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Decentralization, Fiscal Discipline in Sub-National Governments And the Bailout Problem: The Case of Argentina

by

Juan Pablo Nicolini*
Josefina Posadas**
Juan Sanguinetti***
Pablo Sanguinetti*
Mariano Tommasi§

*Universidad Torcuato di Tella
**Universidad Nacional de la Plata
***Secretaría de Programación Económica y Regional, Ministerio de Economía
§ Universidad de San Andrés and Centro de Estudios para el Desarrollo Institucional

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Abstract

This paper examines the determinants of fiscal performance of sub-national governments in Argentina. This will be done through analysis and examination of the overall regime of incentives, through an analysis of salient episodes of "bailout" and through cross-sectional empirical analysis. The bailout episodes to be analyzed will include mostly those that occurred in the relationship between the national and provincial governments. Of primary interest will be the process that caused the crises and how both the provinces and the federal government reacted, with an emphasis on the incentives and constraints each faced. The paper will also try to explain the actual form that the bailout takes. The empirical analysis will emphasize those determinants of bailout related to the institutional design of intergovernmental fiscal institutions. Thus, the study will have direct implications regarding the strengths and weaknesses of the current institutional framework in generating sound fiscal behavior by the different levels of government.

1. Introduction

Argentina is a democratic country with a federal system and a tradition since pre-independence times of strong provincial governments and politics. The country is relatively well endowed, both in terms of natural and human resources, and has always been considered a candidate for strong, sustained growth and development. Nevertheless, this potential gone largely unrealized due to a very peculiar politico-economic history. That history has been, in part, related to conflict over the distribution of fiscal resources, with the different political jurisdictions as key actors. In this respect, and within the context of the various reforms already taken in other areas, the reform of the country's federal fiscal (and political) institutions is likely to be a key determinant of whether Argentina will be able to embark on a sustained path of economic and social development.

Argentina is divided into 24 autonomous political jurisdictions consisting of 23 provinces and the City of Buenos Aires. With approximately 50 percent of total public spending occurring at the sub-national level, it is the most decentralized country in Latin America. At the same time, the most important taxes are collected at the national level, which implies a significant degree of vertical imbalance.

In Argentina's federal system, the political autonomy of sub-national governments is quite high. Furthermore, provincial politics is an important building block of national politics, due to the nature of the electoral system (Jones, 1995 and 1997). Thus, a high degree of fiscal decentralization (at least on the expenditure side) coupled with high institutional and political autonomy and heterogeneity makes Argentina a very appealing case in which to study the interplay of institutional and political factors in the working of federal finances.

Provincial fiscal decisions have always had a significant impact on overall public sector finances. In the 1980s the provinces were responsible for a considerable part of the consolidated public sector deficit. Over the last decade a number of measures have been taken to reduce sub-national governments' latitude for engaging in unsustainable fiscal behavior. Yet, the situation is far from being resolved, and these governments' future performance remains crucial for the consolidation of macroeconomic stability.

The indicated high degree of vertical fiscal imbalance has been addressed with a complicated system of intergovernmental transfers, among which the most important is the tax-sharing regime (Coparticipación Federal de Impuestos). As will be discussed below, the underlying legal framework of the "coparticipation" system has been repeatedly altered, and it has been the source of numerous conflicts. These periodic modifications have led to the current situation in which the whole system has reached a high level of complexity. As many observers have shown, this intricate scheme (christened the "fiscal labyrinth") does not correspond with any economic criteria, and it provides all sorts of perverse incentives for the provincial leaders to overexploit the common pool of national taxation. One of the implications is that, oftentimes, provincial authorities behave as if they did not face a hard budget constraint, anticipating "ex-post" assistance from national sources.

The aim of this study is to look into the determinants of fiscal performance of sub-national governments in Argentina. This will be done through analysis and examination of the overall regime of incentives, through an analysis of salient episodes of "bailout" and through cross-sectional empirical analysis.

The bailout episodes to be analyzed will include mostly those that occurred in the relationship between the national and provincial governments.[1] Of primary interest will be the process that caused the crises and how both the provinces and the federal government reacted, with an emphasis on the incentives and constraints each faced. The paper will also try to explain the actual form that the bailout takes. Transfers, as mentioned above, are just one form; others include loans, anticipation of taxes, guarantees, transfers of expenditure responsibilities, and assumption of liabilities of the sub-national government.

The empirical analysis will emphasize those determinants of bailout related to the institutional design of intergovernmental fiscal institutions. Thus, the study will have direct implications regarding the strengths and weaknesses of the current institutional framework in generating sound fiscal behavior by the different levels of government.

The rest of the study is organized as follows. Section 2 introduces some definitions and the institutional context that has shaped the working of fiscal federalism in Argentina. Section 3 describes the bailout episodes to be investigated. Section 4 presents some general conclusions and ideas for future research.

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[1] The usage in Argentina, followed throughout this paper, is to refer to the federal government as "the national government."

2. Bailout: Some Definitions and the Institutional Features of Fiscal Federalism in Argentina

Before a detailed discussion of bailout episodes begins, it is useful to make explicit what is meant by bailout and its possible determinants. Also, an understating of the bailout episodes will be enhanced by the analysis of some basic features of the working of fiscal federalism in Argentina which will be common to all the episodes to be analyzed in Section 3.

2.1 Bailout: Definition and Determinants

Bailouts are situations where a federal government, by assuming an obligation of a sub-national government, deviates from an explicit or implicit ex-ante rule, taking an ex-post action that was not contractually pre-established. If this ex-post incentive to deviate is anticipated by the sub-national government, the latter would be expected to engage in opportunistic behavior. Such behavior will be reflected in unsustainable fiscal behavior that increases the jurisdiction's exposure to a crisis in the event of an exogenous shock. Two aspects of this definition of bailout deserve emphasis: first, deviation from a rule, and second, opportunistic behavior.

A case may occur in which there is a deviation from a rule without opportunistic behavior—for example, the case in which a provincial obligation (i.e., debt) with the central government is rescheduled or condoned because of an exogenous event such as a natural disaster. This case can be interpreted as an optimal response by the system given the impossibility of writing down fully contingent contracts. This episode is in some sense part of the implicit contract established among the various levels of governments; it is efficient and it cannot be interpreted as a bailout.

At the other end of the spectrum are cases in which sub-national governments behave opportunistically but as a consequence of an ex-ante-established rule that distorts its incentives on a permanent basis. An example of such a rule is a regime of transfers that distributes resources taking into account the number of public employees in each jurisdiction. This cannot be considered a bailout, as irresponsible fiscal behavior is part of the current system of rules governing the relationship among the various levels of governments.

Of course, between these two extremes there may be situations where the identification of bailouts is not as clear-cut. This, in fact, occurs in many real-world cases, as information problems make it impossible to identify where opportunistic behavior is involved. This is because sub-national actions, such as tax effort, cannot be directly observed in many circumstances, which in turn makes it difficult to distinguish readily between responses to exogenous events and instances of fiscal misconduct. In fact, this difficulty is part of the problem and explains why in practice bailouts occur. In the episodes described in Section 3 these issues will have some importance.

The above analysis provides a definition of bailout that will be applied to the cases in the next section. A prior regarding the determinants of bailout is based on the discussion above, though with extensions relevant to the case of Argentina.

One key factor causing the federal government's ex-post incentives to deviate from those ex-ante is the adjustment cost faced by the lower government in times of distress. In a situation where the central government cares about the welfare of the population, this factor will affect the authorities' incentives to intervene. These adjustment costs will, in turn, depend on the degree of flexibility that the sub-national government has to change taxes and/or expenditures. As suggested by Eichengreen and Von Hagen (1996), a key explanatory variable in this respect is the degree of autonomy that jurisdictions have to set and change tax rates or create taxes, as well as the degree of vertical imbalance or the proportion of expenditures financed out of local revenues.

Externalities represent another factor affecting the ex-post incentives of the federal government to intervene. Wildasin (1997) emphasizes the negative externalities that a fiscal crisis in one jurisdiction can cause in others. For example, if a province fails to pay back in time a debt obligation in the international market, it may induce an increase in the cost of indebtedness to the rest of the country. This externality argument lead to a "too big to fail" prediction where a jurisdiction's likelihood of being bailed out is determined by its size, as this will relate to the magnitude of the externality. This hypothesis will be examined in the next section, especially in an episode related to the Province of Cordoba.

Another factor that affects the ex-post incentives of the federal government is the political cost/benefit the government receives by intervening at the sub-national level. In this regard, election times could make a federal government more sensitive to pressures from local jurisdiction especially when the jurisdiction is important in terms of votes. The political costs that the federal government may endure because of failing to help the jurisdiction will also depend on whether the fiscal problems could in part be associated with actions taken by the central authorities. In these situations the federal government's incentives to intervene are expected to be greater. One such occurs when the federal government is actually in charge of sub-national (provincial) affairs because of a political and institutional federal intervention. Other situations include those in which the jurisdiction's fiscal problems are in part a consequence of national policy. In this sense some of the episodes analyzed below have occurred in the context of policy changes originating at the national level (i.e., the reform of the pension system), or shocks that affected the economy as a whole (the crises generated in 1985 by the Mexican devaluation). It can thus be argued that the local economy's ability to adjust to such shocks depends on National economic policy.

Finally, within the political economy considerations, it is important to study how the central authorities' incentives are affected by whether sub-national authorities belong to the same party as the federal government. In general, the effect of this variable could go either way depending on whether party discipline exists. Thus, in the case where there is a high degree of party discipline, the federal government would not need to "buy" that support (votes) from jurisdictions run by its own party in order to obtain support for its initiatives. Instead, the federal government may need to do so with jurisdictions run by other political parties. There is some evidence for Argentina of a relatively high level of party discipline (see Jones, 1997). In addition, Jones, Sanguinetti and Tommasi (1999) found that party discipline has provided a check on expansive fiscal policies at the provincial level. The role of this political variable, however, has not been investigated in bailout events, and the next section will attempt to do, particularly in regard to National Treasury Contributions (NTCs).

Whether the federal government's ex-post incentives to intervene will actually precipitate a bailout depends on institutional factors that make the federal government more or less sensitive to those ex-post pressures. It also depends on the presence of rules at the local level that, given the set of incentives facing the federal government, causes the local jurisdiction to take more or less advantage of these opportunities.

Some federal institutions, even though not explicitly designed to address intergovernmental relations, can operate as an effective brake to the ex-post accommodation of local jurisdictions' financial needs. Such institutions include fiscal rules on debts or deficits, restrictions on monetary financing, independent central banks, and currency-board arrangements.

As will be seen in the next section, this has been a key factor in the case of Argentina after the convertibility plan was launched.

Also, of course, provincial-level institutions will reduce (or exacerbate) the incentives for local authorities to misbehave. These institutions include balanced-budget laws at the local level (very common in other countries such as the USA), borrowing limits, and independent audit agencies.[2] The next section investigates whether any of these institutional variables has exerted a significant effect in the provinces that have experienced bailouts.

