Journal of Applied Economics, Vol. II, No. 1 (May 1999), 169-209

WHY IS ARGENTINA'S FISCAL FEDERALISM SO INEFFICIENT? ENTERING THE LABYRINTH *

SEBASTIÁN M. SAIEGH and **MARIANO TOMMASI**

A long-standing concern in political economy is whether outcomes are efficient in political equilibrium. Recent contributions have examined the efficiency/inefficiency of policy choices from a theoretical point of view. The aim of this paper is to examine such issue empirically. Building on existing "economic" diagnoses that highlight the deficient incentives present in Argentina's Federal Tax-Sharing Agreement the paper will attempt to understand the politics behind its adoption and persistence. We suggest an explanation based on the transaction costs of Argentina's political market. Although potentially Pareto-improving policies could could have been adopted, they were not introduced because of the uncertainty over the future status of today's bargains, and given the lack of institutions to enforce bargains among the political actors. The paper concludes offering some preliminary ideas for institutional engineering: what governance structures could help reduce these transaction costs? The purpose is to create an institutional framework in which political actors could negotiate among themselves, ensuring the enforceability of agreements, in order to achieve more efficient outcomes.

---

* Centro de Estudios para el Desarrollo Institucional (CEDI) Fundación Gobierno & Sociedad and Universidad de San Andrés. This paper is a substantially revised and abridged version of the one prepared for the Conference on "Modernization and Institutional Development in Argentina", PNUD, Buenos Aires, May 20-21, 1998. We want to thank Douglass C. North for his valuable comments and encouragement. We are also indebted to Hugo Acciarri, Paula Alonso, Gary Becker, Daniel Castellanos, Jeff Frieden, Rune Hagen, Mark Jones, Jorge Macón, Gerry McDermott, Charles McLure, Guillermo Molinelli, Roberto Steiner, Michael Tomz, Federico Weischelbaum, Edgardo Zablotsky and Seminar Participants at CEDI, Fundación Gobierno y Sociedad, Universidad de San Andrés, Universidad T. Di Tella and the Latin America and the Caribbean Economic Association meetings for their comments; to Valeria Palanza and Gisela Sin for their assistance; and specially to Matías Iaryczower for many discussions on these issues. Several parts of the paper make liberal use of ideas developed in an ongoing joint research agenda with Matías Iaryczower. As usual, all errors are the authors' own.

Introduction

Argentina is a federal republic consisting of 23 provinces and an autonomous district, Buenos Aires City. Still, the main agent responsible for the collection of most taxes at the provincial level is the federal government. Most taxes are collected nationally and then allocated between the federal government and across the provinces. This transfer scheme is generically referred to as *"Coparticipación Federal de Impuestos"* (federal tax-sharing agreement). The first such regime dates from 1934, and throughout the years it has been repeatedly altered. As a result of these successive modifications, the tax sharing system has evolved into an intricate scheme. According to many observers, its current configuration does not correspond with any economic criteria, and provides all sorts of perverse incentives (a salient one being the incentive of provincial political leaders to overexploit the common pool of national taxation.)

The question we want to address in this paper is why did the political actors make a collection of choices that eventually produced a system that can be judged as inefficient from an economic point of view. This inquiry is naturally related to a long-standing concern in political economy: the efficiency or inefficiency of income redistribution. Recent studies have revitalized such debate, focusing on the ability of the political process to produce Pareto-efficient outcomes. This literature has promoted many healthy discussions about the inefficiency of policies and institutions, as well as some interesting arguments for a transaction-cost theory of politics.[1]

---

[1] A good introduction to the discussion about the efficiency of redistribution is given in Robinson (1998). The pioneer application of the "transaction-cost" logic to study the policy-making process is North (1990b). It is worth noting, though, that "transaction costs" do not provide a single analytical framework, but only a loose conceptual background for organizing many analytical models.

Our aim, thus, is to contribute to those debates by analyzing the history of federal fiscal relations in Argentina. The argument developed in this paper is that time consistency problems, asymmetric information and other special forms of transaction costs impeded Argentina's political leaders to move towards more efficient outcomes.

We believe that the evolution of Argentina's federal fiscal arrangements offers a natural ground for this kind of study, because fiscal issues are at the heart of the State (one of the main actors in any political-economy analysis);[2] and because sub-national governments provide natural actors for a political transaction-cost analysis.[3] Not only are some of the key actors easy to identify, but also the welfare effects of budget allocations are somewhat easier to recognize and measure than those of, say, regulatory policy or trade policy.

This paper is a first step in a research agenda where we will attempt to identify the relevant political transaction costs that led to this inefficient social outcome. Our main tasks will be to "unbundle" the blanket category of "transaction costs" into empirically verifiable elements.

This paper is organized as follows. Section I offers a brief review of the recent literature on redistributive politics and economic inefficiency. Section II, provides a picture and critique of Argentina's current Federal Tax-Sharing regime. Section III contains an interpretative sketch of the evolution of tax-sharing agreements in Argentina. Section IV suggests some principles that help to unbundle the "transaction-cost" argument into categories relevant for the Argentine case. Finally, section V provides some preliminary suggestions for institutional reforms that could generate governance structures conducive to reduce the incidence of transaction costs.

---

[2] Some of the most important work in modern political economy has tended to move swiftly from general theoretical discussion to fiscal applications. Inman (1987) provides an excellent survey and overview of this "general-fiscal" political economy literature.

[3] This is a good point to announce that, even though a large part of our discussion will take "provinces" as actors, we believe that many of the relevant transaction costs in this matter relate to principal-agent problems between citizens and government officials.

I. Relation to the Literature.

There is no clear consensus in the political economy literature on the ability of the political process to produce Pareto-efficient economic outcomes. That is, to allocate resources in such a way that all gains from trade are exhausted and that no one can be better off without someone else being worse off. As Dixit notes, this would be the case if the workings of the political process conform to the ideal benchmark of the Coase theorem (1960), so that no policy that can benefit some group of people without hurting others goes unconsummated and no Pareto improvement goes unrealized (Dixit 1996: 38-39).

Some economists (for example, Wittman 1989 and 1995)[4] argue that the redistributions we observe in the real world — while reflecting underlying distributions of power —, are (constrained) Pareto efficient.

Still, recent studies have made an opposing argument, claiming that the political process might fail to implement policies that could make all individuals better off given the available instruments of redistribution (Coate and Morris 1995, Dixit and Londregan 1995, Dixit 1996). According to these authors, redistributions to special interests (for example, the support to declining industries) are especially harder to interpret within an "efficiency" view of politics. The traditional explanation of why declining industries are inefficiently protected is based on Olson's logic of collective action (1965) and (1982): small groups with large individual stakes could organize and obtain benefits at the expense of a large number of disorganized actors with small individual stakes. Still, as Dixit (1996) contends, a closer look at this argument indicates that the underlying theoretical reasons for inefficient policies must lie in considerations such as **asymmetric information**, **time**

[4] Initially we included Becker (1983) as another example. We thank Professor Gary Becker for pointing us out that what his paper really claims is that taxes, not necessarily subsidies, tend to be efficient. In Becker and Mulligan (1996), they argue that it may be in the interest of taxpayers to promote inefficient subsidies to discourage political action by subsidy recipients.

consistency problems and other special forms of transaction costs (otherwise, again, a Coasian result should obtain).

The sub-field of information economics has emphasized the importance of informational limitations on the workings of the economy in the past three decades. As Stiglitz notes, market equilibria with imperfect or incomplete information are generally not constrained-Pareto-efficient (1997: 29). Similarly, in many cases economic inefficiency caused by redistributive politics is also rooted in informational problems. This view has traditionally been associated with the “Virginia school” of political economy: given that citizens are poorly informed about the effects of different policies, politicians can select inefficient and “sneaky” methods of redistribution over more transparent and efficient ones in order to provide benefits to special interests. Yet, this argument can be criticized by pointing out that in such case, enterprising politicians would have an incentive to inform the voters and offer the beneficial policies in order to gain their support (Wittman 1989; Dixit and Londregan 1995). Coate and Morris (1995) present a more compelling argument. They contend that inefficient methods of redistribution may be employed when voters have imperfect information about both the effects of policy and the predispositions of politicians. The example they present is the following: suppose there is a public project that is beneficial to a special interest but also, under certain conditions might enhance the welfare of citizens. A problem arises because when citizens see the realization of the project they cannot tell whether the politician is acting in their interest or simply making transfers to the special interest. Their model suggests that if politicians are all identical and known to be so, the transfers to special interests will be made efficiently. Yet, if politicians differ from each other (in terms of, say, honesty) and their types are not perfectly observable to citizens, then transfers to the special interest might be made inefficiently.

This literature also suggests explanations to the phenomenon of economically inefficient redistributions based on the dynamic inconsistency of the political process. Dixit and Londregan (1995), for example, developed a model where the anticipation of future political success makes workers stay in declining industries. They argue that even if there is an efficient solution to the problem of a declining industry from an economic point of view (compensate the workers for the capitalized value of their losses in a lump sum, and then leave them to find and take up their best alternative opportunities), the political process will fail to implement such policy. Politicians are not going to offer such capital sums up front because the recipients cannot credibly promise their political support over the period that spans the duration of their prospective income loss, so compensations will take the form of a gradual stream of payments. The problem is that under this transfer scheme, the workers will have to make the decision on whether to relocate or not, knowing that once they have moved, elected officials may renege on their promises and discontinue the flow of future installments. Consequently, in anticipation of this, the workers' moving decision will dilute and, thus, the declining industry will be partially or totally locked in.

