  to the federal government.
2. Administration of the tax by the Region (Regional tax autonomy), amounting to expected revenue of  $L$  for the Region.

The Region will receive  $T$  with tax centralization and  $L$  with tax decentralization. It will thus prefer tax centralization when  $T > L$ . It will prefer decentralization, at the contrary, when  $T < L$ , that is when the transfer it expects from the central government is lower than its own expected tax collections.

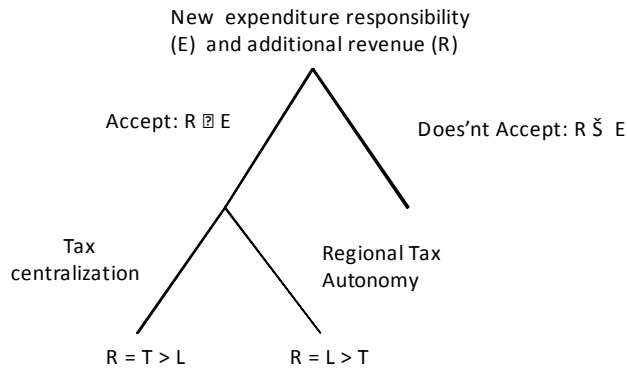
In the second step the Region has to check whether its preferred choice for revenue -  $R = \max(T, L)$  - is enough to cover the expected new expenditure,  $E$ .

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<sup>2</sup> We do not consider variations in tax rates or in the tax bases that are the essential ingredients, along with tax administration, of subnational own taxes. The main reason is that within a revenue maximization model it is impossible to distinguish between central and local governments in terms of the choices on tax rates and tax bases that maximize revenue. Their consideration would require another assumption on the decision-making process, such as a median voter model.

<sup>3</sup> The obvious reference is to a less extreme version Brennan and Buchanan (1980), that takes into account the electoral constraints on politicians that prevail in present day industrial democracies.

Figure 1. Decision tree of the Region



That is, the Region will ask for the assignment of the new function and will choose the transfer if

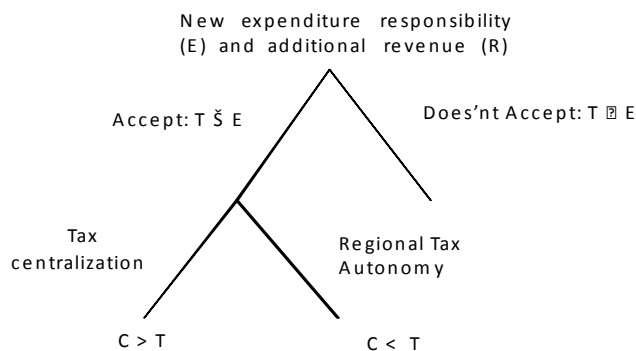
$$T > L \quad (1)$$

and

$$T \geq E \quad (2)$$

Let's turn now to the federal government. Again, it is faced with a two stage choice process. It has to decide, first, whether to accept the devolution of education to the Region and, second, the way it will be financed: tax centralization meaning that it will keep the administration of the tax or to accept it devolution to the Region. The choices are illustrated in figure 2.

Figure 2. Decision tree of the State





The federal government will prefer tax centralization if the expected transfer it has to pay to the Region is lower than the expected collections of the tax. Secondly, it will accept the devolution of the function if the grant is lower than, or at most equal to, the expenditure it is presently making for education. Otherwise, there will be no gain for it from the change.

That is the federal government will accept the whole package provided that

$$C > T \quad (3)$$

and

$$T \leq E \quad (4)$$

When we combine the four constraints we get that an agreement can be reached if

$$C > L \quad (5)$$

and

$$T = E \quad (6)$$

That is, the agreement will be reached, if tax centralization of tax brings in higher revenue than decentralization, implying better administration or economies of scale with centralization, and if the size of the transfer is equal to size of expenditure.

While it is in the realm of the possible to expect economies of scale and better administration with centralization, the bargain entails that, *rebus sic stantibus*, that is, under the existing conditions, no level of government is going to gain in terms of revenue from the bargain. This is because the Region will get exactly what is needed to fund the new expenditure and the central government will have to pay a transfer that is equal to the foregone expenditure.

There are, however, other possible reasons for the bargain and they derive from future actions by both levels of government. For example, the Region can believe that it will be able to spend with greater efficiency on education than the federal government, saving part of the grant for other purposes. The central government, on the other hand, can believe that it will be able to achieve larger efficiency gains in the administration of the tax in the future.