2.2 Institutional Features of the Working of Fiscal Federalism in Argentina

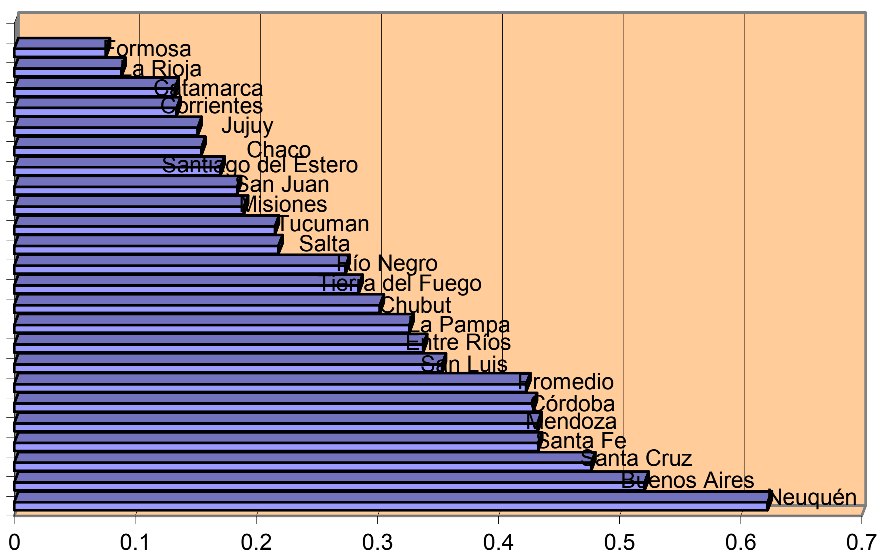
Certain basic institutional features of the working of fiscal federalism in Argentina bear direct implications for the analysis of bailouts and will play a key role in some of the episodes presented in Section 3. Thus, this sub-section reviews these features, describing the division of expenditure and tax responsibilities between the national and provincial jurisdictions and indicating the resulting level of fiscal vertical imbalance. The sub-section also briefly analyzes how this vertical imbalance has been addressed through intergovernmental transfers. In addition, this sub-section briefly describes some provincial fiscal institutions, such as the existence of formal limits for provincial borrowing, the regulation of provincial transfers going to municipalities, the use of federal transfers as guarantees in provincial loans operations and the legal status of provincial state banks.

As noted above, Argentina is one of the most decentralized countries in Latin America in terms of public spending, with approximately 50 percent of the total occurring at the sub-national level (Inter-American Development Bank, 1997).[3] The revenue side presents the inverse picture, with most important taxes collected at the national level. This leads to a high degree of vertical fiscal imbalance. From 1985 to 1995, an average of 65 percent of provincial expenditures were financed through transfers from a common pool of national taxes, with only 35 percent financed from direct own-provincial revenues. As Figure 1 shows, there is a high variation around this 35 percent (weighted) average.[4] Ten provinces finance less than 15 percent (and sixteen provinces less than 20 percent) of their spending with their own resources. Most of the transfers coming

[2] Jones, Sanguinetti and Tommasi (1999) test the effect of these institutional features on provincial expenditures.
[3] If the pension system is excluded, provincial and municipal spending in 1997 was twice as large as spending by the federal government (Piffano, 1998).

from the federal government are carried out on behalf of a delegation of tax authority from the provinces. As a consequence the use of 71 percent of the transfers is left to the discretion of provincial governments, while the remaining 29 percent of the transfers are earmarked for specific activities.

Figure 1: Vertical Fiscal Imbalance, 1997



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

The Argentine Constitution establishes that the federal government will use tariffs on foreign trade to finance its expenditures, while provinces will finance themselves through taxes on the production and 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 (see Porto and Sanguinetti, 1993). Argentina's first national tax-sharing agreement ("Ley de Coparticipación Federal de Impuestos") dates from 1935,[5] and new tax laws have periodically been written to regulate this distribution. The current law, passed in 1988, establishes that the federal government retains 42 percent of these taxes, while 57 percent is distributed among the provinces. The remaining 1 percent set aside "to finance unforeseen crises in the provinces."[6] The law also establishes the percentages of the secondary distribution. Several supplementary laws regulate the distribution and destination of some specific taxes that finance a set of predetermined activities.

Some of the main features of the 1988 coparticipation scheme prevail today, even though there have been numerous changes and adjustments. One of the main changes was to establish "precoparticipations," that is, to redirect parts of the tax revenue from the tax-sharing pool towards other purposes. (For instance, in 1992 and 1993 the national government was able to reduce the amount to be shared with the provinces by 15 percent 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 the World Bank (1996), the tax-sharing system has reached a high degree of complexity that does not correspond to any economic criteria.

The high degree of vertical imbalance, as well as the lack of transparency and discretionary character of some of the transfers going to provinces, have had visible consequences for the fiscal behavior of some jurisdictions. In particular, the system has

[5] 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").

generated a moral hazard problem that undermines the incentives of lower units to behave in fiscally responsible ways. Jones, Sanguinetti and Tommasi (1997 and 1999) provide (indirect) empirical evidence on these "common pool" incentive effects induced by the coparticipation regime. They show: (1) that the larger provinces "internalize" more the federal tax cost of their spending; (2) that the provinces that are more favored by the "secondary coparticipation" (beyond the mere devolution of the taxes collected by the national government in the province) are more inclined to fiscal profligacy; and (3) that the national executive is able to discipline governors from the same party into internalizing some of these costs.[7]

Within Argentina's federal structure all levels of government are generally permitted to borrow both domestically and abroad. During the 1980s both levels of government borrowed extensively, reflecting the weak fiscal management of the period. In addition, both accumulated sizable arrears on wages and pensions, payments to suppliers, and debt service.[8] In many provinces, the provincial Constitution imposes some restrictions on the borrowing ability of the government (Sanguinetti and Tommasi, 1997). In some jurisdictions an extraordinary legislative majority is required to approve new debt, and further restrictions are imposed on the level of indebtedness and on the use of debt. Nevertheless, in most provinces, these restrictions are very mild, and when they specify quantitative limitations they are rarely binding. It is not surprising, then, to find that borrowing limits had no significant effect on the fiscal behavior of provinces (Jones, Sanguinetti and Tommasi, 1999).

The situation was further complicated by the legal status of provincial state banks, which in most provinces were very dependent on the provincial executive; in practice they served as captive sources of financing. In this sense, the provincial government banks were considered to be akin to the central bank of each province: they provided funds to the provincial governments upon demand and, in turn, received rediscounts from the Central Bank of Argentina.[9] Given their portfolio of bad assets (resulting to a significant extent from lending to provincial governments), provincial banks were among the prime candidates for restructuring and

[6] In practice, these funds, called National Treasury Contributions (NTCs), are distributed in a discretionary way by the National Executive, through the Ministry of the Interior (the most "political" of ministries).

[7] Also, in a situation of large vertical fiscal imbalances (as well as other considerations to be discuseed below), the workings of local democracy do not induce prudent fiscal behavior by local authorities. Saront (1998) shows that (as in the United, according to Peltzman 1992) voters penalize federal spending but (unlike the US case) they *reward* local spending.

[8] During the 1990s the federal government tried to consolidate those arrears; the clearance operation added up to a total of 9 percent of 1995 GDP.

consolidation, a process that was accelerated after the 1995 Tequila crises induced a run on most provincial financial institutions. As of mid-1998, only six provincial banks remained in the hands of the provincial public sectors.

A key change in the economic context that has had noticeable effects in the behavior of provincial (and of course national) finances has been the strong commitment to inflation stabilization of the federal government since 1991. By establishing a currency board arrangement, the Convertibility Law of March 1991 ended inflationary Central Bank financing of public sector deficits. Before this period the federal government was able to accommodate expansion in provincial expenditures through inflationary financing. It did this through two channels. The first consisted of loans from the Central Bank made to provincial banks. The second involved increasing federal government outlays, in turn motivated by increasing transfers to provincial jurisdictions, which had to be financed by monetary expansion.

It might be expected that the hardening of the central government's budget constraint brought about by the convertibility law would reduce provincial governments' incentives to misbehave, as they would anticipate that federal authorities face strong restrictions to ex-post accommodate provincial fiscal deficits. Jones, Sanguinetti and Tommasi (1999) empirically investigated this hypothesis and found some evidence that after convertibility provincial finances were indeed on average less expansive. In particular, they found a strong positive effect on provincial revenues per capita and a negative (though more modest) effect on provincial expenditures.

Still, while recent changes have reduced the central authorities' leeway for carrying out extraordinary financing operations, as the next section will discuss, they have not been sufficient to eliminate them completely. As indicated above, there are almost no formal limitations on domestic currency borrowing operations, and provincial governments have continued the practice of pledging future coparticipation receipts as collateral for borrowing from commercial banks. In addition, they have sometimes developed alternative sources of financing. For instance, when faced with a cash crisis in 1995, several provinces issued "coupons" in lieu of wage payments

[9] For example, those rediscounts amounted to over 2 percent of annual provincial spending during 1983-1990.

3. Bailout Episodes

This section identifies and analyzes several bailout episodes, concentrating on those occurring at the federal-provincial level.[10] The episodes presented below are in general not differentiated by the province involved, or when the bailout occurred, but rather on the type of instrument or institutional set-up used to help the jurisdiction. If money is viewed as fungible (both economically and politically), however, the program or institutional set-up of each particular bailout should matter less than the total amount of money transferred from the center to a given jurisdiction in any particular period. Still, given the uncertainty or lack of information regarding the ultimate motives that guide fiscal decision of both federal and provincial authorities, it is useful to concentrate on the nature of the mechanisms whereby funds are transferred across jurisdictions; this focus implicitly reveal the incentives that were critical in motivating federal intervention. Furthermore, money is not totally fungible (especially in political terms),[11] so that to a certain extent the classification of episodes by type of institutional set-up used to help a given jurisdictions will not undermine the analysis.

3.1 The Nationalization of the Provincial Pension Systems

One of the main sources of deficits in provincial finances was the state provincial pension system. These systems generated large deficits due to poor mechanisms for collecting revenues and to generous benefit payments. Between 1994 and 1996 the National government took direct responsibility for the operation of the provincial pension systems in eleven jurisdictions, merging them with the national system.[12] As a consequence, the national government had to assume a significant fiscal cost given the disequilibria present in those regimes. The provincial pension systems are described below, and subsequently analyzed is the economic and institutional

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[10] While this paper concentrates on "bailouts" to subnational governments, in Argentina other entities have also received sizable bailouts. The most recent case is the bailout extended to Unión Obrera Metalúrgica. The Steel Workers Union has been very important in the history of Peronism and its leader, Lorenzo Miguel, had been opposed to President Menem's shift towards free-market policies; yet, in an act of reconciliation, the National Government assumed the union's obligations undertaken prior to July 31, 1989; these included arrears with suppliers amounting to $65 million. The administrative decision was taken by the Jefatura de Gabinete. A similar case is the bailout to the National Institute of Social Services for the Elderly (INSSJyP) in 1997. Through decree 197/97 the Nation assumes all its liabilities. The decree does not specify the amount, although it establishes that those debts will be serviced through a budget allocation that cannot exceed $100 million per year. Also, the National Government provided the Institute $220,000 loan through the National Health Insurance Administration (ANSSAL).

[11] See, for instance Iaryckzower, Saiegh and Tommasi (1999) and Coate and Morris (1995).

[12] For a historical analysis of the whole pension system in Argentina, see Fiscella (1995).

context within which the national government took responsibility for provincial social security. The subsection closes with a discussion of how the total costs, including those of political nature, were shared among the various actors and the extent to which the transfer of local government expenditures responsibility to the national authorities constituted a bailout.

The Main Characteristics of the Provincial Pensions Systems

Up to 1994 all provinces administered their own system of social security for provincial and municipal public workers, and the personnel of provincial public companies, provincial banks and other decentralized organisms. In some jurisdictions there were also special regimes for housewives (Catamarca, Entre Rios and La Rioja) and "pensiones graciables" in Buenos Aires and La Rioja.[13]

These provincial regimes were organized as pay-as-you-go systems with state guarantees (like the National regime). Thus, pension payments were financed with the contributions of active workers and those of provincial and municipal government employers. The provincial regimes granted three types of benefits: ordinary retirement, disability retirement, and death benefits.