Therefore, the fact that in a representative democracy elected officials cannot make binding agreements about future policy is another reason why politicians might not always choose the most efficient method of redistributing incomes.

Moe (1990) made a related point. He contended that political property rights are especially insecure in democratic regimes, because programs that are put in place by one generation of politicians are subsequently subject to reversal when incumbents are voted out of office. According to him, thus, inefficiencies are intentionally created in the public sector as a means by which to achieve program persistence and/or to obtain political support for programs that would otherwise be defeated.

Similarly, Besley and Coate (1998) have pointed how the problem of time consistency may lead political actors to overlook economically efficient policies. According to them, political turnover may hinder the implementation of potentially Pareto-improving public investments for three reasons: i) because of fears that future compensation needed to cover current costs will not be delivered; ii) because such projects may change the identities of future decision-makers; iii) because such projects may change the policy choices of future decision-makers.

What all of these accounts have in common, thus, is that they explain the adoption of inefficient policies (or the failure to implement Pareto-improving ones) as a result of the inability of citizens and policy-makers to reach binding agreements about future policy. As Besley and Coate point out, the undertakings of such bargains might seem utopian given the transaction costs involved (1998: 153). Generally, the exchanges involved are made over time, are difficult to specify in advance, involve different people at different times, and need to accommodate a shifting distribution of resources. Thus, it is tremendously difficult to carry out their enforcement (Weingast and Marshall, 1988; North, 1990b).[5]

In the rest of this paper we describe the Argentine federal fiscal system and the political dynamics behind it, attempting to identify the relevant political transaction costs; i.e., utilizing the "transaction cost politics" approach suggested by North (1990b) and Dixit (1996).

II. Argentina's Federal Tax-Sharing Agreement

Argentina is the most decentralized country in Latin America in terms of public spending, with approximately 50% of its total occurring at the sub-

[5] On top of the problems associated with the time dimension of political transactions emphasized in the text, "transaction-cost politics" also stresses the cognitive difficulties involved in the policy-making process. In order to reach the alleged "Coasian" bargains, policy-makers should also be able to know the connection between the policies they adopt and the effects they desire. Still, political actors do not choose policy outcomes, but rather policies whose effects on outcomes are, usually, uncertain and realized over time (Cukierman and Tommasi 1998a and 1998b). As North (1990b) suggests, those who participate in politics frequently use erroneous models of the world to guide their actions, and the information feedback they receive is usually not sufficient to cause them to revise their initially incorrect theories (1990b: 356). Moreover, ideologies (a "hodge-podge of beliefs, myths, sound theories and dogmas") underlie the subjective models these actors' posses to explain the world around them.

national level (Interamerican Development Bank, 1997).[6] At the same time, Argentina has a high degree of vertical fiscal imbalance. From 1985 to 1995, an average of 65% of provincial expenditures were financed through transfers from a common pool of nationally collected taxes, with only 35% financed from direct own-provincial revenues. The importance of the transfer mechanisms as determinants of provincial fiscal behavior is obvious. As Figure 1 shows, there is a high variation around this 35% (weighted) average.[7] Ten provinces finance less than 15% (and sixteen provinces less than 20%) of their spending with their own resources.

The Argentine Constitution establishes that the federal government will employ tariffs on foreign trade to finance its expenditures, while provinces will finance themselves through taxes on production and the consumption of specific goods. Over time, however, for economic and political reasons, the national government became the main agent responsible for the collection of most taxes at the provincial level. The process by which these taxes, once collected, are then re-allocated to the provinces has been the source of numerous conflicts and modifications. Argentina's first national tax-sharing agreement ("Ley de Coparticipación Federal de Impuestos) dates from 1935.[8] Periodically new tax laws have been written to regulate this distribution. The current law dates from 1988. It established that the federal government would retain 42% of these taxes while 57% were to be distributed among the provinces, with the remaining 1% set aside "to finance unforeseen crises in the provinces."[9] The law also establishes the percentages of the secondary

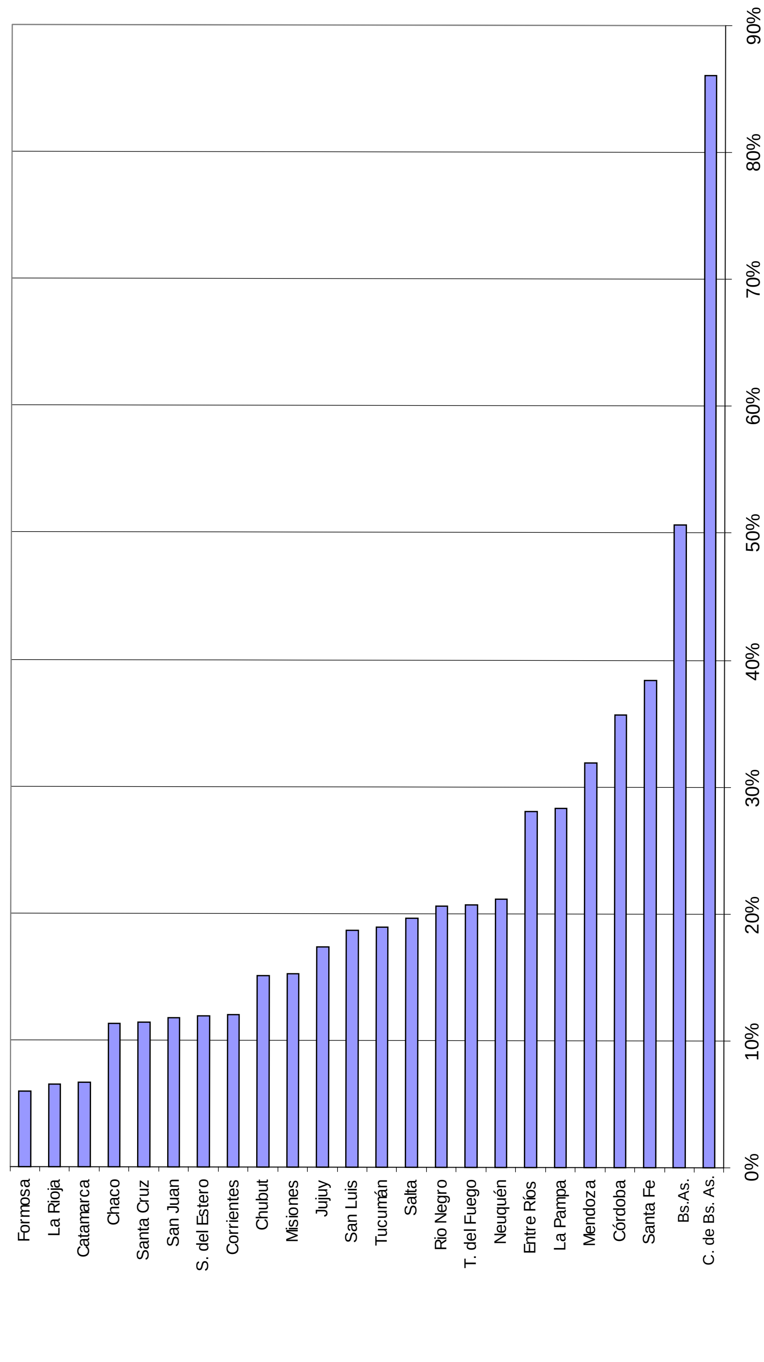
[6] If we exclude the pension system, provincial plus municipal spending in 1997 was twice as large as spending by the federal government (Piffano, 1998).

[7] The simple average is just 23%, the difference being explained by the fact that the larger provinces (like Buenos Aires) tend to have smaller imbalances.

[8] These laws define the share of specified taxes to be transferred from the central government to the provinces ("primary distribution") and the way in which these funds are to be allocated among the provinces ("secondary distribution").

[9] In practice, these funds, called National Treasury Contributions (ATNs) are distributed in a discretionary way by the National Executive, through the Ministry of the Interior (the "political" ministry *par excellence*).

Figure 1. Vertical Fiscal Imbalance
Own Revenues as a % of spending by each province



distribution, and is supplemented by several other laws regulating the distribution and destination of some specific taxes that finance a set of predetermined activities.

Some of the main features of the 1988 tax sharing scheme prevail today, even though there have been numerous changes and adjustments. One of the main changes was to establish “precoparticipaciones,” that is, to redirect parts of the tax revenue originally destined to the tax-sharing scheme toward other purposes. (For instance, in 1992 and 1993 the national government was able to achieve a 15% reduction of the amount to be shared with the provinces, in order to finance the growing social security deficits.) Another important change was to provide some fixed-sum transfers and a minimum transfer guarantee to the provinces. Another factor was the decentralization of many educational and health services since 1992. This was to be financed by a transfer equivalent to the estimated cost of the services transferred. According to World Bank (1996), the tax-sharing system has reached a high level of complexity, not corresponding with any economic criteria. In the next subsection we list the main “defects” that the literature has identified in the current working of the Argentine tax-sharing agreement.