#### *Tax centralization with differences in income and fiscal capacity between Regions*

Clearly this is a more realistic case, but with less straight conclusions, because redistribution comes to the fore and it is quite difficult to model. With tax decentralization the revenue available to each Region is related to its income conditions. The choice between the tax and the transfer will thus depend, *prima facie*, on the existing level of central government expenditure for education (centralization does not imply *de jure*, or *de facto*, homogeneity of levels of service provision across the country). If education expenditure is the same (per capita) across all the country,  $L > T$  for the rich Regions, and  $L < T$  for the poor ones, making the former less incline to accept the grant and to ask for the devolution of the expenditure responsibility, unless they fear they will have a weaker capacity in their tax administration or big expectations on their capacity of shrinking the expenditure.

At the same time, the choice will depend on present levels of expenditure made by the central government in the function going to be devolved. If present levels are higher in the rich Regions

than in the poor ones – this situation is actually observable for a range of services in many countries- the propensity of rich Regions to choose the transfer will increase. Paradoxically, but not too much, tax centralization can be easier in more (expenditure) decentralized federations.

Propensity for tax centralization can become stronger when we look at commitment issues, to which we come now.

#### *Dependence on transfers and commitment problems*

Intended future actions - savings on expenditure and higher tax administration effort – introduce naturally into the discussion the commitment issue.

Intergovernmental long-term contracts are subject, as any other contract, to this problem. Once the Region has accepted the centralization of the education tax and the compensating transfer, it is potentially at the mercy of the central government. This government could in subsequent years renege the agreement and reduce the size of grant. One does not have to think to extreme situations, where future transfers are set to zero, to stress the importance of the commitment problem. Once the Region has given up its taxing powers, resuming them will take time – especially when they consist of tax administration –and even a modest reduction in real terms, or and worse in the money value, of the grant will do a lot of harm to its finances.

Clearly, both the literature and the observable experience provide more or less effective solutions to the commitment problem, depending on the context where they apply. There are basically three of them. The first solution is to increase the initial size of the transfer, to take care of the fact that the Region applies a discount factor to transfers in future years. In other words, the central government posts a bond. This is an elegant analytical solution in a typical two-period time frame. The federal government will pay in the first period  $T_1 = T (1 + d)$ , where  $d$  is the discount rate to assuage the fear of the Region that the transfer will be reduced in the second period. This solution becomes more problematic in a more realistic multi-year time frame.

The second solution is to act with legal provisions. The commitment problem can be eased/solved through the insertion in the constitution, or in a law with higher hierarchy than ordinary laws when this kind of law exists, of a protection clause about the size of the transfer.

The third solution refers to the structure of political parties. This is the major argument advanced in the political science literature on tax centralization. In essence, commitment is firmer when parties have a national structure at both levels of government and, especially, when the same party governs at both the federal and the subnational level. It is still firmer when the same party stays unchallenged at power for a lengthy period, as it happened in Mexico with the PRI for 70 years (Diaz-Cayero, 2006).

#### *Political interactions between levels of government as a major source of commitment*

Political/electoral interactions are in our view the main player in ensuring commitment. The argument starts with considering that in (or almost) every present day intergovernmental system the various spheres of government are never completely separated, in even in extremely decentralized systems. One implication of this missing separation is that the policies and services provided by subnational governments impact also on the popularity, and thus the probability of re-election of the central government. On the basis of this consideration we use an index of centralization/decentralization (Brosio, 2007) with meaningful properties that adds

to the literature that measures the meaning and the intensity of decentralized systems [see Treisman (2000) for a review].

Essentially, this index maintains that (de)centralization of a service, or of a policy, does not refer to the institutional assignment of it to the central government, but to the probability of re-election for the central government deriving from the level of provision of this service. For example, education can be constitutionally decentralized and thus provided by subnational governments, but it will still be to a varying extent centralized if the probability of re-election for the central government also depends from the level of provision of education.

Suppose a country with a central government,  $G$ , and another sphere of, local, government. There are only two publicly provided goods, namely, defense,  $D$ , a national good, and education,  $E$ , a local one. Both goods can be provided under different institutional arrangements.

The probability of re-election depends on the level of service provision for the publicly provided goods, that is,

$$P_g(\alpha D, \beta E) \quad (7)$$

where  $P_g$  is the probability of re-election of the central government and  $\alpha$  and  $\beta$  are the discount factors, assigned to the arguments, with  $0 \leq \alpha, \beta \leq 1$ . This probability is related to the probability that each voter will grant his/her consent to the incumbent politician. In turn, this probability is a function of the utility of each voter. [Muller (1989) provides a good summary of, and references to, the literature on voting under conditions of uncertainty]. For simplicity, we assume that voters' utility function has only two arguments, namely defense and education provision.