In general, the provincial regimes had very generous eligibility conditions. As shown in Table 1, in most jurisdictions the minimum age was less than 60 years both for men and women. Besides, in the case of provincial special pension regimes like those of the police, teachers and justice there are specific (and even more generous) standards regarding age and other requirements.[14]

[13] "Pensiones graciables" are extraordinary pensions that can be granted by the provincial executive independently of the individual's contributions to the system. They pay 70 percent of the minimum ordinary pension.

[14] In the case of Entre Rios the teachers' pension regime does not state a minimum age for retirement, but rather requires only 25 years of active work. This generated a great quantity of "young pensioners," since in this jurisdiction most public employees work in education (Novedades Economicas, 1993).

Table 1. Provincial Pension Systems: Legal Requirements

Province	General Regime: Individual Contribution (in %)	General Regime: Employers Contribution (in %)	General Regime: Age requirenments: Minimum age men	General Regime: Age requirenments: Minimum age women	General Regime: Years of service and contribution: years of service	General Regime: Years of service and contribution: years of contribution
Buenos Aires	14	12	60	60	35	22
Catamarca	SIJP	SIJP	SIJP	SIJP	SIJP	SIJP
Córdoba	14.5	20	58	55	30	30
Corrientes	18.5	18.5	65	60	30	30
Chaco	11/14	16/18	60	60	30	30
Chubut	10	14	55	55	30	16
Entre Ríos	16	16	62	57	30	30
Formosa	7	10	55	50	s/d	s/d
Jujuy	12	14	55	60	25/30	25
La Pampa	10	17	60	55	30	20
La Rioja	17/20	15.5	60	55	30	20
Mendoza	13	16	65	62	30	30
Misiones	11	13	60	55	30	30
Neuquén	7	5	s/d	s/d	s/d	s/d
Río negro	11	21	60	60	30	30
Salta	15	18	60	58	30	30
San Juan	15	18	63	58	30	30
San Luis	15	12	65	60	30	27
Santa Cruz	12	10	s/d	s/d	s/d	s/d
Santa Fe	13	12.2	60	55	30	30
Sgo. Del Estero	SIJP	SIJP	SIJP	SIJP	SIJP	SIJP
Tucumán	12	14	55	51	30	30
Tierra del Fuego	13	7.5	55	50	25	25
MCBA	SIJP	SIJP	SIJP	SIJP	SIJP	SIJP
SIJP (Nacional)	11	16	65	60	30	30

Province	Teachers Regime: Individual Contribution (in %)	Teachers Regime: Employers Contribution (in %)	Teachers Regime: Age requirenments: Minimum age men	Teachers Regime: Age requirenments: Minimum age women	Teachers Regime: Years of service and contribution: years of service	Teachers Regime: Years of service and contribution: years of contributio
Buenos Aires	16	12	50	50	30	22
Catamarca	SIJP	SIJP	SIJP	SIJP	SIJP	SIJP
Córdoba	14.5	22	55	50	25	25
Corrientes	18.5	18.5	65	60	30	30
Chaco	14	18	no minimum	no minimum	30	30
Chubut	12	14	no minimum	no minimum	30	16
Entre Ríos	13	8.5	57	52	25	25
Formosa	s/d	s/d	s/d	s/d	s/d	s/d
Jujuy	14	16	no minimum	no minimum	30	20
La Pampa	12	19	57	57	35	35
La Rioja	17	19	no minimum	no minimum	30	25
Mendoza	16	19	52	52	25	25
Misiones	13	16	55	52	30	30
Neuquén	s/d	s/d	s/d	s/d	s/d	s/d
Río negro	13	23	52	52	30	30
Salta	16	19	55	53	30	28
San Juan	18	18	s/d	s/d	s/d	s/d
San Luis	17	17	55	52	25	15
Santa Cruz	14	10	s/d	s/d	s/d	s/d
Santa Fe	13	12.2	50	50	30	30
Sgo. Del Estero	SIJP	SIJP	SIJP	SIJP	SIJP	SIJP
Tucumán	12	14	55	50	30	25
Tierra del Fuego	13	7.5	43	43	25	25
MCBA	SIJP	SIJP	SIJP	SIJP	SIJP	SIJP
SIJP (Nacional)						

Province	Police Regime: Individual Contribution (in %)	Police Regime: Employers Contribution (in %)	Police Regime: Age requirements: Minimum age men	Police Regime: Age requirements: Minimum age women	Police Regime: Years of s contr: years of service
Buenos Aires	18	20	no minimum	no minimum	no minimum
Catamarca	13	18	50	50	22/25
Córdoba	17	23	55/58	53/56	25/30
Corrientes	18.5	18.5	50/55	50/55	s/d
Chaco	14	18	42	42	17
Chubut	14	18	no minimum	no minimum	25/30
Entre Ríos	10	17	43/46	43/46	25/27
Formosa	15	21	s/d	s/d	s/d
Jujuy	14	16	no minimum	no minimum	no minimum
La Pampa	14	25	no minimum	no minimum	25/30
La Rioja	17	23	53/55	48/50	25/30
Mendoza	16	23	50	55	30/35
Misiones	15	16	45/58	43/56	20/36
Neuquén	s/d	s/d	s/d	s/d	s/d
Río negro	13	25	no minimum	no minimum	20
Salta	19	20	no minimum	no minimum	25/30
San Juan	16	18	60	55	30
San Luis	17	20	no minimum	no minimum	30
Santa Cruz	16	18	s/d	s/d	s/d
Santa Fe	15	21	no minimum	no minimum	no minimum
Sgo. Del Estero	18.5	18.5	50	48	20/25
Tucumán	16	20	45/58	43/56	25/30
Tierra del Fuego	s/d	s/d	s/d	s/d	s/d
MCBA					
SIJP (Nacional)					

Source: Secretaría de Programación Económica y Regional

Additionally, some jurisdictions (for example, Cordoba and Rio Negro) permitted early retirement for a limited time, allowing access to the pension benefits with a significant reduction in the age requirement and other legal requisites, with the objective of reducing personnel.

These generous conditions, in particular early retirement, implied, together with demography, a very low ratio of active to inactive workers—a key variable determining the sustainability of a pay-as-you-go system. There is some evidence that this ratio has been declining in recent years, though historical series for this indicator are not available. Table 2 shows the value for the ratio of passive and active workers in 1994 for 17 provinces. For some jurisdictions this ratio is quite low, though still higher than that at the national level.

Another factor that contributed to generate deterioration in the financial situation of the provincial social security system was the relatively high level of benefits in relation to the average wage of the active workers. As we see in Table 2, for example, in Misiones, Entre Rios and Formosa the average pension payment was even larger than the average wage in the Provincial and Municipal public sector.

Table 2. Provincial Pension Systems: Economic and Finance Indicators, 1994

	pension payments	average wage	active / passive	pension deficit (1)	
	in pesos	in pesos	ratio	in million of pesos	as % of PE (2)
Santiago del Estero	769.1	s/d	s/d	45.2	65.5%
Catamarca	617.4	s/d	s/d	25.2	45.8%
GCBA (3)	582	628	1.83	193.0	43.8%
Jujuy	795.6	879.6	3.39	45.1	34.4%
Santa Cruz	s/d	s/d	s/d	25.7	32.9%
San Juan	836.7	946.7	2.01	64.7	30.0%
Santa Fe	732.7	955.4	2.39	138.6	29.2%
Tucuman	698.4	787	2.23	51.7	21.3%
San Luis	607	990.9	2.22	16.3	20.6%
Entre Rios	971.3	894.5	3.03	54.2	19.9%
Chubut	s/d	s/d	s/d	12.7	18.4%
Corrientes	708.9	722	2.68	31.9	18.3%
Buenos Aires	581.2	853	2.64	227.3	16.9%
Mendoza	664.4	1072.6	2.42	36.9	13.9%
La Pampa	s/d	s/d	s/d	6.4	12.5%
La Rioja	814.6	922.6	1.77	15.2	12.5%
Salta	733.5	857	2.63	21.1	10.7%
Cordoba	1016.6	1088.7	2.42	67.9	8.6%
Chaco	850.8	929.9	3.2	14.4	8.1%
Misiones	875.6	787.3	5.55	4.5	3.8%
Formosa	798.1	744.6	4.85	2.1	2.2%

Table 2., continued

	pension payments in pesos	average wage in pesos	active / passive ratio	pension deficit (1) in million of pesos	as % of PE (2)
Rio Negro	1029.1	1101.6	3.34	3.1	1.9%
Neuquen	s/d	s/d	s/d	1.1	1.8%
Tierra del Fuego	s/d	s/d	s/d	0.0	0.0%
Total	s/d	901.8	2.65	1104.3	19.3%
National Regime	299.2	s/d	1.35		

(1) Budget transfers to social security agencies.
(2) PE: Pension expenditure.
(3) 1993 data.
Source: Authors' calculations based on data from the Secretaría de Programación Económica y Regional.

In part as a consequence of the above factors, since the middle of the 1980s these provincial regimes (as well as the national system) entered into a serious crisis. As contributions became insufficient to finance benefit levels, the regimes began to show important budgetary imbalances. For the 24 jurisdictions taken together, and using the transfers that the provincial treasuries had to make to the provincial pension systems as an estimator, the increase in the deficits between 1990 and 1994 was around 54 percent, from $596 million in 1990 to approximately $1,100 million in 1994. These transfers were of about the same magnitude in 1995.

A review of the provincial pensions systems by province (Table 2) shows that in 1994, the year before the transfers of the pension system started, the situation varied among provinces. In terms of pension benefit expenditures, the most pressing imbalances belonged to Santiago del Estero (65 percent of expenditures), Catamarca (45.8 percent), the City of Buenos Aires (43.8 percent) and Jujuy (34.4 percent) .

In the context of that critical financial situation, the Argentine economy was seriously affected by the Tequila shock produced by the Mexican devaluation of mid-December 1994. The strong financing restriction faced by many provincial jurisdictions during 1995 seriously limited the provincial treasuries ability to allocate special funds for covering deficits in provincial pension systems. Significant delays in benefit payments resulted. One of the most dramatic cases was the province of Rio Negro, eight months in arrears on its payments to retirees in mid-1995. Other jurisdictions with important delays in pension payments included Tucuman, Jujuy, Salta and San Juan.

These delays helped to produce an atmosphere favorable for the transfer of provincial regimes to the national level, though an understandable distrust existed among public-sector employee unions, though most retirees supported the move. Some of the newly elected governors that were appointed in 1995 took advantage of the situation and accepted the national authorities' offer to transfer the pension system.

The Institutional Setting and Fiscal Costs Involved in the Transfer of the Pension Systems

As noted above, in August of 1993, the national government and the provinces signed a second Fiscal Pact called the Federal Pact for Employment, Production and Growth ("Pacto Fiscal para el Empleo, la Producción y el Crecimiento"). With this agreement the national government sought to introduce substantial reforms at the provincial level. On one hand, in an attempt to improve provincial tax systems, the Government negotiated the elimination of distortionary provincial taxes; in particular, it pushed for the substitution of the tax on gross revenues by a provincial sales tax.[15] On the other hand, the Government also aimed at achieving privatization and deregulation of economic activities under the control of the provincial administrations. The main incentive that the national authorities offered was the transfer of provincial social security systems that were already representing a heavy load for provincial finances (interestingly, the wording used in the agreement was that the national government would "accept" those systems).