The 1994 Constitution established that a new Coparticipation Law had to be sanctioned before the end of 1996, but that deadline was postponed until the end of 1998, a date at which a new law has not been produced either. The discussions currently under way (documented in Palanza and Sin-Silva, 1998) could be interpreted as an indication of the “transaction cost” nature of this crucial institutional decision.

We provide below a listing of some of the main criticisms directed towards the Argentine tax-sharing regime.

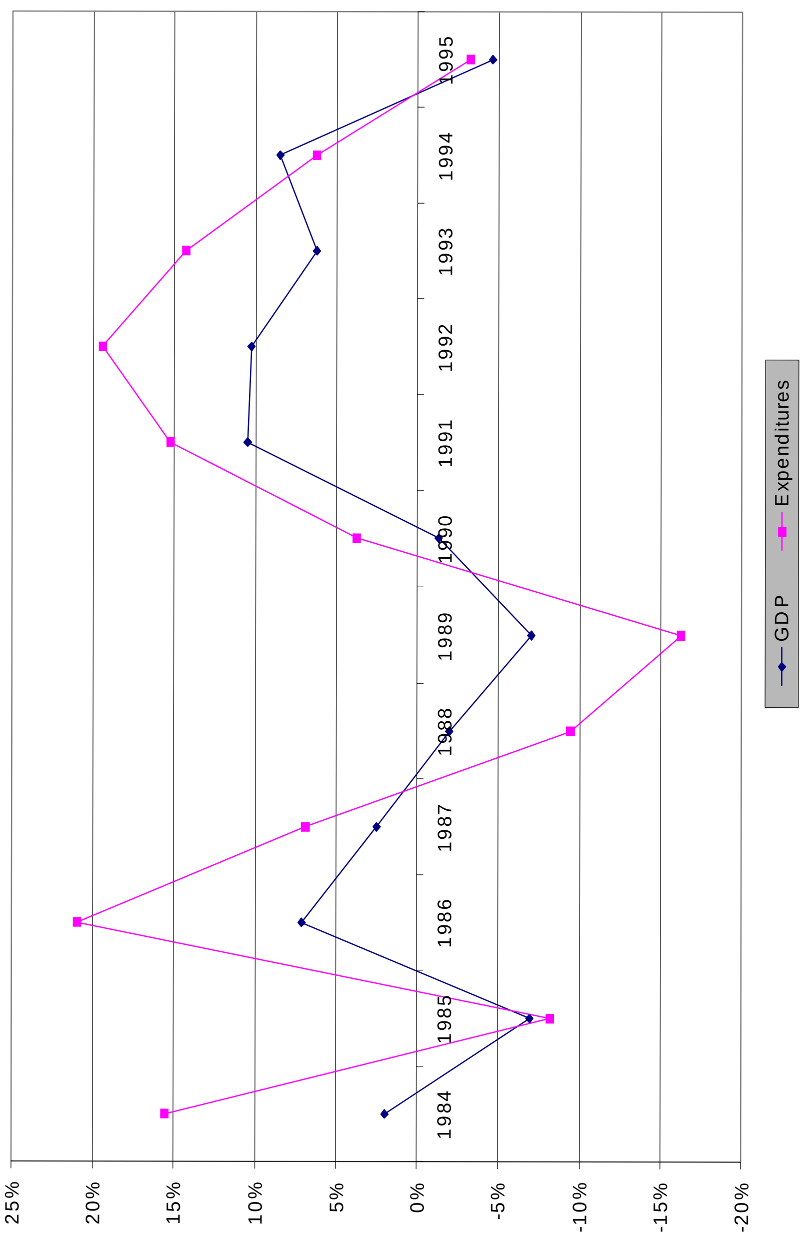
1. Lack of “Fiscal Correspondence”: The high degree of vertical fiscal imbalance in Argentina, coupled with the relatively large fraction of government services provided at the sub-national level, contributes to create a *common pool problem* across provinces. This induces provincial governments to behave as if they did not face a hard budget constraint, increasing spending and reducing local tax effort

2. The Bailout Problem: (a dynamic version of the common-pool problem). It refers to the fact that higher levels of government are likely to bail-out lower levels of government in financial distress, generating a moral hazard problem that undermines the incentives of lower units to behave in fiscally responsible ways.

3. Perverse Intertemporal Fiscal Behavior: Both Keynesian and neoclassical macoreconomic models recommend countercyclical fiscal policy, to help to smooth out business-cycle fluctuations. Empirical evidence for OECD countries has found a behavior roughly consistent with these recommendations. Argentina, on the contrary, as most of Latin America seems to "suffer" from procyclical fiscal policy, magnifying aggregate economic fluctuations. Several authors have argued that this behavior in Latin America is related to the behavior of multiple fiscal authorities in decentralized settings. In the case of Argentina, we have found preliminary evidence that fiscal behavior at the provincial level is highly procyclical and that this is, in part, caused by the tax-sharing system.[10] As an illustration, Figure 2 shows the rates of growth of GDP and of aggregate provincial spending for the last ten years. The two are highly correlated, with provincial spending over-responding to the fluctuations in output. Also, the instability

[10] In relation to that, many authors have argued that the tax-sharing system makes fiscal adjustment much harder to attain. Recent evidence is provided by stabilization efforts during the Alfonsín administration (Aizenman, 1998), and during the Convertibility plan (Schwartz and Liuksila, 1997). In both instances, faced with the need to correct large macroeconomic imbalances, the federal government introduced major tax, spending and administrative reforms that succeeded in raising the ratio of taxes to GDP. Through these efforts at the federal level, provinces received an automatic revenue windfall via the various revenue transfer mechanisms. The financial problems the provinces experienced during the 1995 recession (after the Mexican crisis) reflected difficulties in cutting back expenditures in line with reduced transfers, particularly from coparticipation.

Figure 2. Procyclical Behavior of Provincial Public Finances: Annual Growth Rates of GDP and Provincial Spending



of coparticipation funds seems to have induced fluctuations in government consumption and a lack of predictability, which, in any sensible intertemporal model of the economy, produces welfare losses.

4. Induced Inefficiencies in the Aggregate Fiscal Mix: The fact that some taxes are shared and others are not has induced the federal government to make some inefficient decisions. As Tanzi (1996) has suggested, this leads to situations where non-shared taxes acquire greater weight in the tax system, even when they are less efficient. - Also, when fiscal adjustment is necessary, the "optimal response" tends to include a mix of increased taxation and spending cuts. Given that the increase in taxes is partially dampened by transferring 50 % of them to the provinces, this biases the federal government towards "excessive spending cuts." Similarly, at times this has prompted the federal government to raise import-related revenues.[11] [12]

5. Lack of Achievement of Fair Redistributive Outcomes: The development of the tax-sharing regime over the years has been intimately related to redistributive efforts. Many analysts argue that "genuine" redistribution towards the poorer regions has been mixed with other redistributive ventures, favoring politically powerful (needy or not) actors. -For instance, Porto and Sanguinetti (1996) show that, even though on average the regime has redistributed towards poorer regions, more detailed analysis indicates that some richer provinces have benefited more than some poorer ones and that, even among poor provinces, the redistributions do not follow any reasonable indicator of fiscal need.- There is also the suspicion among

---

[11] Also, there has been a tendency to implement different "*precoparticipaciones*" to "compensate" for changes in taxes or national spending needs.

[12] A similar problem occurs in the relation of each provinces to its municipalities. Provinces have to transfer a fraction of the coparticipated taxes to municipalities. Depending on the intra-provincial political relations, oftentimes the provincial government has incentives to trade coparticipation funds for other monies which give "him" more discretion (we thank Federico Weischelbaum for bringing this point to our attention).

observers and political actors that the true impact on the personal distribution of income does not follow the regional distributive pattern. Many regimes are thought to redistribute towards the richer citizens of the poorer provinces. An often cited example is the "industrial promotion" (i.e. tax breaks for businesses in some poor provinces) regime. Another suspect is the "national housing fund" (FONAVI) which does not reach the very poor and has evolved into a mechanism for subsidizing middle-class housing (Schwartz and Liuksila 1997).

6. Irregular Provision of Public Goods: Part of the proceeds of several specific taxes are earmarked to finance several specific services. In practice, the provision of those services fluctuates along with those taxes, instead of following "demand side" needs.

7. Distorting Taxes: Some of the taxes that amount to a large fraction of provinces' own revenues are highly distorting and harmful for competitiveness (gross-income tax; "stamp" tax).

8. Poor Tax Compliance: Tax compliance in Argentina is very deficient. For instance, compliance of the nationally collected VAT was estimated to be 34% in 1989 and 55% in 1994, while neighboring countries like Chile (80%) and Uruguay (70%) have much better compliance rates. This is not strictly a consequence of the tax-sharing system but there are reasons to believe that the current regime provides no incentive for provincial authorities to collaborate in the enforcement of the collection of the most important (shared) national taxes. This is the common pool problem again: why pay the political cost of using local police to close down businesses that fail to pay taxes if there is no connection whatsoever between how much is collected and how much is received by each province out of national taxes?