The degree of decentralization can be inferred – according to this approach – from the value of  $\alpha$  and  $\beta$ . When  $\alpha = \beta$  the system is completely centralized, since voters consider that the central government only is responsible for both goods. In fact, in a purely centralized system the two arguments are discounted equally by the central government. This is because, independently from constitutional and/or other legal regulations voters consider that the central government has the full and exclusive responsibility for their provision. When  $\alpha > \beta$  the system is decentralized. When  $\beta$  equals zero, the system is completely decentralized and the central government bears no responsibility whatsoever for the provision of the local good. A completely decentralized system with two levels of government assigned with the provision of one good each implies that the probability of re-election depends for each level/unit of government from the single good for which the voters hold them responsible.

The interest of this approach lies also in the fact that it accounts for different degrees of decentralization for different sectors. A country may, for example, be quite decentralized for health, but very centralized for education.

With the devolution of a function comes inevitably also the commitment on the transfers for that function if voters consider that this is also a central responsibility and hold the national government accountable for it. Coming back to our example, the Region can clearly bet on this commitment, when it accepts to be funded with a central government transfer. Furthermore, the national government dependence on regionally provided education could enhance the role of federal government as an insurer against asymmetric shocks. This role is increasingly

discussed and tested in the literature, although with no unanimous results [Hepp and Von Hagen (2000), Rodden and Wibbels, (2010)].

### 3. Evidence

#### *Italy: the tax reform of 1970*

In that year a large-scale reform of the Italian tax system took place. It was based on the creation of comprehensive personal income tax, of a new corporate income tax aligned to the model prevailing in industrial countries, and on the elimination of a number of nuisance taxes. Also the VAT was introduced to comply with European regulation and to modernize the taxation of consumption. This comprehensive national tax reform of 1970 was enacted on the eve of the regionalization of the country and it centralized all the taxes. All the existing municipal taxes (among them a simplified personal income tax and a octroi type sales tax ) were abolished, while the Regional governments were born without any taxing power and were financed (and the municipalities as well) until the 1990's entirely out of transfers from the central government (and both levels of government did not complain). Hence, a major step towards the creation of a more decentralized system of government took place alongside the most complete centralization of taxes one could conceive

The tax reform was conceived in the 1960's when the country found itself in a political mood very favorable to the government intervention in the economy. Tax centralization rested primarily on the presumption of greater central government efficiency in the administration of taxes that is difficult to test.

#### *Venezuela: early start of centralization of taxes*

Venezuela is the first, the most complete and, may be, the most interesting case of revenue centralization in Latin America.

The process was initiated by President Guzman (coming to power in 1870), who privatized the collection of custom duties in favour of the major trading houses that had subscribed most of Venezuelan public debt [see Rodriguez and Gomolin (2009), Diaz Cayeros (2006), Chapter 6]. Privatization strengthened the collection process, since the trading houses had a personal interest to collections to service directly the national debt. Guzman proceeded, then, to force each of the regional caudillos to give to the federal government control over mining and salt taxes in exchange of a higher volume of transfers. To ensure a continuous stream of revenues Guzman implemented the tax sharing mechanism – called *Situado Constitucional* - inserted in the constitution of 1964 that had not yet been actually implemented. Guzman also inserted regional governors on the Regional Development Boards that were in charge of regional infrastructure. Relationships between regional bosses and the federal Presidency remained tense for the coming decades, but by centralizing tax administration and shifting mining and salt taxes from the regional to the federal level, Guzman set up the ground, not only for subsequent centralization of taxes, but also for the federal control of oil revenues when they were later discovered. In other words Guzman set up the basis for the huge centralized structure of Venezuelan federalism.

### *Argentina: creation of the Regime of Federal Co-participation taxes in 1935*

In principle, or better *de jure*, Argentina is a quite decentralized federation. The present (1994) Constitution of Argentina states that the Provinces retain all powers not delegated to the federal government. With regard to the financing side, the National Constitution (article 75, paragraph 2) delimits the tax powers of the central government and the Provinces by establishing that indirect taxes are concurrent between both levels, except in the case of import and export duties, which are an exclusive prerogative of the federal government (article 4). In principle, direct taxes are exclusively provincial, but the federal government has the right to use them for a limited time if defense, common security and the general welfare required it. Hence in principle, Provinces have a large access to taxing powers, but they make only partial use of them preferring relying on shared revenues collected by the central government.<sup>4</sup>

The system of co-participation (revenue sharing) began in 1935, through laws 12139, 12143 and 12147, and was designed to increase the amount of resources collected by the federal government in order to face the financial difficulties caused by the fall in revenue from foreign trade during the 1930s crisis. New taxes were introduced (on sales and profits), and the internal taxes at federal government level (excise taxes) were reordered and unified, eliminating those taxes that had the same characteristics of those collected at the sub-national level.