But the national government also wanted (through this nationalization) to transform the provincial pension systems, making them compatible with the already-reformed national regime. In particular, the objective was to eliminate the privileges of different special pension regimes and to incorporate progressively the universe of workers into the newly created capitalization system. Thus, the actual transfer of the pension systems further involved the signing of a "transfer act" which had to be ratified by the local legislature and which established strong conditionality clauses. Among them, one established that the province delegated to the Nation the ability to legislate in social security matters, and that the province assumed the firm commitment not to dictate any laws that directly or indirectly allowed the creation of new provincial pension systems. Also, the local government accepted the authority of the National Treasury to make withholdings from coparticipation income to cover the payment of the personal and employer contributions to the new nationalized system. Finally, a very important clause sets forth that the province assumes all the responsibility for the consequences of any judicial action

[15] Which never materialized.

promoted by the beneficiaries, even when these actions were based on the alleged unconstitutionality of the proposed policy.

An important aspect to highlight is that when the "Fiscal Pact" was signed there was no reliable estimation of the fiscal cost involved. The only information available was the transfers that the provincial treasuries had to make to the provincial agencies in charge of operating of the pension systems. As will be clear below, this transfer turned out to be a poor estimator of the actual fiscal cost that had to be incurred by the central authorities.

The strong conditionality clauses produced vigorous resistance by active workers and their local unions, which was expressed in local legislatures. The shift of responsibility was thus achieved relatively easily only in those places where the national government had much stronger negotiating power and control of local affairs. The first provinces to transfer the provincial pension systems were Catamarca, Santiago del Estero and the City of Buenos Aires, all in 1994. In Santiago del Estero the change coincided with a period in which the province was under the intervention of the National Government, while the mayor of City of Buenos Aires was (at the time) appointed by the President.[16] In the case of Catamarca, the change took place immediately before a federal intervention.

As the financial and fiscal situation of provinces worsened during 1995 more jurisdictions agreed to relinquish their pension systems. In December of 1995 the transfer of Salta's system was negotiated, followed by San Juan and Mendoza the following month and La Rioja in March of 1996. Finally, between April and November of that year Jujuy, Rio Negro, Tucuman and San Luis accomplished the nationalization of their pension systems.[17]

Table 3 presents the list of provinces (in bold) that during 1994-1996 transferred their social security systems to the national level and the "short-run" fiscal cost assumed by the national authorities calculated as the deficits between income and expenditures in each provincial system. It should be noted that these deficits were higher than the allocations made by provincial treasuries, given that when the transfer was executed the province affected extraordinary revenues (for example pre-allocation of tax revenues) to meet the pension system deficits.[18]

[16] This changed after the Constitutional reform of 1994; the City of Buenos Aires became autonomous and had its mayor elected directly by the voters for the first time in 1995.

[17] After that there was a change in the Ministry of Economics, and the new team was not enthusiastic about pushing for any further consolidation of provincial pension regimes.

[18] In anticipation of this change of rules, several new pensions were granted.

Thus, while aggregate financial cost for the national government was estimated at about $500 million a year in 1996, it jumped to more than $1,500 million in 1998.[19]

Table 3. Nationalization of the Provincial Pension Systems: Fiscal Cost

	Date of the Aggreement	Fiscal cost (in millon of pesos) Estimated Year 1996	Actual Year 1998
Santiago del Estero	07/14/1994	s/d	158.8
Catamarca	07/17/1994	s/d	132
Salta	12/31/1995	79.8	115.7
Mendoza	01/26/1996	102	143
San Juan	01/30/1996	90.9	135.4
La Rioja	03/29/1996	64.6	124.8
Río Negro	05/01/1996	44.5	109.4
Jujuy	31/06/96	55.0	106.2
Tucumán	07/15/1996	32.2	192.5
San Luis	09/18/1996	32.8	48.7
GCBA	s/d	s/d	256.6
Total		501.8	1523.1

Source: Secretaría de Programación Económica y Regional y Secretaría de Hacienda.

Was a Bailout Extended and If So, What were its Determinants?

In order to see whether this episode can be characterized as a bailout it is convenient to go back to the conceptual framework presented in Section 2. It was there indicated that a bailout situation is characterized by the presence of two conditions: deviation from a rule and opportunistic behavior by a sub-national government, in part motivated by anticipation of the federal government's ex-post incentives to deviate.

Regarding the first condition, is difficult to understand the nationalization of the provincial pension funds as an ex-ante rule that the federal government set well in advance as a part of the initial set of reforms that characterized the convertibility period. Indeed, the "Pacto Fiscal" that first provided a context for transferring the pension system first appeared can be

[19] The national government asked for financial aid from the Inter-American Development Bank and the International Bank for Reconstruction and Development to finance a portion of this cost (US$750 million). The program incorporated conditionalities for both the Nation and the provinces. It is important to note that a demographic model was developed to estimate the fiscal effect of the transfer (Table 4). As can be observed in the table, the actual fiscal cost far exceeded the estimates.

interpreted as an ex-post move by the federal government in an attempt to solve the already serious problems that the pension system deficits were causing. Though compelled to act, the federal government still wanted to obtain some advantages in exchange. In this sense, a key objective was to reform the provincial pension systems (so as to make them more sustainable intertemporally); it also sought to introduce other reforms in provincial finances and to obtain more funds (through pre-coparticipations) in order to finance the national social security system's growing deficit. In sum, the "Pacto Fiscal" was a complex ex-post trade.

To what extent was this intervention anticipated ex-ante by provincial authorities, thus motivating their more expansive behavior? This is a difficult question to answer given the information available. Nevertheless, many of the provincial systems that were later on transferred have been very generous in terms of eligibility requirements and pension benefit payments. Even though before August 1993 (when the Pact was signed) it could have been difficult to anticipate the intervention of the federal government through this scheme, provincial authorities could have anticipated other types of financial aid (e.g., national treasury contributions) that were more common at that time. In any case, at the end of 1993 the possibility of nationalizing the provincial system was already "available" and there is evidence that some jurisdictions accelerated the granting of very benevolent pensions before transferring the system. Also, the federal government passively absorbed the provincial pension outlays independently of the magnitude of the imbalances that were present in the systems. The conditionality involved in the operation did not depend on the lower or higher deficit presented in each province.

Still, there was no rush by provincial government to accept the national authorities' "offer." So why is that some provinces accepted and others not? What were the determinants that pushed the federal government to act in the case of some jurisdictions (and the local authorities to favor that intervention) and not to intervene in the case of others? To perform the analysis of the determinants it is convenient to recall the framework presented in Section 2. In that framework, the cost of adjustment that the local jurisdiction has to endure to avoid bailout is a critical factor affecting the ex-post incentives of the federal government. In this case the cost can be measured by the magnitude of the deficit in the pension system both in terms of total pension expenditures and, especially, in terms of provincial total own revenues.

Table 4 presents information on these indicators. The data suggest that, in general, the social security systems transferred were those with the greatest imbalances. Undoubtedly, the fiscal benefit (in terms of avoiding fiscal adjustment) in those provinces was significant.[20] Regarding the cost of adjusting internally, provinces had two instruments for doing so: on one end to push for a reform that tightened the requisites to access pension benefits, on the other, assigning tax revenues to compensate the disequilibria.[21]

In fact, there has been no provincial reform, which permanently tightened the retirement conditions (no one took the first avenue). Some provinces did assign specific taxes to reinforce the financing of their pension systems; in general they used internal taxes and lottery taxes (as did, for example, Buenos Aires and Mendoza). The provinces' ability to obtain resources was limited given the magnitude of the deficits, though, making it almost impossible to resolve their fiscal dilemmas through these channels.

[20] There were some exceptions to this rule: Mendoza, which decided to transfer its system to the Nation even when its imbalance was relatively low (equivalent to 13.9 percent of pension expenditures), and Santa Cruz and Santa Fe, which decided not to transfer their social security systems though they had important imbalances in their systems (32.9 percent for the former, and 29.2 percent for the latter). In the case of Mendoza, it should be noted that the retirement fund had extraordinary tax receipts assigned to it, which diminished its imbalance considerably.

[21] It is true that many provinces passed emergency laws that ameliorated, although temporarily, the disequilibria in the pension systems.

Table 4. Nationalization of the Provincial Pension Systems: Economic and Political Determinants

Provinces	Pension system transfer-red	Cost of Adjustment Pension deficits (1994)			Political-economy considerations					
		in millions	in terms of pension	in terms of provincial tax revenues	political cost (2) Year 1996	party affiliation Year 1996	Provincial legislature (1996) Representatives	Senators		
Ciudad de Buenos Aires	***Yes***	***193.0***	***43.8***	***8.2%***	***4.2%***	***Inter.Federal***			M.C.B.A.	2,352,892
Buenos Aires	***No***	***227.3***	***16.9***	***6.2%***	***5.4%***	***PJ***	47.8%		PROVINCIA DE B.A.	3,642,000
Catamarca	***Yes***	***25.2***	***45.8***	***95.8%***	***18.5%***	***FC***	**48.8%**	**62.0%**	CATAMARCA	26,312
Córdoba	No	67.9	8.6	*7.9%*	5.4%	UCR	54.6%		CORDOBA	860,235
Corrientes	No	31.9	18.3	*45.1%*	9.2%	PAL	50.0%		CORRIENTES	70,780
Chaco	No	14.4	8.1	*17.8%*	9.1%	PJ	31.3%		CHACO	81,104
Chubut	No	12.7	18.4	*24.3%*	12.5%	UCR	59.3%		CHUBUT	52,207
Entre Ríos	No	54.2	19.9	*21.8%*	8.3%	PJ	53.6%		ENTRE RIOS	248,440
Formosa	No	2.1	2.2	*7.7%*	15.9%	PJ	60.0%		FORMOSA	27,356
Jujuy	***Yes***	***45.1***	***34.4***	***90.5%***	***11.4%***	***PJ***	***52.1%***		JUJUY	49,808
La Pampa	No	6.4	12.5	7.7%	9.5%	PJ	57.7%		LA PAMPA	82,841
La Rioja	***Yes***	***15.2***	***12.5***	***65.3%***	***23.2%***	***PJ***	***96.4%***		LA RIOJA	23,276
Mendoza	***Yes***	***36.9***	***13.9***	***8.6%***	***6.8%***	***PJ***	***54.1%***	***52.6%***	MENDOZA	427,499
Misiones	No	4.5	3.8	5.5%	8.1%	PJ	52.5%		MISIONES	82,096
Neuquen	No	1.1	1.8	0.9%	16.9%	MPN	62.9%		NEUQUEN	116,015
Río Negro	***Yes***	***3.1***	***1.9***	***2.5%***	***12.6%***	***UCR***	***51.1%***		RIO NEGRO	125,875
Salta	***Yes***	***21.1***	***10.7***	***20.4%***	***9.2%***	***PJ***	***70.0%***	***86.9%***	SALTA	103,540
San Juan	***Yes***	***64.7***	***30.0***	***103.2%***	***9.9%***	***PJ***	***62.2%***		SAN JUAN	62,672
San Luis	***Yes***	***16.3***	***20.6***	***21.4%***	***10.4%***	***PJ***	***60.5%***	***100.0%***	SAN LUIS	76,050
Santa Cruz	No	25.7	32.9	47.5%	22.4%	PJ	62.5%		SANTA CRUZ	54,139
Santa Fe	No	138.6	29.2	16.2%	6.1%	PJ	56.0%		SANTA FE	853,451
Santiago del Estero	***Yes***	***45.2***	***65.5***	***78.6%***	***8.9%***	***Inter. Federal***			SANTIAGO DEL ESTERO	57,509
Tucuman	***Yes***	***51.7***	***21.3***	***33.2%***	***8.4%***	***FR***	***37.5%***		TUCUMAN	155,863
Tierra del Fuego	No	0.0	0.0	0.0%	18.6%	MPF	46.7%		TIERRA DEL FUEGO	48,579
									TOTAL	9,680,541

(1) Budget transfers to social security agencies.
(2) State and municipal public employees as % of the number of voters.
Source: Authors' calculations.