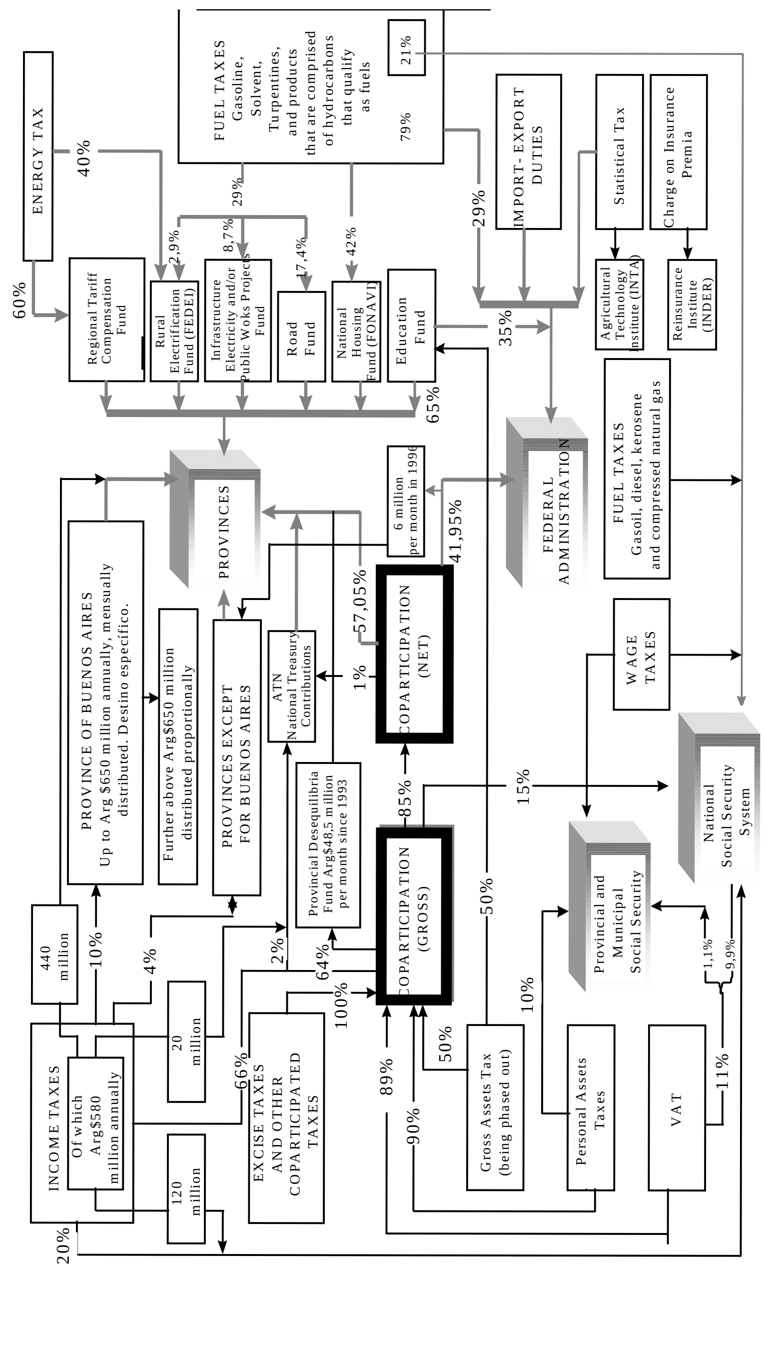
9. Lack of Information and Lack of Incentives to Produce Information: The current discussions around the possible reform of the tax-sharing regime make clear that most actors believe that there are better, more rational, ways of designing intergovernmental transfers. In a recent meeting, there were several statements by provincial governors complaining about the lack of information on the way coparticipation money is spent in other provinces (Palanza and Sin-Silva 1998). There is a clear sense that the current regime rewards inefficiency, through some sort of "ratchet effect," by which provinces that behave with austerity today, are penalized with reduced funds next round. Hence, there is little incentive, at the level of one individual provincial government to spend the effort and the resources necessary to provide better information about the costs and technologies for satisfying the different public needs in that province.

10. Misallocation of Time and Managerial Effort of the Authorities: It is evident that the "Federal Fiscal Game" provides incentives to political participants to spend most of their effort and ingenuity trying to alter the redistributive mechanism in their favor. It is commonplace in Argentina that governors and other local officials spend more time in Buenos Aires lobbying for redistribution, than in the province generating, implementing and monitoring adequate public policies. (This is related to the poor information incentives described above.)

11. Complexity: In Saiegh and Tommasi (1998) we provide a description of the Argentine tax-sharing regime, taken from the International Monetary Fund volume on federal fiscal arrangements (Ter-Minassian, 1997). What the description, summarized in Figure 3, suggests is that the ever-increasing complexity of an interdependent network of different shared taxes and of expenditure functions and decision-making bodies renders it impossible for voters and taxpayers to identify which government spends or taxes and for what purposes. [13] This breaks the benefit-tax link that is essential for

[13] Figure 3 is a representation of what many observers have dubbed the "**Coparticipation Labyrinth**." Our own construction (based on Ministry of the Interior, 1996; Schwartz and Liuksila, 1997; and Llach, 1997) may well be inaccurate at the time of writing, and will most likely be inaccurate at the time of reading.

Figure 3. The Labyrinth



enhancing efficiency in the provision of public goods, at the same time that magnifies the problem of exploitation of the common pool.

III. The building of the fiscal "labyrinth"[14]

Many analysts have pointed out that the extant set of federal fiscal institutions does not correspond with any economic criteria, and provides all the perverse incentives enumerated above. The question we want to address, thus, is why such institutions were adopted and then persisted over the years.

To attempt answering that question, it is useful to refer to the distinction in Tsebelis (1990) between "efficient" and "redistributive" institutions. We think that the explanation is that the main political actors were unable to move to Pareto improving institutional arrangements and (not "or") that powerful political actors or coalitions at some points in the past were able to instrument institutional changes favorable to them in the short run, but deleterious to society in the long run. We believe both sets of reasons were present in the federal fiscal history of Argentina, and that they interacted to create the current situation.

In an environment which has been quite unstable politically (recall the numerous military "interruptions") and economically (inflation being its most salient expression), political actors tended to adopt a particularly myopic perspective, did not invest in building more efficient institutions, and attempted to protect their (quite vulnerable) property rights.[15]

---

[14] Those readers interested in a more detailed account can consult Saiegh and Tommasi (1998) and references there. The current summary owes a great deal to ongoing research with Matías Iariczower.

[15] As Moe suggests, the authority of decision making can be viewed as a property right (a political property right), and the instability of these property rights has profound consequences in the political actors choices once they are in power: policies and institutional structure are designed to protect these property rights.

Hence, many of the features of the coparticipation system derived from this particular process of institutional change: sudden changes that improved the bargaining power of a group of agents lead in some cases not just to minor adjustments at the margin, but to steep radical changes (sometimes, the alteration of the rules of the game altogether).

Rules that were put in place by civilian governments were subsequently reversed by military regimes and vice-versa. The changes usually involved alterations to the criteria for revenue sharing between the federal government and the provinces as well as among the provinces. When the power was more concentrated in the national government (mostly during military regimes), the changes were intended to shift the distribution of shared taxes in its favor. This was achieved by different means, such as explicitly changing the proportion of tax revenues the national government had to share with the provinces, or in more subtle ways, by introducing new taxes (not to be shared), or increasing the rates of existing but unshared ones.

Conversely, with democratic opening, the once again elected provincial governors and legislators engaged in new debates over the distribution of tax revenues in order to reverse the changes that were produced during the previous regime. This usually resulted in modifications to the distribution of shared taxes in the provinces' favor.

In our view, these attempts of political actors to protect and to appropriate property rights in an uncertain environment account for the inefficient evolution of policies and institutional structure. Indeed, over time, the successive changes eventually lead to: a) rigidity of the coparticipation mechanism (in terms of incapacity to properly adjust to economic shocks); b) poor incentives for healthy fiscal performance, and c) the unclear rationality of redistribution.

For example, a typical way to appropriate more resources consisted in the discretionary use of instruments, other than the "vertebral" tax-sharing agreement to favor specific provincial coalitions which were politically important at that moment in time. Another example would be not delivering the fair compensation to each provincial government after changes in the federal fiscal system such as the decentralization of certain services, or changes in tax policies.

Whereas the institutional rigidities that were introduced in trying to limit these changes included:

(1) making the tax-sharing regime (which has the nature of a veto game, since coparticipation laws have tended to be "*Leyes Convenio*")[16] more inclusive, to minimize the range of decisions relating to the federal fiscal regime which are taken by unstable majorities in Congress or, even worst, by discretionary bargains between the national executive and provincial governments

(2) establishing minimum revenue guarantees for the provinces

(3) establishing floors in terms of the share of coparticipated revenues to each province

It is worth noting that the extant law (which was sanctioned as a temporary law in 1988) has all the appearance of being a non-discretionary rule , which specifies exactly the pool of shared taxes and the fraction of tax revenues going to each jurisdiction. In fact, as the labyrinth in Figure 3 (partially!) indicates, there have been many alterations (precoparticipations, "Pactos Fiscales"), which in turn have generated further moves attempting to increase the "rigidity" of the system as those embedded in the 1994 Constitution. (The very fact that several features of the tax-sharing regime are written in the constitution is, in part, the ultimate example of institutional rigidity).