In order to achieve the approval of these new taxes, two different mechanisms of distribution were established: on the one hand, considering the concurrent character that the National Constitution had introduced for the new taxes (sales and profits), a revenue sharing mechanism of compensatory nature was stipulated for these taxes (a primary co-participation of 82.5% for the Nation and 17.5% for the 14 existing provinces and the Municipality of the City of Buenos Aires). In the case of internal taxes, their distribution was established in response to the derogation of similar taxes collected by the Provinces. Therefore, in lieu of the taxes abolished, each Province was guaranteed the same amount collected the previous year, plus a percentage increase. The commitment problem was solved in Argentina mainly by three elements: the coexistence of authoritarian government with fragmented parliamentary power; the introduction and implementation of an automatic and daily system for disbursing the co-participation transfers; the granting of debt bailout (law 12139) to several Provinces.

Also in this case tax centralization rested primarily on the presumption of a greater central government efficiency in the administration of taxes.

### *Bolivia: transferring revenue-sharing from national taxes, natural resources and debt relief to municipalities*

The political democratization of 1982 allowed a surge of decentralization pressures, driven by the Civic Committees. In 1985, law No. 696 (Orgánica Municipal) introduced the popular election of municipal authorities

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<sup>4</sup> In fact provincial taxes (there are four main off them, namely on real estate, motor vehicles, stamp duties and gross income) plus revenue from royalties represent some 40% of total provincial revenues, the rest being supplement by the federal government through its transfer systems (see *Cetrángolo and Jiménez, 2004*).

In the 1990s, the Law of Popular Participation (LPP) and the Administrative Decentralization Law (ADL) were enacted in 1994 and 1995, respectively. These instruments encouraged the implementation of administrative and fiscal decentralization, creating 327 municipalities and promoting the transfer of central government responsibilities to municipalities of significant fiscal resources based on the number of inhabitants for local investment in education, health and road infrastructure. In 1999 the municipalities were assigned the functions of building, equipping and maintenance of infrastructure (education, health, micro irrigation and basic sanitation, culture and sports, urban roads and feeder roads) and, one year later, the local governments were strengthened financially with the distribution of resources HIPC (the resources from the Highly Indebted Poor Countries Program derive from cancellation of Bolivian national debt accorded by rich donors. In exchange of the cancellation the central government has to make available to municipalities a similar amount of resources, Inchauste, 2009).

The major responsibilities assigned to municipal governments through the process described above were not accompanied by higher local taxes, but rather expanded revenue sharing transfers and HIPC resources.

In addition, collection of revenues from the exploitation of hydrocarbons has always been centralized in Bolivia although the proceeds were transferred with a dominant share to the local governments. In 2005, a new hydrocarbons tax (IDH, which is basically a royalty) was established. Again administration has been centralized, but the proceeds are shared between levels of government. Bolivia is facing presently a tense conflict between the central government and the eastern, richer and gas producing departments, which the political parties system does not seem to be able to govern, due to the growing cleavages between the eastern provinces and those of the highlands that are inhabited by the indigeneous people, who are in a process of political awakening intended to fully recover their political and economic rights.

#### *Italy: the quasi-federalization of the system of intergovernmental relations of 2001*

The bargaining model presented above is to some extent tailored to explain the recent decentralization process of Italy. The new constitution extends to education and social protection and to a number of other areas the range of basic responsibilities assigned to regional governments. At the same time there is no mention of subnational tax instruments, neither in the constitution, nor in the recent law (law 42 of 2009) that authorizes the government to issue the decrees that will define the new revenue system of regional (and local) governments.

Law 42 pays only lip service to the regional tax autonomy, making a vague reference to the future introduction of regional and local taxes, whereas it details the new system of equalization grants. The law explicitly mandates that IRAP, which is the most productive of regional own taxes (ensuring approximately 30 % of total regional current revenue and 70% of the collections of own taxes) will be eliminated as a soon as the general conditions of the public finances will allow. The law also does not reverse the recent trend towards the shrinking of the base of the property tax, which is the main tax handle of Municipalities.