The cost of adjustment indicator calculated as the pension system deficit as a proportion of the province's own revenues (see Table 4) indicates that for some provinces the tax effort needed to finance these deficits would have been quite significant. Even if they allocated all their own revenues to the pension system the deficits could not have been financed.

Another determinant emphasized in Section 2 was the political cost/benefit the federal government and the local government have to bear for engaging in a bailout operation. In the case of the provincial pension systems, given the conditionality imposed by the federal government (in terms of the features of the newly nationalized regime), there was a basic trade-off involved. In each jurisdiction the benefit provided by the elimination of the deficit in their pension systems (basically the avoidance of a fiscal adjustment) have to be compared with the political cost associated with the inclusion of active public employees in a more restrictive social security system. In this regard, the fact that the transfers accelerated somehow after mid-1995, when national and provincial elections were held, suggests that to have this issue in the pre-electoral agenda would have implied important political costs.

To quantify the impact of this phenomenon, political cost is measured as the percentage of public employees (both in the provincial and the municipal levels) within the total quantity of voters in each province. Table 4 shows a high participation of public employment in the number of voters in the case of Catamarca, Chubut, Formosa, La Rioja, Neuquén, Santa Cruz and Tierra del Fuego. Among, this group, only Catamarca and La Rioja transferred their social security systems. Due to the fact that the deficit was considerably high in these provinces, it is very probable that the fiscal benefit compensated the higher political cost.

Another political variable that could have played an important role is whether the party ruling at the national level also controlled the provincial administration. Given that the transfer of the pension system was, at least initially, part of a broader trade between provinces and the national government, it may be that, if party discipline is important, then other things constant Peronist (or federal intervened) provinces would have had more incentives to participate compared to non-Peronist jurisdictions. As shown in Table 4, many of the provinces that transferred their pension system were run by the Peronist party or were under federal intervention (i.e., Santiago del Estero), though the provinces of Rio Negro and Catamarca, governed by Radical administrations, joined the transfer scheme.

The final political variable to consider is the composition of the provincial legislature, since the transfer required its ratification through a provincial law. Table 4 shows information on this variable. With the exceptions of Catamarca and Tucuman, the governors that decided to transfer had a political majority in their legislatures.

In order to assess more formally the impact of the identified variables two types of statistical exercises are conducted. One compares the means of the variables for the two groups of provinces (the provinces that transferred the pension and the provinces that did not), using parametric and non-parametric tests. A second exercise estimates the impact of the different variables on the probability that a given province transfers its pension system.

Table 5 shows the means of the variables for the two groups of provinces. When the deficit is measured in terms of pension expenditures, the jurisdictions that transferred the pension system have deficits twice those of the other group. An even greater difference in the means is obtained when the deficit is measured in terms of provincial tax. The percentage of provinces that were governed by the same party as the President is also higher for first group. On the other hand, the political cost variable has practically the same mean for both groups.

The next step is to test the statistical significance of the differences in the means. This is done with parametric (t-statistic) and non-parametric (Wilcoxon) tests. The results are shown in Table 6. Only the pension deficit as percentage of expenditures and the same variable measured in terms of provincial taxes have a significant different in means for the two groups. This result is robust since it is found in all the tests. Given this result it is not surprising to find that in the Probit estimation only these variables came out with the right sign and significant (see Table 7).[22] Nevertheless, the very reduced level for the R2 indicator suggests that our model leaves a significant proportion of the decision to transfer unexplained.

[22] As few observations are available, only one variable is introduced in each estimation.

Table 5. Means of Variables, Transferring Provinces and Others

Variables	All Provinces		Provinces that Transfer		Provinces that do not transfer	
	Obs	Mean	Obs	Mean	Obs	Mean
Pension system deficit as a percentage of Expenditures	24	0.197	11	0.273	13	0.133
Pension system deficit as percentage of own revenues	24	0.369	11	0.587	13	0.184
Political Cost	24	0.113	11	0.112	13	0.113
Governor's Party	24	0.667	11	0.727	13	0.615
Divided Government	22	0.227	9	0.222	13	0.231

Table 6. Statistical Significance of Difference in Means

Variables		T-test			Wilcoxon rank-sum test
	Mean (0)	Mean(1)	t	t (unequal variance)	z
Deficit (generated by the Pension System) as a percentage of Expenditures	0.133	0.273	-2.3023*	-2.1990*	-3.161
Pension system deficit as percentage of own revenues	0.184	0.587	-2.7584*	-2.6082*	-2.636**
Political Cost	0.113	0.112	0.0501	0.0502	-0.29
Governor's Party	0.6153	0.7272	-0.5586	-0.5626	-0.567
Divided Government	0.2307	0.2222	0.0448	0.0448	0.046

Table 7. Probit Estimation of Means

Probit Estimation	Probability of transfer	
Independent Variable	Probability of transfer.	
Constant	0.946*	-0.811*
	(-1.968)	(-2.064)
Pension System deficit as percentage of expenditures	4.418*	
	(2.017)	
Pension system deficit as a percentage of tax revenues		2.066*
		(2.258)
Pseudo R2	0.1598	0.2122

Note: "t" statistic in parenthesis; "**" significant at 1% level; "*" significant at 5% level.

3.2 Treasury Loans to Provinces (in the form of BOTESO 10) during 1992-94

Between 1992 and 1994 the federal government provided financial assistance to seven provinces that were experiencing fiscal and financial difficulties. Financial aid took the form of handling national treasury bonds available at the federal level at that time. Using this ad hoc mechanism the central government granted loans for a total of US$ 800 million. The following subsection briefly describes the economic and fiscal situation of the jurisdictions that received this assistance and the main features of the loans, in particular, the terms of the contracts and whether conditionality was involved. Subsequently discussed is the institutional and political context in which these jurisdictions received the assistance, with a general appraisal of the episode as a case of bailout.

The Economic and Fiscal Background in the Assisted Provinces and the Main Features of the Loans

Table 8 presents the list of the seven provinces that were favored with these operations, the date when the rescue took place, the amount received, the fiscal deficit in the provinces in the previous year and other fiscal and economic indicators. Most of the jurisdictions that received the assistance were relatively poor provinces that were suffering serious fiscal deficits and increasing debt in the period immediately before they received the loans. Moreover, the possibility for these jurisdictions of obtaining new debt in the financial markets was seriously damaged because they already had a high proportion of their coparticipation income committed to the execution of loan guarantees taken in previous years.

Table 8. Treasury Loans Made in Bonds (BOTESO 10): Provincial Fiscal Indicators in Millions of Pesos

			Fiscal indicators (year 1994)				
	Amount	Date	Fiscal Outcome(1)				
			in millions	In % of expenditures	Debt stock (2)	Debt service (3)	
Ciudad de Buenos Aires	0		76.4	2.8	103.2%	386.9	2740
Buenos Aires	0		-304.4	3.8	37.8%	241.3	8049
Catamarca	***70***	***01/20/1994***	**-97.9**	20.1	**78.8%**	**23.0**	487
Cordoba	0		-399.3	15.7	46.7%	147.3	2542
Corrientes	***70***	***10/09/1992***	**-84.2**	15.3	**s/d**	**36.3**	549
Corrientes	***199.9***	***03/25/1994***	**-35.6**	5.2	**89.3%**	**150.8**	681
Chaco	0		-55.4	7.3	76.6%	52.1	760
Chubut	0		-184.1	29.9	14.4%	45.7	616
Entre Rios	0		-71.5	6.9	41.7%	75.9	1035
Formosa	***150***	***06/30/1994***	**-146.3**	21.5	**68.3%**	**227.6**	682
Jujuy	0		-128.7	19.4	42.1%	17.4	662
La Pampa	0		-35.7	7.6	0.0%	0.7	469
La Rioja	0		-21.0	4.1	120.3%	19.8	518
Mendoza	0		-10.2	0.8	20.3%	60.5	1312
Misiones	***6***	***03/08/1994***	**-76.4**	11.6	**42.6%**	**15.3**	661
Neuquen	0		-126.6	14.0	7.5%	68.2	906
Rio Negro	***68***	***01/21/1994***	**-168.4**	22.0	**61.1%**	**19.2**	765
Salta	0		-52.6	6.6	37.9%	43.5	796
San Juan	0		-252.1	31.6	51.5%	16.5	798
San Luis	0		-11.3	2.5	0.0%	0.1	445
Santa Cruz	0		-45.7	8.8	16.3%	4.6	520
Santa Fe	0		-1.3	0.1	18.1%	5.4	2199
Santiago del Estero	***78***	***11/26/1993***	**-77.0**	11.3	**s/d**	**45.2**	681
Santiago del Estero (6)	***80.4***	***03/21/1994***	**-23.2**	3.2	**26.4%**	**61.2**	718
Tucuman	***80***	***07/14/1994***	**-25.1**	2.8	**7.3%**	**35.9**	904
Tierra del Fuego	0		-85.7	24.1	61.0%	6.3	355

(1) Not including privatizations.

(2) As % of provincial expenditures.

(3) Interest on debt plus amortization.

Source: Authors' calculations.

The importance of the rescue operation involved in these loans can be appreciated by the fact that these funds represented a significant proportion of the financial needs of the jurisdictions. If only the loans granted during 1994 are considered, it can be seen that these loans covered 89.5 percent of these provinces' financing needs in that year. When the loans made to Corrientes in 1992 and to Santiago del Estero in 1993 are included, the total amount of resources provided reached $800 million.

To understand the reasons why the federal government used such an instrument to assist the jurisdictions, it should be considered that since 1991, with the establishment of the convertibility plan, the federal government faced much stronger restrictions on aiding financially distressed provinces. Neither direct loans from the treasury nor Central Bank rediscounts were possible alternatives. In addition, most of the other transfers to provinces were implemented through automatic mechanisms that left little room for discretionary operations of the magnitude that was required. Thus one way out from these restrictions was to use the remaining amount of treasury bonds that the national government issued in 1992.[23]

The institutional set-up used to grant these loans was an agreement between each province and the national government. These agreements were designed by the Ministry of Economy and were signed by the National Treasury Secretary and by the Province's Governor. The texts of the agreements already offered some justifications for the rescue operation. For example, they stated that the economic-financial difficulties in the province could conspire against the jurisdiction's political and social stability and therefore justified financial intervention from the federal government.

In this context, and to avoid a new situation where the provinces were to ask for funds again in the future, some of the agreements established fiscal conditionality clauses. They included targets for the reduction of the fiscal deficit, freezing the number of public employees, and a prohibition on contracting new debt.[24]

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[23] Article 2 of Decree 211/92 sets forth the following characteristics of the public title: a) Denomination: Funds of the Treasury to 10 years of term; b) Currency of emission: American dollars; c) Total amount of the emission: five hundred million (U$S 500 millions); d) emission date: April of 1990; e) Maturity: 10 years; f) Amortization: it will be made in thirty (30) successive quarterly installments. The first twenty-nine (29) payments will be equivalent to (3.30 percent), and the last to (4.30 percent), of the amount emitted plus the capitalized interests yielded during the first thirty (30) months. The first installment dues after the first thirty three (33) months of the emission date; g) Interest: the rate paid three-month eurodollar deposits in the London Market (LIBOR). The interest will be capitalized during the first thirty (30) months and will be paid together with the amortization payments.

[24] As explained below, these targets were not achieved.