While the institutional structure of federal fiscal relations in Argentina

---

[16] *Ley convenio* is a law that requires ratification by provincial legislatures. In practice, the approval of these laws has been negotiated by the provincial governors with the national executive, at the same time that in the national Congress. It is worth noting that the institutional set-up has also evolved from a relatively "majoritarian" decision making procedure towards the current situation in which the 1994 requires a Ley Convenio. This could be interpreted as a reaction of the political actors to the uncertainty induced by instability.

initially developed to protect property rights introducing more veto power, the existence of loopholes in the original agreements[17] and the possibility of altering payoffs with substitutes to coparticipation funds which can be decided with "lighter" majorities[18] gave place to the opportunism of different coalitions which violated previous agreements (the coparticipation laws) and in this way introduced instability to property rights.

This has three basic effects. First, it modifies directly the vertical and horizontal allocation of funds, driving it away from "technical" considerations (equity, efficiency, explicitation of stable criteria). Second, it destroys possible commitment technologies for the national government, leading to dynamic inconsistencies, which relate to the common-pool (bad timing) and bail-out problems previously described. Finally, it affects the "structural" decisions, inducing the imposition of rigid limits to prevent this opportunism.[19]

Two recent anecdotes serve to illustrate the "transaction cost" nature of the problem, in the sense that extant political transaction costs impede moves towards more rational economic policies and institutional arrangements:

1. In 1998 the National Executive attempted to introduce a tax reform to lower the (non-shared) inefficient labor taxes at a time of high unemployment, and to raise shared taxes.[20] To compensate, it requested some amount to be

[17] Reflected in practices like pre-coparticipations, altering the mix of taxes, creation of new taxes, the inflation tax, debt, etc.

[18] (ATNs, national spending in the provinces, special funds, other laws favoring specific regional constituencies, etc)

[19] These limits are both "implicit" and "explicit". The implicit ones relate to the absent qualities of the regime in terms of the flexibility, efficiency and insurance that could be expected from an efficient contract. The explicit ones are the list provided above, with its ultimate manifestation in the 1994 Constitution. All of these rigidities, in turn, increase the payoff from breaking the rules. These highlights the fact that, on top of the usual costs of rigidities identified in the "Rules vs discretion" debate, we identify here the fact that rigid rules are more likely to be violated.

[20] After substantial negotiations and modifications the law has been passed, although there are still several attempts at changing and partially reversing it.

pre-coparticipated to the national government. The provinces resisted this complementary clause (in part because of disagreements about the estimates of the revenue potential of the increase in the rates of shared taxes that it would produce). This reflects the incapacity to come up with more complete contracts, contingent on the actual produce of the tax changes, at the same time that highlights the type of rigidities we are emphasizing.

2. All fiscal experts agree on the need to decentralize some taxes from the national government to the provinces.[21] The timid attempts at implementing such decentralization faced fierce opposition from most provincial governments — the opposite situation from what happened in Australia (Painter 1998). This attitude (perfectly understandable in light of prior experiences) reflects the inexistence of adequate mechanisms to calculate compensations and enforce these deals. Every actor fears that, in passing to a new system with uncertain payoffs, part of current "property rights" might be lost — and there is also an element of "hold-up" in each province refusing to approve a beneficial social change in the hope of receiving an extra payment for its vote.

IV. A Transaction-Cost Politics Approach to Study the Development of the Argentine Tax-Sharing Agreement

The ideas presented in the previous section had the purpose of suggesting the existence of high transaction costs in political markets that oftentimes prevent the achievement of efficient solutions.

An important assumption of our reasoning is that instead of "coparticipation" being a pure redistribution game, some transactions among political actors may potentially have generated benefits for all concerned. The evidence presented in section II on the current system's inefficiencies buttresses this supposition.

---

[21] There is more disagreement about the details of such decentralization. Some details are provided in CEDI (1999).

As we argued in section I, from a transaction-cost theory of politics, the argument would be that the political actors tended to overlook policies and institutions that could have been Pareto-preferred to the existing arrangements.[22]

The purpose of this section is to attempt to identify the relevant political transaction costs that beset exchanges between political actors in the particular context of the Argentine coparticipation system. We attempt to "unbundle" the blanket category of "transaction costs" into some salient components.[23]

1. The Frequency of Political Interactions.

Political bargains are usually difficult to sustain. The problem is that the enforcement of political agreements depends on trust in their execution. Thus, when it is difficult to enforce agreements, political actors do not find it worthwhile to cooperate.

On the other hand, as "folk theorems" in game theory suggest, under repeated interaction certain norms of reciprocity allow trust and cooperation to develop. Thus, if an institution can secure political agreements by reducing uncertainty and transaction costs, it will make it possible to capture the gains from exchange. The case of a legislature such as the United States Senate is usually seen in the literature as an illustration of this (Weingast and Marshall, 1988; Cox and McCubbins, 1993; Krehbiel, 1991).

Yet, there is a problem that limits the workability of this solution: turnover. In the case of the US Congress, as Axelrod notes, "the chance of two members

[22] This is particularly the case when we incorporate the citizens as primary political actors to the analysis (see subsection 7 below).

[23] The (formidable) task of developing a definite set of categories or typical elements that a transaction cost analysis should have is extremely ambitious, and is beyond the scope of this paper. This section is in part an application of the logic and style of reasoning of transaction cost analysis to some of the most relevant aspects of the story summarized in the previous section; and in part an agenda for future research.

having a continuing interaction has increased dramatically as the biennial turnover rates have fallen from about 40 percent in the first forty years of the republic to about 20 percent or less in recent years" (1984: 16). The case of Argentina is radically different: due to the recurrent political instability, the turnover rate of political actors was extraordinary high. For instance, for executive positions at the national level, in the 55 years between 1928 and 1983, Argentina had 26 Presidents and 60 economic ministers. That is a change in President every 2 years and in economic authorities every 11 months.

Moreover, given the succession of military regimes, Congress — the natural arena for political bargains to be carried on — was closed during extended periods of time (40% of the time between 1928 and 1983).

Even in democratic periods, turnover rates have been extremely high. For example, the number of legislators that arrived to Congress for the fist time was 55% (Chamber of Deputies) and 40% (Senate) in 1934 and 1935 respectively, whereas in 1983, 93% of the deputies and 82% of the senators were "rookies" (Panosyan and Goretti, 1986). Today, after 15 years of sustained democratic regime, the turnover rate is still very high: 77 percent of the members of the chamber of deputies serve only one term (Jones 1996; Saiegh 1997).

2. Uncertainty and Influence: The Coparticipation Scheme as an Incomplete Contract.

In the presence of a complex and dynamic environment, an agreement that calls for the future collection/distribution of the fiscal revenues, such as Argentina's tax-sharing scheme, must be incomplete. That is, for an institutional arrangement of this type it would be impossible (or too costly) to specify in advance and in detail what actions the parties would have to take in all possible future contingencies.

What were the consequences of this incompleteness? Essentially, that because perfectly specified and freely enforceable agreements could not be written, the process of negotiation never really ended and power relations at any moment in time mattered exceedingly. Uncertainty played a major role in structuring the different coparticipation bargains throughout the years. These negotiations were made on an ad-hoc basis, without a consistent political arena for the negotiations (sometimes they took place inside and sometimes outside Congress), and without a stable legal framework.

This led political leaders to make efforts to increase the probability of reshaping the rules of the game in their favor instead of producing managerial innovations in the provision of public goods. In doing so, they spent valuable resources attempting to influence the decisions on coparticipation.[24] Lack of information and hidden information were resources that political leaders frequently used to influence decisions to their benefit and allowed them to enjoy rents.

In this context, the different jurisdictions' political resources played decisive roles in establishing the size and characteristics of the coparticipation scheme and particularly in determining its redistributive features. When the distributions deviated from those mandated by objective criteria and depended on the distribution of political power, the (most active) participants of the coparticipation game started to enjoy "surplus" or rents. Thus, differences in political power among the provinces, such as the political overrepresentation of the smaller ones in Congress, can help to explain the existence of some "funny" redistributive components of the coparticipation scheme (Porto, 1990; Porto and Sanguinetti, 1996; and Piffano, 1998).

[24] Thus, the behavioral patterns developed in this context were *efficient* at making the coparticipation scheme as a whole even more inefficient. We do not wish to blame or tag as irrational every political leader with this argument. On the contrary, their maximizing activity resulted from learning by doing and investing in the kind of skills and knowledge that paid off. A government official told the authors, that for a provincial leader it paid off much more to know the exact timetable of the flights to Buenos Aires – in order to extract resources from the national government— than either to know the details of tax administration in the province, or to supervise the behavior of the provincial tax-collection agency.

3. The "Argentine Federal Fiscal Game"

Several authors have provided game-theoretic formalizations of the common-pool problem in decentralized macroeconomic settings; for instance Aizenman (1993 and 1998), Aizenman and Isard (1993), Mondino, Sturzenegger and Tommasi (1996), Tabellini (1986). These papers present non-cooperative games in which independent authorities choose spending levels as in a Cournot-Nash game, and aggregate outcomes such as excessive spending, large deficits or inflationary finance (depending on the economic model) obtain. In all of these cases, the emphasis is on non-cooperative outcomes, as cooperation through repeated interaction is not obtained. We know that when the conditions for cooperation through repeated play are not met, there is still hope of attaining better outcomes than those of the non-cooperative Nash, through institutional design and/or self-imposed constraints. One way of achieving that would be to endow one player (say, the national government) with commitment capabilities— for instance, not to finance (ex-post) expenditures above a pre-specified limit.