This is somewhat surprising. Despite initial vociferations in favor of tax autonomy, the richest Regions and Municipalities of the North seem to be happy to live with a system that will give them presumably very modest tax handles. There are, however, reasons for the acceptance on behalf of all levels of government. The central government can believe that there are substantial possibilities of improving the tax administration process, or to reform the taxes. The present government has announced recently – again on the eve of a likely intense devolution of policy responsibilities to Regions and Local Governments - which it will proceed from next year to a new comprehensive tax reform. The likely strategy is that through tax reform it will be able to satisfy the claims for resources coming from subnational governments and to expand at the same time its reins on the whole tax system.

On the other hand, subnational governments - including those of the rich areas that have huge own revenue potentialities - may be happy with a financing system that makes them largely dependent on central government transfers. This is because the new system will be based on a generous transfer system for a set of basic local function that accounts for 70/80 per cent of total subnational expenditure. These transfers will be based on the standard cost of provision referred to nationally defined standards of level of service delivery. There are thus basically two guarantees for subnational governments concerning their (future) revenue. First, the central government has taken the engagement to cover the whole cost of service provision that corresponds to the standards. Secondly, the central government appears to be fully committed to the payment of adequate transfers in the future. This is because the introduction of nationally defined standard means that the policy responsibilities, to which these standards refer are still, at least partially, centralized in Italy according to our previous definition of (de)centralization. That is, the introduction of standards implies that voters still consider the central government still (partially) responsible for these services. This solves the commitment problem.

Obviously, these recent events are also compatible with a political economy approach to decentralization that stresses the costs for the rich regions to reverse a long time established trend in tax centralization that is supported by a large front of less rich regions.

#### *Canada: moving up and down the personal and corporate income tax*

Our model that stresses the importance of efficiency in tax administration is supported by the Canadian experience with the personal and the corporate income tax. In 1941 the Provinces gave up their right to use the personal and the corporation income tax to help the federal government to finance the war effort. In 1947 the *tax rental agreements* were signed between the federal government and the Provinces (with the exception of Ontario and Quebec) by which latter gave up their right again to administer the two taxes getting in exchange a transfer equivalent to the lost revenue. They thus agreed to tax centralization. The tax rental agreements were replaced with the *tax collection agreements*, whereby the Provinces resumed their right to use both taxes by choosing their tax rates that would have then been applied to a federally defined tax base. Both taxes remained under federal government administration. Hence, according to the prevailing index Canada reduced its degree of tax centralization. Of course, centralization of the determination of the tax base and of tax administration can be viewed as clear evidence of government cartelization. It shows at the same time the importance of efficiency considerations referred to tax administration.

Our stress on the expenditure side of the budget and our idea that decentralization cannot be simply measured in terms of formal assignments, but it is also determined by the electoral responsibility of governments, can also help to understand why Canada, which is considered as a highly fiscally decentralized federation, finances the provision by the Provinces of health, education and social assistance with a system of block grants, whose allocation is based on population. According to our index of decentralization, health, education and social assistance are in that country to some extent centralized functions.

Coming back to Argentina the experience in the decentralization of education in 1991 and the subsequent shaping of the National Fund for Teacher's Incentive (*Fondo de Incentivo Docente*) in 1998 constitutes an interesting case that supports our argument. In late 1991 the administration and financing of educational services until then in the hands of the Central government (mainly high schools) was decentralized to the Provinces. At the time when the decentralization of the system was decided, high school teachers depending on the Central government had lower salaries than those depending on provincial governments. Therefore, the problem was to decide who would be in charge of leveling out the salary difference. This situation generated long negotiations and intense labor union conflicts. Finally, at the end of 1998, the federal government approved the National Fund for Teacher's Incentive, which would be financed with a provisional and federal tax on cars, reassuming, in part, the salary financing that was decentralized seven years before.

## **Conclusions**

This paper aims at being a contribution to the literature on tax (de)centralization. It presents a very simple bargaining model between the federal/central government and the Regions that illustrates the main choices open to both levels of government, in terms of revenue and expenditure assignments.

The main results are that transfers will prevail on subnational taxes – that is, centralization of taxes will take place - when substantial efficiency gains in centralization of tax administration are expected.

The main contribution of our paper lies, we believe, in the introduction of the expenditure side of the budget and of its relevance for solving the commitment issue. When voters hold the central government politically, or better electorally, accountable for a devolved function, the latter has, after centralization of taxes, to keep its commitment referring to the size of the transfer.

Our findings may be applied to a number of countries and of systems, as the evidence provided in the last section shows.





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