Once the agreement was signed, the province took the bonds to a private sector financial agent, who had to carry out a gradual placement of these bonds in the market so as guarantee a normal absorption of the titles, avoiding pronounced decreases in their prices. Nevertheless, as shown in Figure 2, these decreases could not be avoided, at least in the first quarter of 1994, when there is a significant drop in the price of these financial titles, coincident with the launching of many of these loan operations. This generated a fiscal cost to provinces given the increment in the implicit interest rate of the loans.

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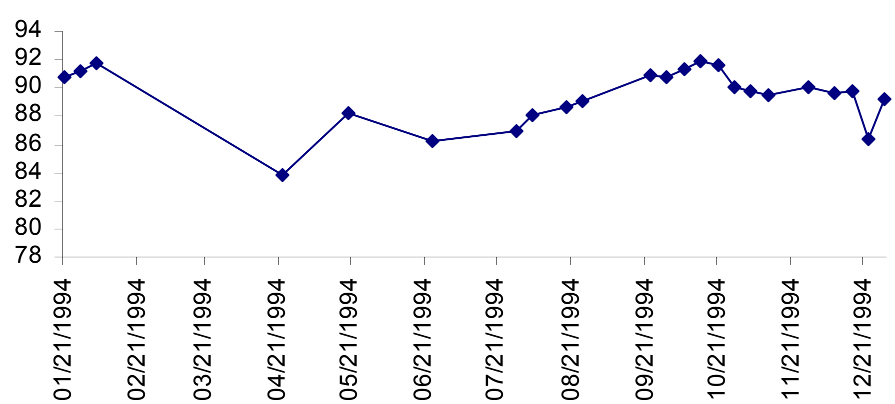
Figure 2.
Prices of BOTESO 10
Year 1994



The agreements also included a clause explicitly stating that the loans should be canceled through the automatic utilization of the resources that the provinces have by virtue of the coparticipation regime of law 23.548. This clause assured that the loans were to be paid back on the originally established dates. Indeed, when the loans came due the national government started retaining the amortization and interest payments from the coparticipation funds corresponding to each jurisdiction.

Was a Bailout Extended and, If So, What Were Its Determinants?

In this episode it is clear that the federal government's intervention did not correspond with any pre-established rule. The handing of public bonds to provinces was not included within any of the federal fiscal institutions that regulated the fiscal relationship between the central and provincial governments. As the national authorities originally issued those bonds to pay their own obligations, the federal government's intervention in this case meets one of the conditions of bailout discussed in Section 2. It is more difficult to find direct evidence regarding moral hazard or opportunistic behavior on the part of the sub-national government (motivated, in part, by the anticipation of the federal government reaction). Nevertheless, as shown above, these provinces were running significant and unsustainable fiscal deficits for several years. Moreover, some of them received the same type of discretionary transfers on two occasions, proving that they did not believe federal government statements that the provinces would not be rescued again. This episode of handling national bonds to provincial administrations in financial problems thus meets the definition of bailout.

But how much money was involved in these bailout operations, and what was the magnitude of the gifts or subsidies involved? At first glance it may seem that, given that loans were eventually repaid in full by most provinces, there was no gift involved and the whole episode was just a simple loan operation. But this is not the case in light of the fact that these loans implied a lower financial cost than other financing alternatives. The key issue is that these bonds paid a rate significantly smaller (even considering the rise in the implicit rate mentioned above) than other alternatives available for provincial governments at that time. In other words, provinces were able to borrow at a rate that reflected the risk premium of the federal government rather than their own (higher) risk premium.[25]

Also, although the agreements included conditionality clauses, those clauses were never operative in practice. On the contrary, the fiscal situations in most provinces that received the loans continued to deteriorate afterwards. In some cases, like Santiago del Estero and Corrientes, the national government had to come again to the rescue using the same type of loans in two and one opportunities, respectively.

Why was the federal government willing to support the provinces in the way it did? Why those provinces and not others? Table 9 presents a series of economic and political indicators that were suggested by the analysis presented in Section 2 and can help to explain the determinants of bailout.

[25] A similar case occurred at the international level when, in the aftermath of the Tequila crisis, the US Treasury granted Mexico a loan at below market rates. Though Mexico eventually paid back the full amount of the loans, it received an implicit gift by the saving in interest payments.

On the one hand, and starting by the cost of adjustment, the financial situation of many of the jurisdictions that had received financial aid in BOTESO 10 was indeed very complicated, with fiscal deficits higher than 20 percent of expenditures. The pressing fiscal problem of these jurisdictions was reflected in significant arrears in the salaries of public employees and suppliers. Could the involved jurisdictions have adjusted on their own without the assistance of federal authorities? To assess this possibility, an indicator was constructed of the cost of adjustment measured as the ratio of the deficit to provincial own revenues. As shown in Table 9, in provinces like Catamarca and Formosa, the deficits represented more than three times what they collected in local taxes. This indicator is quite high for most of the jurisdiction that received BOTESO loans, suggesting that jurisdictions would have to go through a significant cost if they were deprived of federal assistance. Of course one key determinant of this phenomenon is that most of these jurisdictions have a very high level of vertical fiscal imbalance; that is, they control only a small part of the total amount of resources they receive (see Table 9).

Table 9. Treasury Loans Made in Bonds (BOTESO 10): Determinants of Bailout

	Amount	Cost of adjustment		Political-economy consideration				Fiscal Institution Index
		deficit / own resources	vertical imbalance (1)	share of votes	Party in power (2)	Legislature Representatives	Senators	
Ciudad de Buenos Aires	0	0.03	0.931078549	0.113830054				
Buenos Aires	0	0.074	0.52839613	0.370521403	1	0.4783		35
Catamarca	***70***	**3.314**	**0.075885636**	***0.007890927***	***0***	**0.4878**	**0.62**	20
Cordoba	0	0.389	0.478782601	0.089492835	0	0.5455		30
Corrientes	***70***	**0.209**	**0.150269028**	***0.024259326***	***1***			
Corrientes	***199.9***	**0.938**	**0**	***0.024259326***	***1***	**0.5**		25
Chaco	0	0.605	0.129842532	0.024527484	0	0.3125		25
Chubut	0	1.325	0.323790751	0.00996872	0	0.5926		17.5
Entre Rios	0	0.232	0.309018434	0.032574468	1	0.5357		22.5
Formosa	***150***	**3.711**	**0.073683238**	***0.010908851***	***1***	**0.6**		20
Jujuy	0	1.002	0.240764896	0.013549314	1	***0.5208***		27.5
La Pampa	0	0.276	0.29956924	0.008518178	1	0.5769		35
La Rioja	0	0.384	0.110431609	0.006724789	1	***0.9643***	***0.526***	12.5
Mendoza	0	0.014	0.499348528	0.041869364	1	***0.541***		40
Misiones	***6***	**0.743**	**0.172082903**	***0.021264464***	***1***	**0.525**		15
Neuquen	0	0.267	0.607767497	0.010739797	0	0.6286		22.5
Rio Negro	***68***	**0.804**	**0.350778651**	***0.012853422***	***0***	***0.511***	***0.869***	20
Salta	0	0.254	0.278605663	0.024178861	0	***0.7***		17.5
San Juan	0	3.043	0.151834242	0.016005109	1	***0.622***	***1***	10
San Luis	0	0.132	0.197588184	0.00911623	1	***0.6047***		35
Santa Cruz	0	0.247	0.360776062	0.004186363	1	0.625		17.5
Santa Fe	0	0.001	0.470981379	0.090226545	1	0.56		25
Santiago del Estero	***78***	**1.5**	**s/d**	***0.020210066***	***1***	***0.511***		
Santiago del Estero (3)	***80.4***	**0.969**	**0.124062616**	***0.020210066***	***1***			22.5
Tucuman	***80***	**0.457**	**0.318955661**	***0.034344254***	***1***	***0.375***		22.5
Tierra del Fuego	0	0.238	0.228713935	0.002238768	0	0.4667		15

Under these circumstances, to what extent were the federal government's ex-post incentives affected by political economy considerations? To analyze this issue, a variable was constructed measuring each jurisdiction's share of the total national electorate. As seen in Table 9, most of the jurisdictions that received assistance from the federal government were not very important in terms of national votes. This is not surprising given that they are relatively small and poor jurisdictions. On the other hand, it is also interesting to consider whether there was any regularity in terms of the party affiliation of the jurisdiction that received assistance from the national authorities. In this regard the data shown in Table 10 suggest that BOTESO loans have been granted independently of political affiliation. For example loans have been granted to provinces belonging to the opposition (Río Negro and Catamarca), provinces with Peronist governors (Misiones, Tucuman and Santiago del Estero) and provinces under federal intervention (Corrientes and Santiago del Estero).

Table 10. BOTESO Loans and Political Indicators

Variables	All Provinces		Provinces that Received Bonds		Provinces that Did Not Receive Bonds	
	Obs	Mean	Obs	Mean	Obs	Mean
Cost of Adjustment	26	0.8135	9	1.4044	17	0.5006
Vertical Imbalance	25	0.2964	8	0.1575	17	0.3618
Share of Voters	26	0.0388	9	0.0178	17	0.0500
Divided Government	23	0.2609	8	0.2500	15	0.2667
Presidential Party	25	0.5600	9	0.4444	16	0.6250
Institutional Index	25	23.4000	9	21.9444	16	24.2188

As in the case of the last episode, it is useful to formally investigate the statistical significance of the above-indicated variables in the national government's decision to bail out some provinces. The techniques applied to the provincial pension system episode. Table 10 shows the mean values for the relevant variables for the two groups.[26] As already suggested, provinces that received loans have a higher mean deficit, face a higher cost of adjustment and also have a higher vertical fiscal imbalance. In regard to political variables, the table shows that the provinces bailed out have, on average, a smaller share of national votes than those that did

[26] The total number of province-years when a bailout was observed is nine, with seven in year 1994, and two other cases: Corrientes in 1992 and Santiago del Estero in 1993.

not receive loans. In addition, the jurisdictions bailed out belonged largely to parties other than that in power at the national level.

Table 11 shows the results of the different tests. Only the differences in the cost of adjustment and in the vertical imbalance came out statistical significant using the three tests. Thus it is not surprising that these variables are significant in the Probit estimation (see Table 12). Though the explanatory power of the regressions are not very high, we can conclude that the adjustment cost has been a significant determinant of the decision of the federal government to bailout these provinces thorough the BOTESO instrument.

Table 11. T-Test and Wilcoxon Rank-Sum Test Results

Variables	T-test				Wilcoxon rank-sum test
	Mean (0)	Mean(1)	t	t (unequal variance)	z
Cost of Adjustment	0.5005	1.4044	-2.3266*	-1.9920^	-2.561*
Vertical Imbalance	0.3617	0.1575	2.5603*	3.0807*	2.448
Share of Voters	0.05	0.01777	1.073	1.4834	0.14
Divided Government	0.2666	0.25	0.0829	0.0826	0.085
Presidential Party	0.625	0.4444	0.8504	0.8374	0.855
Institutional Index	21.94	24.22	0.7141	0.8653	0.57

Table 12. Probit Estimation of Probability of Receiving Bonds

Independent Variable	Probability of receiving bonds			
Constant	0.948	-0.9088*	-1.0254*	0.2881
	(1.494)	(-2.502)	(-2.032)	(0.327)
Vertical Imabalance	-5.7855*			
	(-2.259)			
Cost of Adjustment		0.5977*		
		(2.031)		
Institutional index				-0.0281
				(-0.758)
Pseudo R2	0.2588	0.145	0.0468	0.0181

Note: "t" statistic in parenthesis; "**" significant at 1% level;
"*" significant at 5% level.