Sanguinetti (1994) presents an interesting model, motivated by the Argentine experience, which captures some of these features. There are a number of local governments and a central government engaged in deciding their respective spending levels, to be financed out of national taxation. He analyzes three regimes: cooperative, non-cooperative and "commitment." In the latter, the national government is a Stackelberg leader who sets the tax rate before the simultaneous spending choices of all players. This regime leads to welfare outcomes superior to the non-cooperative case (although inferior to the cooperative one).[25]

We could interpret the history of fiscal federalism in Argentina as moving

[25] Sanguinetti and Tommasi (1998) extend that framework and consider the role of idiosyncratic economic shocks to the provinces. They show that, under asymmetric information, welfare comparisons present several trade-offs among different institutional setups. For instance, a "lax" fiscal regime may offer some advantages in terms of its risk-sharing properties.

back and forth along the line between the commitment regime and the non-cooperative one. For instance, we interpret the hardening of the national budget constraint through the Convertibility Law in 1991 (which forbade the Central Bank from printing money) as a step towards the commitment regime. Complementary steps were the privatization of several provincial banks. Further commitment could be achieved through some mechanisms that would require extraordinary majorities in order to approve assistance to provincial governments that run into financial crises.

The "game" we are describing is further complicated by the fact that the player "Nation" is not just a "benevolent central planner" but also a self-interested opportunistic actor.

4. Lack of Credible Commitment by the Federal Government (or The "Schizophrenic" Role of the National Congress)

As it is well known, the history of (fiscal federalism in) Argentina is plagued by mutual mistrust between "the center" and "the provinces." In the last few decades, one of the central axes of that conflict was the battle between the Federal government and the provincial governments over the distribution of fiscal obligations and resources.

It is clear that in the "game" across provinces, the national government is a potentially efficient institution onto which they can delegate powers as a way of solving some of their collective action problems. But at the same time, being an actor with its own interests, it faces serious credibility problems.[26] Indeed, the history has many instances in which this power has been abused.[27]

[26] The main reason is that there is an agency problem: the actors that embody the "National" interest (President, congressmen, bureaucrats, national party organizations, etc.) are not perfect agents of the people. Citizens actually live in one of the 24 sub-national jurisdictions (the story was slightly different before the "provincialization" of all federal territories). This is also an instance of a common-agency problem, as mentioned in subsection 7.

[27] On top of that "Bayesian" reason there is a Nation-Province "mental model" that hinders the building of trust. (See subsection 6).

The potential federal abuse of discretionary authority is a political equivalent of the hold-up problem in transaction-cost economics. Given the federal government agencies' inability to commit to a future course of action, potentially valuable transactions between provincial and national leaders may never take place. This is magnified by the fact that oftentimes, the federal government can "move" faster than the provinces due to their collective action problems.

This "conflict" has been mediated and or exacerbated by several institutions. One such institution is the National Congress (when it has been in operation), and its interactions with the national executive and with provincial governments.

5. The Entangling of Efficiency and Distribution

To return to one of the themes mentioned in the introduction, we believe that the story we are trying to understand can be conceptualized, to some extent, as a story of inefficient redistribution. The world is a very complex environment and the political actors will, in general, not be fully informed about the exact distribution of possible effects that a particular measure or arrangement will have on their welfare. When we combine this with all the conflicts of interests and commitment problems just described, it makes clear that there is ample room for the strategic manipulation of information: both about "facts" and about "mappings."

The story of "Coparticipación", as well as the broader history of economic policy in Argentina, is full of instances in which superficially plausible (but erroneous) arguments were made to justify particular redistributive policies and mechanisms.[28]

[28] One example have been the numerous "industrial promotion" schemes, tax exemptions for particular industrial ventures in particular regions, which were peddled as instruments for regional development.

6. Mental Models and Ideology

There have been several crucial turning points and several unrealized trades in the history summarized in Saiegh and Tommasi (1998), which can only be understood by reference to the "mental models" that the actors had at the time. The notion of "mental models" (internal representations that individual cognitive systems create to interpret the environment) is exposited in North (1990b) and Denzau and North (1994).[29]

One example is the perennial preoccupation with the uneven geographical distribution of population, wealth and economic activity. This is one of the "ideas" one would need to trace down from its justifiable origins, to the excesses and mistaken policies later committed in its name.[30]

7. Principal-Agent Problems

We believe that the Argentine federal fiscal relations provide a nice playground for a transaction-cost politics approach because the different political jurisdictions constitute "natural" players. This led us to put (perhaps too) much emphasis on the "games" across political units, as if they were unified political actors in which politicians act as perfect agents for their constituencies. However, that is certainly not the case; we believe that "agency problems" are pervasive in the political history of Argentina. Precisely those agency problems, coupled with imperfect voter information, are at the crux of the transaction costs we emphasize.

In particular, political situations like the ones we have been describing

[29] Professor North suggested that we further investigate the evolution of some mental models behind the history of fiscal federalism in Argentina, a task that we hope to accomplish in future work. Shumway (1991) provides a good account of some of the "guiding fictions" in Argentine history.

[30] It is worth mentioning that "the achievement of an equivalent level of development throughout the national territory" was enshrined in the 1994 Constitution as one of the objectives of the coparticipation regime to be created.

belong to the class of "common agency" problems (Bernheim and Whinston 1986, Dixit 1996). One general conclusion of models with multiple principals is that the power of incentives are very much weakened (an excellent application to the control of politicians by citizens through electoral mechanisms, which reaches a similar conclusion is Ferejohn 1986).

8. The Inflation Link

It is no discovery that the economic and political history of Argentina has been marked by inflation. The extremely high and unstable inflation history of Argentina in this century has had important bearings on the distribution of total tax revenues (inclusive of inflation tax) across jurisdictions, especially between the nation and the provinces. At the same time, inflation has been, to some extent, an outcome of the federal fiscal game we are analyzing. It operated sometimes as ex-post "closure" of the system, softening the aggregate budget constraint, and sometimes as a strategic weapon in the hands of the national government.[31]

One of the features to explore in the future is the strategic delay in the transferring of the collected taxes to the provinces, which in periods of high inflation might have substantially changed the real primary distribution. This might have been behind the provinces' preoccupation with institutionalizing the "automatic mechanism" of payments (now in place).[32]

A related feature of inflationary processes, of particular importance for a transaction-cost story, is that inflation complicates all type of nominal

---

[31] A telling episode occurred during the discussions in 1987 of what is the current Ley de Coparticipación. The Alfonsín government was cornered economically by the pressure of the International Monetary Fund, and politically by the peronist opposition. Hence, it utilized the threat of inflating the economy as a last resort in order not to concede even further in the negotiations around coparticipation, tax reform, and labor laws (Saiegh and Tommasi, 1998).

[32] This emphasis might have distracted from more rational discussion about the "fundamentals" that should guide the tax sharing agreement. For some thoughts on market applications of the same problem, see Tommasi (1993 and 1998).

calculations, increasing the cost of transacting. (See for instance Joskow 1974 for a transaction-cost approach to the effects of inflation on regulation).[33]

It remains for future research to explore the multiple links between the (federal) fiscal history and the monetary history of the country. We conjecture, that through this transaction-cost politics analysis one might be able to identify some structural characteristics of the Argentine case that lead to such an unusual inflation history, a task that, in spite of its obvious importance, has not been adequately resolved.

9. "Pre-coparticipaciones"

One of the salient dimensions of Nation-provinces conflict in recent times has been the use by the central government of the idea of "pre-coparticipaciones"; that is, amounts which are subtracted from the pool of coparticipation funds, for some particular use (oftentimes related to spending responsibilities of the federal government).

This "trick" clearly represents an instance of "ex-post" renegotiation with respect to previous agreements. Its use has intensified after 1988, which is further proof of the current system's inadequacy.

10. Provinces - Municipalities

Most of the economic arguments about the virtues of decentralization seem to apply better to smaller units such as municipalities or localities than to units of the size of the typical Argentine province.

On the other hand, there are possibly some "politico-economic" arguments that may call for a "provincial" structuring of countries; perhaps along the lines of Weingast (1995) and (1997); see also Inman and Rubinfeld (1997).

[33] In this area it is hard to establish causality, but the date of approval of the national budget is positively correlated with inflation (i.e., the budget was approved later in years of higher inflation; see Molinelli 1991, Chapter 9, Table 9).

It is obvious that the evolution of "federations" such as Argentina does not necessarily respond to any sort of "optimal design", but it is in large part history-dependent.[34] It would be worthwhile to explore these issues in our transaction-cost framework.

11. The mixing of long and short-term considerations in the negotiations

Several of the episodes described in Saiegh and Tommasi (1998) — for instance the discussion of the 1973 Law, and the Constitutional Convention of 1994 — reflect the fact that, short-term (circumstantial) considerations impinged upon the institutional outcomes. We hypothesize that some characteristics of the Argentine political environment sometimes induced political leaders to act in (socially) myopic ways.