3.3 Provincial Fiscal Crises and National Treasury Contributions

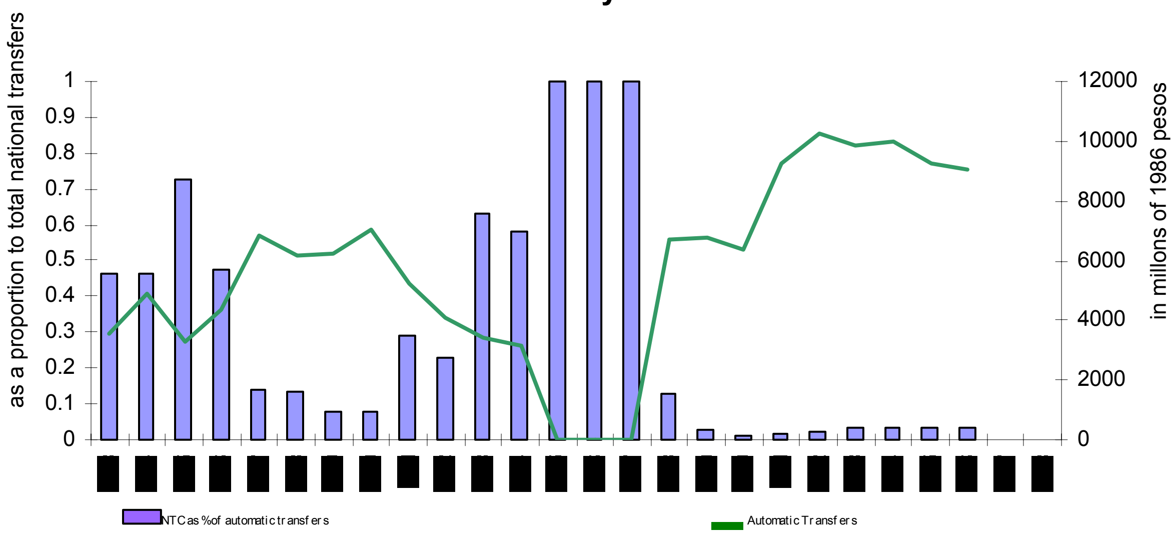
National Treasuries Contributions are discretionary transfers made by the central government to financially distressed provinces without any obligation to repay. The discretionary character of the National Treasury Contributions (NTC) comes mostly from the fact that its distribution among provincial jurisdictions is left totally unspecified and at the will of the national authorities. Thus these transfer represented an "open window" through which the federal authorities may accommodate expansive and unsustainable fiscal behavior by the provinces. Described below is the legal framework that regulates the working of these transfers and their aggregate evolution in the last 25 years. Subsequently examined is the distribution of these funds among different provinces, with an attempt to understand the logic of this distribution in terms of both economic and political economy considerations. The subsection ends with an appraisal of the working of these transfers as a possible mechanism behind bailout-type episodes.

The Legal Framework Regulating the National Treasury Contributions (NTCs) and their Evolution over Time and Across Jurisdictions

The origin of this type of transfers can be traced out to the National Constitution. Article 67, part 8 reads, "It corresponds to Congress to establish subsidies from the National Treasury to provinces whose tax income does not match ordinary expenses set up in their budgets." Following this constitutional prescription, Tax Sharing Law 23548 of 1988, which is currently in effect, established that these transfers would be financed with 1 percent of the pool of shared tax resources, and that the objective of these transfers is "to address emergency situations and financial disequilibria in the finances of provincial governments." The law also placed the Interior Ministry in charge of distributing the funds and reporting on the use of these resources.

The NTC had a long history in the National-Provincial fiscal regime. Until 1935 they were the only funds that the central government delivered to the jurisdictions. After that year other automatic transfers to distribute federal resources across jurisdictions joined the NTC. Figure 3 shows the aggregate evolution of NTC during the last 25 years, together with the funds distributed through automatic transfers. In general it is possible to notice a negative association between these two series, suggesting that discretionary NTC transfers were used when automatic transfers declined.[27] For example, in the 1970s and mid-1980s, when inflation rose considerably, the increasing use of NTC was a way for provinces to share in national government resources derived from the inflation tax (which, on the other hand, was causing a decline in the real value of regular taxation, both national and provincial.)

Figure 3.
National Treasury Contributions



Between 1985 and 1988 the NTC played a central role in the financial relationships between the Nation and Provinces. The absence of a federal tax sharing agreement—as the framework established by Law 20.221 expired at the end of 1984—left the NTC as the only legal framework through which the central government distributed federal resources among provincial jurisdictions. Nevertheless, the NTC system was totally discretionary, with no criteria to guide the distribution of funds. Thus, federal authorities were subject to increasing pressures from provinces and those with a better "technology" to do so (i.e., strong political clout) were able to increase their share of total resources.[28]

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[27] More generally, it would be desirable to look at NTCs as a component in the larger "general-equilibrium" federal fiscal game, including even the strategic use of seigniorage as a weapon of the national government (see Saiegh and Tommasi, 1998).

[28] As shown below, one province that was very successful in this political game was La Rioja.

With the sanction of Law 23.548, at the end of 1987, the distribution of the federal funds was again under a proper legal framework. The new law established the secondary distribution of the new tax-sharing regime and also, as indicated, it set up the legal framework for the NTC.

The discretionary character of the National Treasury Contributions (NTC) is illustrated by the fact that their distribution among provincial jurisdictions is left totally and at the will of the national authorities. This feature is reflected in the actual distribution of these funds. As is shown in Table 13, during the last years the assignment of NTC was tilted towards a small group of jurisdictions. One of the most favored provinces was La Rioja which during 1990-1998 obtained an average of 33% of the total funds delivered thorough this mechanism.[29] Other jurisdictions that made extensive use of these transfers were Tucuman, Salta, Mendoza and Corrientes.

Still the fact that over a more or less prolonged period of time certain provinces have been receiving a significant amount of resources from the federal government through NTC does not imply a bailout per se. On the one hand, these transfers by design are geared to assist provinces in financial distress. So in principle we could have the case that those provinces that received more funds during the period under study were subjected more often to shocks compared to the other jurisdictions. Still, given the discretionary character of the NTC, they may have been allocated not following any sort of contingent rule, but taking into account other ex-post considerations like the political affiliation of the governor vis a vis the presidency. If this were the case, then the incentives of the of the local government to behave would be distorted implying that NTC were at least in part geared to bailout provinces that were politically closer to the federal administration. The next section empirically investigates this hypothesis.

[29] In this regard it is interesting to note that the increase in La Rioja's share of total NTC transfers coincided with fact that Menem, former governor of that province, held the presidency.

Table 13. Distribution of NTC by Province, 1990-1998 in Millions of 1996 pesos

Province	1990	1991	1992	1993	1994	1995	1996	1997	1998
Ciudad de Buenos Aires		-	-	-	-	-	-	-	
Buenos Aires	3,450	9,403	27,536	4,619	11,903	4,420	13,031	14,134	8,530
Catamarca	11,020	5,163	2,814	2,803	2,533	896	596	627	3,253
Cordoba	1,129	1,979	5,377	9,333	9,592	11,706	7,634	8,268	14,188
Corrientes	876	4,642	21,054	49,022	16,494	12,482	6,530	8,823	15,464
Chaco	3,342	1,160	6,909	11,881	13,645	16,275	11,421	9,380	10,744
Chubut	3,821	952	3,593	1,752	4,179	4,031	4,562	3,884	9,993
Entre Rios	2,764	4,582	8,442	10,480	7,440	7,286	8,618	10,736	19,941
Formosa	6,856	21,038	17,336	4,268	8,769	13,498	14,731	10,852	8,055
Jujuy	641	3,318	1,759	6,594	2,691	6,749	12,554	17,230	10,514
La Pampa	3,261	2,083	8,241	9,110	9,466	6,779	7,813	912	18,841
La Rioja	13,874	59,081	77,584	108,110	115,362	103,234	108,123	94,973	93,345
Mendoza	1,382	3,095	9,547	4,746	6,901	2,628	2,892	5,746	7,667
Misiones	1,870	60	578	8,059	1,868	1,433	4,085	10,732	12,731
Neuquen	36	818	4,874	5,638	12,442	14,125	26,867	21,885	30,766
Rio Negro	759	1,830	8,392	5,702	21,971	15,289	9,035	5,145	5,513
Salta	8,192	4,330	4,799	14,111	10,036	17,350	1,700	10,902	10,486
San Juan	4,038	3,868	3,467	4,141	2,786	14,752	17,414	20,407	23,231
San Luis	99	3,214	4,296	4,014	12,916	6,211	1,640	2,820	3,305
Santa Cruz	3,252	4,211	4,070	4,205	5,572	5,435	1,879	652	2,216
Santa Fe	4,589	3,586	3,794	16,404	11,713	10,004	3,250	8,855	15,483
Santiago del Estero	3,134	1,056	3,090	10,607	17,254	13,528	16,311	16,084	13,980
Tucuman	6,449	3,943	4,120	17,519	6,965	7,257	13,925	16,792	23,679
Tierra del Fuego	5,483	5,356	19,597	5,351	4,084	3,225	3,548	5,253	7,674
Total	90,316	148,766	251,269	318,469	316,580	298,593	298,159	305,092	369,600

Source: CECE 1997 and Secretaría de Hacienda.

The NTC as Contingent Rule to Smooth Shocks in Provincial Finances: Separating Risk-Sharing from Redistribution

We are going to interpret the NTC transfers as an implicit contingent rule that helps provincial government to moderate the effect of random shocks on their fiscal decisions (taxes and expenditures). The Appendix presents a very simple model where federal transfers are motivated by this risk-sharing motive. The optimal rule that those transfers have to obey is thus obtained from a very simple planning problem. This rule is given by the following condition,

$$T_j = (1/(1+\phi_j))\ F - (\phi_j\ /(1+\phi_j))\ R_j + (1/(1+\phi j))R_{-j}$$

Where:

T_j= amount of NTC transfers received by the j jurisdiction.

F= the total amount of resources to be distributed across jurisdictions.

R_j= revenues of province j.

R_{-j}= revenues collected by all provinces minus the j jurisdiction.

ϕ_j= Parameter that is a function of the weights that different provinces receive in the federal government's utility function.

Equation (1) thus suggests the very intuitive result that transfers to region j increase when there is a bad realization (negative shock) in that province's tax revenues and also when all other jurisdiction receive, as a whole, a good realization. This will assure that public provincial expenditures will be proportional across provinces and across states of nature.

The above optimal risk-sharing rule allows for transfers to be also affected by distributional considerations as represented by the different values that the ϕ parameters can take for different jurisdictions. It is easy to show (see the Appendix) that this parameter will decrease when the weights of the involved jurisdiction in the federal government utility function rises. Notice that this parameter affects not only the constant term but also the slopes of the transfer rule. In the empirical implementation of expression (1) performed below it is assumed that this parameter is a function of the governor's party affiliation vis-a-vis that of the president. Thus, the weight that jurisdiction j receives in the federal government utility function depends on this political variable and we hypothesize that being of the same party of the president gives an extra bargaining power to the jurisdiction to get an extra share of the total NTC transfers.

Equation (1) is estimated using panel regressions with data corresponding to the 1983-1997 period. This is done because there is insufficient annual data perform reliable regressions for each province. The sample is composed by 23 provincial jurisdictions and 14 years.[30] Equation (1) has been estimated normalizing all the variables by the total transfers distributed to all provinces (all terms are divided by F). Thus the dependent variable is actually each province's share of total NTC transfers. The explanatory variables R_{jt} and R_{-jt} include in both cases local tax revenues and automatic transfers received from the federal government. The party affiliation variable, Prespar, is a dummy that takes the value of one when the party of the governor coincides with that of the president. During the chosen sample period there have been important changes in ruling party at both the national and provincial levels. Thus the dummy variable varies not only across jurisdictions but also across time.