This could possibly be a general characteristic of "the politics of institutional choice", relating to the differing horizons of many actors, which deserves special analysis in the transaction-cost view of politics.[35]

V. Conclusions: Some preliminary thoughts on institutional engineering

We have argued in this paper that the argentine political actors made a collection of choices that produced a tax-sharing system that, in the view of all experts is clearly inefficient.

We also claimed that since the political bargains around the coparticipation scheme were made over time, were difficult to specify in advance, and

[34] A particular aspect of this in Argentina relates to the fact that the "country" was originally "designed" as if the central economic activity would be the mineral exploitation of present-day Peru. That factor tended to generate a politico-bureaucratic structure in the northwestern provinces, which turned out to be dysfunctional in light of the subsequent economic evolution. (See for instance Sawers 1996 and Cortés Conde, 1974)

[35] A "Coasian principle" would call for separation of short-term from long term considerations (in the spirit of "constitutional political economy"; see Brennan and Buchanan, 1985 and Elster and Slagstad, 1988).

involved different people at different times, political actors could not make credible commitments and thus, potentially valuable transactions between them never took place. Thus, the issues of information and of intertemporal enforcement played a key role in precluding them from moving towards more efficient outcomes.

We believe that these inefficiencies are remediable (at least, in part).[36] We are attempting to propose a governance structure that will try to minimize the incidence of the main transaction costs described. Some work in progress along those lines is summarized in Iaryczower, Saiegh and Tommasi (1998). In this section we present a brief sketch of some of the suggestions for the establishment of a set of institutional arrangements that would allow the main actors to bargain with each other and reach a more efficient allocation of fiscal resources.

Such a proposal involves a trade-off between rules (i.e. a stable framework that would make it possible to avoid costly ruptures and discontinuities) and flexibility (i.e. an institutional arrangement that would allow for the introduction of improvements, and that would have the capacity to adjust to changed circumstances).

Given Argentina's past experience, the new institutional framework should be lasting so as to create a propitious atmosphere for the involved actors to make decisions in a foreseeable setting, allowing them to concentrate in managerial efforts instead of involving into continuous bids for the distribution of resources. On the other hand, it would also be commendable if this enduring legal framework had the necessary flexibility to adapt itself to (a) changes in the economic and social structure of the country, and also in the public policies chosen by the elected politicians; and (b) scientific, technical and informational advances, that would allow an improvement in the provision of the public services.

Therefore, the "governance structure" we have in mind is one that at the same time would allow the Argentine political actors to deal with on-going problems as they arise and yet provide a degree of durability to the whole

[36] This stands in contrast with the general theoretical view of Oliver Williamson (1996).

coparticipation scheme. At this point it is worth reflecting on the convenience of introducing flexibility in this way or in another form, for example with a legal framework with a predetermined duration, that should be replaced in turn by another institutional arrangement. The Argentine historical experience indicates that the latter could lead to a series of partial solutions (often incoherent with each other), incessant conflicts, and actually, to the very same labyrinth we are trying to leave behind. From a social choice perspective, such institutional "flexibility" can lead to very volatile outcomes because the size of the set of points that can defeat the status quo is usually quite large.

As a result of the political bargains that were held during the constitutional reform process, the new Constitution calls, in its article 75, for the creation of a federal fiscal institution (FFI) to oversight and control the execution of the coparticipation regime in the future. Although the constitutional mandate is rather vague with respect to this institution, we believe that it should secure political agreements by reducing uncertainty and transaction costs.

From our point of view, thus, the role of this governance structure, should be twofold: On the one hand, to reduce the chance that viable policies are overlooked, either because they are not considered or because information on their viability is misleading. On the other hand, its role should be to ensure that the enforcement of political agreements would be executed.

To fulfill these two goals at the same time, the proposed institution should have very strong technical capacities (to generate good information) and should be able to make decisions that are political in nature. A possible way to achieve that could be to conform the FFI with a Technical Committee (TC) composed by experts in fiscal matters and a Federal Fiscal Assembly (FFA) integrated by the political representatives of each jurisdiction (for instance, the ministers of economy of the provinces and of the Nation).[37]

[37] The "governance structure" suggested is similar to the institutional setting in place in Australia. (Australia, like Argentina, is characterized by a relatively large vertical fiscal imbalance.) The "TC" we are referring to is in some respects analogous to the Australian Commonwealth Grants Commission, which reports to a Premier Conference (analogous to our suggested "FFA"). See Craig (1997) for a description of the Australian federal fiscal system.

This way, whereas the TC makes policy recommendations, the implementation of these policies would be finally decided by the FFA. On the other hand, the FFA should not be able to make decisions if these are not based on the TC's analysis.[38]

With regard to the FFA decision making process, whether to support or reject the TC's policy recommendations, different voting rules (unanimity, special majorities, simple majority rule) and different voting procedures (open rule, germane rule, close rule) could be used to decide on different issues regarding the coparticipation regime. For example, the FFA could be able to introduce changes in the coparticipation scheme following a proposal made by the TC by a simple majority vote, while any change that had not been proposed by the TC should be done by a unanimous decision. Or — stated in the positive political theory jargon — the TC could be the "agenda setter" and then the FFA will take a vote on such proposals under a closed rule procedure. That is, the Assembly would approve or reject each proposal, and thus, in the case of a rejection, the status quo would remain.

Our research is still preliminary. Further work is needed in order to establish who should be the "first mover" in each one of these situations, and to study in more depth the "game" that would unfold after the players make their respective proposals. Ideally, and after conducting an in-depth analysis, we would like to provide some recommendations with respect to voting rules and procedures in the FFA, the most desirable sequence of moves, etc.

In any case, the main idea that is guiding these preliminary thoughts on institutional engineering is that under a federal fiscal institution with these

[38] Given that the TC will produce the information from which the FFA members should base their decisions, the design of the TC must seriously consider such aspects as the selection and removal of its members, its financing, etc. The objectives of the federal fiscal institution could be weakened completely if — as it has often happened in Argentina — the technical body is not conformed by people who are: (a) able to develop such a complex task; (b) absolutely independent of the interests involved (in this case the different jurisdictions); and (c) at the same time accountable to the FFA members.

characteristics, political actors would delegate the technical aspects to a technical committee (taking advantage of its expertise and conserving on scarce resources of time, staff and energy), and at the same time there will be an institutionalized context for political bargaining over fiscal matters.

References

Aizenman, Joshua (1993) "Soft Budget Constraints, Taxes, and the Incentive to Cooperate" *International Economic Review* 34(4), November.

Aizenman, Joshua (1998) "Fiscal Discipline in a Union" in F. Sturzenegger and M. Tommasi (Eds.) *The Political Economy of Economic Reforms*, Cambridge: MIT Press.

Aizenman, Joshua and Peter Isard (1993) "Externalities, incentives, and failure to achieve national objectives in decentralized economies" *Journal of Development Economics* 41: 95-114.

Axelrod, Robert. (1984) *The Evolution of Cooperation*. New York, Basic Books.

Becker, Gary (1983) "A Theory of Competition Among Pressure Groups for Political Influence" *Quarterly Journal of Economics*, August, 371-400.

Becker, Gary and Casey Mulligan (1996) "Is There a Public Choice Case for Inefficient Government?" Mimeo, University of Chicago.

Besley, Timothy and Coate, Stephen (1998). "Sources of Inefficiency in a Representative Democracy: A Dynamic Analysis", *American Economic Review*, 88 (1): 139-156.

Brennan, G. and J. Buchanan (1985) *The Reason of Rules: Constitutional Political Economy* Cambridge University Press.

CEDI (1999) (Foro de Instituciones Fiscales) "Consensos básicos sobre relaciones fiscales federales y Coparticipación." Mimeo.

Coase, Ronald H. (1960) "The Problem of Social Costs" *Journal of Law and Economics* 3, October 1-44.

Coate, S. and S. Morris (1995) "On the Form of Transfers to Special Interests" *Journal of Political Economy* 103(6): 1210-1235.

Cortes Conde, Roberto (1974) *The First Stages of Modernization in Spanish America*. New York, Harper & Row.

Cox, Gary W. and McCubbins, Mathew. (1993) *Legislative Leviathan: Party Government in the House*. Berkeley, University of California Press.

Craig, Jon (1997) "Australia" in T. Ter-Minassian (ed.) *Fiscal Federalism in Theory and Practice* Washington : International Monetary Fund.

Cukierman A. and M. Tommasi (1998a) "When Does it Take a Nixon to Go to China" *American Economic Review* 88(1), March, 180-197.

Cukierman A. and M. Tommasi (1998b) "Credibility of Policymakers and of Economic Reforms" in Sturzenegger and Tommasi (Eds.) *The Political Economy of Economic Reforms*, Cambridge: MIT Press.

Denzau, A. and D. North (1994) "Shared Mental Models : Ideologies and Institutions" *Kyklos* 47 : 3-31.

Dixit, Avinash (1996) *The Making of Economic Policy. A Transaction-Cost Politics Perspective*. MIT Press.

Dixit, A. and J. Londregan (1995) "Redistributive Politics and Economic Efficiency" *American Political Science Review* 89(4), December.

Elster, Jon and Rune Slgastad (1988) *Constitutionalism and Democracy* Cambridge University Press.

Ferejohn, John (1986) "Incumbent Performance and Electoral Control" *Public Choice* 50: 5-26. Traducido al castellano en Saiegh y Tommasi, compiladores (1998) *La Nueva Economía Política: Racionalidad e Instituciones* Buenos Aires: EUDEBA.

Fundación de Investigaciones Económicas Latinoamericanas.(1993) *Hacia una nueva organización del Federalismo Fiscal en la Argentina*.

Iaryckzower, M., S. Saiegh and M. Tommasi (1998) "Algunas consideraciones sobre diseño óptimo de Instituciones Fiscales Federales" mimeo, Center of Studies for Institutional Development, CEDI, April.

Inman, Robert (1987) "Markets, Governments and the New Political

Economy " in the *Handbook of Public Economics* vol II, edited by A. Auerbach and M. Feldstein, Elsevier Science Publisher.

Inman, Robert and Daniel Rubinfeld (1997) "The Political Economy of Federalism" in Mueller (editor) *Perspectives on Public Choice. A Handbook*. Cambridge University Press.

Inter-American Development Bank (1997) "Fiscal Stability with Democracy and Decentralization," Part 3 of *Report on Economic and Social Progress in Latin America*. Johns Hopkins University Press - IDB.

Inter-American Development Bank (1998) "Decentralization and Fiscal Discipline in Sub-National Governments : The Bailout Problem", Research Network Project, terms of reference.

Jones, Mark. (1996) "Evaluating Argentina's Presidential Democracy: 1983-1995", in Mainwaring, Scott y Shugart, Matthew Soberg (Eds.). *Presidentialism and Democracy in Latin America.* Cambridge, Cambridge University Press.

Jones Mark, Pablo Sanguinetti and Mariano Tommasi (1998) "Politics, Institutions and Fiscal Performance in a Federal System : An Analysis of the Argentine Provinces" Mimeo, Universidad de San Andrés.

Jones Mark, Pablo Sanguinetti and Mariano Tommasi (1999) "Politics, Institutions and Public Sector Spending in the Argentine Provinces" in James Poterba and Jurgen von Hagen (eds) *Budget Institutions and Fiscal Outcomes* Chicago ; NBER-University of Chicago Press.

Joskow, Paul (1974) "Inflation and Environmental Concern: Structural Change in the Process of Public Utility Price Regulation", *Journal of Law and Economics*, pp. 291-328.

Krehbiel, Keith. (1991) *Information and Legislative Organization*. Ann Arbor, University of Michigan Press.

Llach, Juan Jose (1997) *Otro siglo, otra Argentina*. Ariel Sociedad Económica.

Moe, Terry (1990). "The politics of structural choice: Toward a theory of public bureaucracy", in Williamson, Oliver (Ed.). *Organization Theory:*

From Chester Barnard to the Present and Beyond. New York, Oxford University Press.

Molinelli, Guillermo (1991) *Presidentes y Congresos en Argentina : Mitos y Realidades*. Grupo Editorial Latinoamericano, Buenos Aires.

Mondino, G., F. Sturzenegger and M. Tommasi (1996) "Recurrent High Inflation and Stabilization : A Dynamic Game," *International Economic Review* 37(4), November : 981-996.

North, Douglass (1990a) *Institutions, Institutional Change and Economic Performance*. Cambridge University Press.

North, Douglass (1990b) "A Transaction-Cost Theory of Politics" in *Journal of Theoretical Politics* 2(4) October, 355-67. Traducido al castellano en Saiegh y Tommasi, compiladores (1998) *La Nueva Economía Política: Racionalidad e Instituciones* Buenos Aires: EUDEBA.

Olson, Mancur (1965) *The Logic of Collective Action*. New Haven, Yale University Press.

Olson, Mancur (1982) "The Logic of Collective Action" Chapter 2 in *The Rise and Decline of Nations*, New Haven: Yale University Press. Traducido al castellano en Saiegh y Tommasi, compiladores (1998) *La Nueva Economía Política: Racionalidad e Instituciones* Buenos Aires: EUDEBA.

Painter, Martin (1998) *Collaborative Federalism: Economic Reform in Australia in the 1990's.* Cambridge University Press.

Palanza, V. and G. Sin-Silva (1998) "Apuntes sobre la historia política de la Coparticipación Federal de Impuestos en la Argentina", Mimeo, CEDI.

Panosyan, Mónica and Matteo Goretti. (1986) "El personal parlamentario frente a un contexto político cambiante", in *Dos Ensayos de Ciencia Política*. Premio Coca-Cola en las Artes y las Ciencias.

Piffano, Horacio (1998) "La asignación de potestades fiscales en el federalismo argentino" Working Paper, Centro de Estudios para el Desarrollo Institucional (CEDI).

Porto, Alberto and Pablo Sanguinetti (1996) "Political Determinants of

Regional Redistribution in a Federation : Evidence From Argentina" in *52th Congress of the International Institute of Public Finance* Tel Aviv.

Porto, Alberto. (1990). *Federalismo Fiscal: El Caso Argentino.* Buenos Aires, Instituto Torcuato Di Tella, Editorial Tesis.

Robinson, James (1998) "Inefficient Redistribution" Seminario del Departamento de Economía, Universidad de San Andrés, October.

Saiegh, Sebastián M. (1997) "Democracia representativa y eficacia gubernamental: el caso argentino", Working Paper, N° 4. *Universidad de San Andrés.* Buenos Aires.

Saiegh, Sebastian and Mariano Tommasi (1998) "Argentina's Federal Fiscal Institutions: A case study in the transaction-cost theory of politics". Paper prepared for the Conference "Modernización y Desarrollo Institucional en la Argentina", *PNUD*, Buenos Aires.

Sanguinetti, Pablo (1994) "Intergovernmental Transfers and Public Sector Expenditures : A Game Theoretic Approach" *Estudios de Economía* 21(2), December. Universidad de Chile.

Sanguinetti, P. and M. Tommasi (1998) "Intergovernmental Transfers and Fiscal Behavior: Insurance versus Aggregate Discipine," Mimeo.

Sawers, Larry. 1996. *The Other Argentina: The Interior and National Development*. Boulder, CO: Westview Press.

Schwartz, G. and C. Liuksila (1997) "Argentina" in T. Ter-Minassian (ed.) *Fiscal Federalism in Theory and Practice* Washington : International Monetary Fund.

Shumway, Nicolas (1991) *The Invention of Argentina*, Berkeley: California University Press.

Stiglitz, Joseph (1997). *Whiter Socialism?.* Cambridge: MIT Press.

Sturzenegger F. and M. Tommasi (1994) "The Distribution of Political Power, the Costs of Rent-Seeking, and Economic Growth" *Economic Inquiry* Vol XXXII, April, 236-248.

Tabellini, Guido (1986) "Money, Debts and Deficits in a Dynamic Game" *Journal of Economic Dynamics and Control* 10, 427-442.

Tanzi, Vito (1996) “Fiscal Federalism and Decentralization : A Review of Some Efficiency and Macroeconomic Aspects,” in *Annual World Bank Conference on Development Economics*. Washington : World Bank.

Ter-Minassian, Teresa (1997) *Fiscal Federalism in Theory and Practice* Washington : International Monetary Fund.

Tommasi, Mariano (1983) “Inflation and Relative Prices : Evidence from Argentina” in Sheshinski and Weiss (eds.) *Optimal Pricing, Inflation, and the Cost of Price Adjustment* MIT Press.

Tommasi, Mariano (1998) “On High Inflation and the Allocation of Resources” *Journal of Monetary Economics*, forthcoming.

Tommasi, Mariano and Velasco, Andrés (1996) “Where Are We in the Political Economy of Reform ?” *Journal of Policy Reform* 1 : 187-238.

Weingast, Barry (1995) “The Economic Role of Political Institutions: Market-Preserving Federalism and Economic Development”, *The Journal of Law, Economics and Organization*, Vol. 11, No. 1

Weingast, Barry (1997) “The Political Foundations of Democracy and the Rule of Law”, *American Political Science Review,* Vol. 91.

Weingast, Barry R., and William J. Marshall (1988) “The Industrial Organization of Congress; or, Why Legislatures, like Firms, are Not Organized as Markets” *Journal of Political Economy*, Vol. 96, No. 1. Traducido al castellano en Saiegh y Tommasi, compiladores (1998) *La Nueva Economía Política: Racionalidad e Instituciones* Buenos Aires: EUDEBA.

Williamson, Oliver (1996) “The Politics and Economics of Redistribution and Inefficiency” *Greek Economic Review* (1995), reprinted as chapter 8 of his *The Mechanisms of Governance*. Oxford University Press.

Wittman, Donald (1989) “Why Democracies Produce Efficient Results?” *Journal of Political Economy* 97 : 1395-424.

Wittman, Donald (1995) *The Myth of Democratic Failure. Why Political Institutions are Efficient*. University of Chicago Press.

World Bank (1990) “Argentina: Provincial government Finance Study”, Report 8176-AR.

World Bank (1992) "Argentina: Towards a New Federalism" Report Nº 10612-AR.

World Bank (1996) "Argentina : Provincial Finances Study : Selected Issues in Fiscal Federalism". Report Nº 15487-AR.