Table 14 presents the results of the estimation. In Column (1) the regression is run without including any political variable. In column (2) the Prespar variable is included affecting only the constant of the regression. Finally in equation (3) the full model is run with the political variable also affecting the slopes of the local revenue variables. In all specifications, the coefficient for the local revenue variable is negative and significant while that corresponding to revenues of the rest of the jurisdictions is positive and significant. Thus, as predicted by the theory, NTC transfers have worked at least in part as an implicit contingent rule to smooth shocks in local government revenues. Beyond this result, there is also evidence that the distribution of these discretional transfers has followed political considerations. This is supported by the positive and significant value of the Prespar variable when is included as an additional constant term in the regression. Thus, other things constant, being from the same party of the president increases by 1.3 percentage points the share of a given jurisdiction in the total amount of these grants. On the other hand, and in contrast with what is suggested by the theoretical model, the political variable has no significant effect on the slopes of the regression.

[30] Omitted from the sample is the Federal District (Capital Federal) given that in most years that jurisdiction was not an independent political unit. Also omitted is the year 1989 because in that year there were two different presidents (from different parties) at office.

Table 14. Panel Regressions (Explanatory Variable: Provincial Share in NTC)

Independent variable	R1	R2	R3
Constant	0.0434	0.039	0.036
	(8.98)	(7.21)	(5.43)
Rj (Local revenues)	-0.0043	-0.00401	-0.0035
	(-4.52)	(-4.08)	(-2.71)
R-j (Sum of other provinces revenues)	0.00017	0.00014	0.00015
	(2.84)	(2.13)	(1.88)
Prespar		0.013	0.021
		(2.47)	(1.77)
Prespar*R_j			-0.00041
			(-0.35)
Prespar*R_{-j}			-0.000065
			(-0.53)
Model	FE	FE	FE
Observations	322	322	322
R2	0.064	0.082	0.082

"t" statistic in parenthesis.

Did the Uses of NTC Constitute Bailout Episodes?

This section ends with an overall assessment of the working of the NTC transfers in Argentina as a mechanism that has served to sustain bailout episodes in the fiscal relationship between provincial and federal governments. As indicated earlier, the intervention of the federal authorities in case of provincial financial difficulties using NTC was fully contemplated in the legislation, so this undermines somewhat the bailout interpretation of these transfers. Nonetheless, the findings suggest that in practice the working of these transfers followed other types of ex-post considerations. In particular there is a clear bias in the distribution of transfers towards those provinces politically close to the party ruling at the federal level. Can this estimated bias be interpreted as a measure of bailouts? Section 2 has indicated that any ex-post deviation of the federal government from an ex-ante explicit or even implicit rule can be interpreted as a bailout. Here an ex-post deviation of the federal government from an implicit contingent rule is identified in terms motivated by ex-post political consideration. According to this criterion the case of NTC falls within the present definition of bailout. Within this interpretation, some of the NTC funds directed to provincial jurisdiction were not justified by the occurrence of exogenous shocks, but by the political affiliation of the local party in power, and this helped to sustained irresponsible fiscal behavior in those jurisdictions.

3.4 The Role of the National Government in the Fiscal Crisis of Cordoba

Since the return of democracy in 1983 there have been numerous episodes in which the national government has used extraordinary resources to face fiscal and financial crisis at the provincial level. The better-know episodes include the recurrent crisis in Jujuy which forced its governor to quit in 1998, the 1993 crisis in Tucuman (where divided government was important), and the crises of 1993 and 1994 in Santiago del Estero that culminated with riots in which the Governor's house was set fire and the province was placed under federal intervention. government. Finally we also have the case of Rio Negro in 1995 where the province went almost bankrupt as a combined consequence of accumulated debt and the effects of the Tequila shock. As noted above, there were many ways in which the federal government sent extraordinary resources to these provinces; the most important included advances of coparticipation resources, National Treasury Contributions and loans in public titles (BOTESO 10).

These crises had several features in common. They occurred in relatively poor jurisdictions that had experienced fiscal problems in previous years, and where the social and economic situation, aggravated by local political instability, precluded any attempt at reform. At the same time, the federal government had come to the rescue motivated not only by the magnitude of the crises but also because of the political stakes involved.

A provincial financial crisis that does not fit this description, however, occurred in Cordoba in 1995. Cordoba, a large province that underwent a serious collapse in its finances, was run by the opposition party (and within the opposition party, the line most opposed to the central administration policies). Did the response of the province and that of the federal government differ in this crisis compared to others? Was a bailout granted? In order to answer these questions, the events that eventually prompted the financial collapse in 1995 are described below. Subsequently analyzed the actions taken by the federal government and the provincial government, including the type of financial help handed out by the central authorities as well as the measures taken by the province to avert the crises. The subsection closes with a short discussion of the possible interpretation of these events as a bailout episode.

Background of the Crises: Politics and Fiscal Policy in Cordoba before 1995

Cordoba, located in the center of the Argentinean territory, is the third largest Argentine province in terms of GDP. Together with Buenos Aires, Santa Fe, Mendoza and the City of Buenos Aires it represents one of the most "advanced" jurisdictions. Since the return of democracy the Radical party has governed the province. In 1991, Eduardo Angeloz (losing Presidential candidate in 1989) was elected for a third term as Governor, thanks to a favorable verdict of the provincial supreme court regarding re-reelection. The governor and their local coalition have strongly opposed most of the economic policies run at the federal level. It should be noted, though, that this derived not only from the fact that Cordoba was run by the opposition, but also from a provincial tradition of opposing "centralist" initiatives from the federal authorities. Thus, as discussed above, Cordoba did not join the other provinces in transferring the public sector pension system. Also, it refused to sign the two federal fiscal pacts of 1992 and 1993. Through these pacts the provinces agreed to undertake certain reforms in exchange for a guarantee of a minimum level of coparticipation transfers.[31] Finally, the province refused to privatize most of its provincial public enterprises and banks.

The fiscal behavior of Cordoba during the second and third terms in office of governor Angeloz was characterized by a chronic and growing budgetary imbalance. This imbalance has as its immediate cause a rapid increase in public outlays, which rose by 159 percent from 1990 to 1994, and very poor performance in tax collection (Anuario de la Bolsa de Valores de Cordoba, 1998). The fiscal deficit reached its maximum value in 1994, with a global deficit of $359 million, representing 14 percent of expenditures (see Table 15).

Table 15. Cordoba: Main Fiscal Indicators 1991-1997 in Millions of Pesos

	1990	1991	1992	1993	1994	1995	1996	1997
Total income	842	1111	1651	2219	2183	2218	2138	2421
Own resources	364	429	702	871	1026	976	994	956
National transfers	462	665	909	1011	1058	1220	1123	1436
Other (2)	16	17	40	337	99	22	21	29
Total Expenditure	980	1264	1808	2386	2542	2403	2056	2349

[31] As will be discussed below, this refusal turned out to be very costly for the province.

Table 15., continued

Deficit	-138	-153	-157	-167	-359	-185	82	72
- as % of expenditure	-14%	-12%	-9%	-7%	-14%	-8%	4%	3%
Debt payments	4	24	57	84	35	267	403	171
Total financial needs	142	177	214	251	394	452	321	99

Notes: (1) Updated according to the combined price index, at April 1991 prices.
(2) The 1993 figure includes 235 million pesos transferred to the Provincial Bank of Cordoba.
Source: Investment accounts of the Government of Cordoba.

The accumulation of fiscal deficits in previous years generated a very serious problem of debt overhang at the end of 1994, with an outstanding consolidated public debt of around $684 million. The main creditors were the official provincial bank, with $400 million, and private banks with $115 million (see Table 16). The use of the provincial bank as a source of financing is not a new practice, but Cordoba had been engaging in it at an accelerating pace. In 1993 for example, in a desperate move to obtain fresh resources, the provincial administration "sold" to the provincial bank the "asset" of unpaid taxes. This implied an income of about 235 million for the provincial government.[32] As will be seen below, the overexploiting of the provincial bank as a source of cheap financing contributed to the collapse of the province in 1995.

Table 16. Cordoba: Evolution and Composition of Public Debt in Millions of Pesos

	1990	1991	1992	1993	1994	1995	1996	Jun-97
Consolidated Debt	96.1	44.5	136.1	444.7	648.3	820.8	931.4	869
Provincial Bank of Cordoba	60.8	8.2	67.3	162.3	400.4	203.3	181.2	119.7
Social Bank of Cordoba	0	0	21	34.8	49	6.7	0	0
Other Banks	24.8	0	3.4	163.3	115.2	119.1	3.3	72.8
National Government	0	23.6	22.5	32.6	32.6	6.7	6.7	6.7
Other types (2)	0	0	0	0	0	419	662.4	585
de organismos descentralizados	9.5	8.1	17.9	42.7	36.9	38.9	29.8	30.8
Special accounts	1	4.6	4	9	14.2	27.1	48	54
Floating Debt				312	320.6	509.3	311.4	422.2
Total Debt	96.1	44.5	136.1	756.7	968.9	1330.1	1243	1291.2

Notes: (2) Includes advances on federal coparticipation, CECOR emissions under Law 8,482 and Patriotic Solidarity Bonds.
Source: Bolsa de Comercio de Cordoba, based on data from the Ministerio de Economía y Finanzas.

[32] If this income is not computed the fiscal deficit corresponding to 1993 would have been $400 million instead of the reported $167 million.

Another way of financing the increasing deficits was through the "floating debt," constituted by delays in payments of public sector wages, state pensions and arrears with suppliers. When these other sources of (compulsory) financing are added, the debt climbed to $1,000 million at the end of 1994. This stock of debt represented practically 100 percent of the province's own revenues (including transfers) for that year.

The Unfolding of the Crisis: The Effect of the Liquidity Crises Caused by the Mexican Devaluation

In the context of this very fragile fiscal situation, at the beginning of 1995, the Mexican devaluation generated in Argentina a liquidity crisis and one of the most serious bank panics that the country has ever experienced. The run on banks particularly affected the provincial institutions, as they were perceived to be the least solvent within the financial system. In the case of the Banco de Cordoba this perception was correct. The magnitude of the run suffered by the bank can be illustrated by the fact that it lost $400 million in deposits between the end of 1994 and 1995. This crisis in the provincial bank had a significant impact on provincial finances during 1995. Not only could the province no longer use its bank as a source of financing, but it also had to use provincial fiscal resources in order to prevent the institution's bankruptcy. It is estimated that the provincial treasury had to make an extraordinary contribution of $250 million to keep the bank in operation

Besides the problem with its provincial bank the province had to suffer at the beginning of 1995 an important fall in its total revenues coming both from a reduction in both own tax revenues and transfers from the federal government. Both factors were a consequence of the acute recession that affected the economy at the beginning of 1995. Still the reduction in transfers from the federal government was larger compared to other provinces because Cordoba, as indicated previously, did not sign the Fiscal Pact of 1992, which assured a lower bound for these resources. Thus, while during 1995 the rest of the jurisdictions suffered a 2.8 percent decline in federal transfers, Cordoba was hit by an 8 percent reduction.[33]

As a consequence of these factors the province faced a strong financial restriction since the beginning of 1995 entering into a default-type situation as it could not meet its more immediate expenditure commitments—in particular, payments to public employees, contractors and suppliers. By the middle of 1995 the delay in these obligations reached three months, and the social situation was very unstable, with protest and riots gaining momentum

Actions Taken by the Central and Provincial Authorities

Though the province was in a very difficult situation as of the end of 1994, the federal government intervened, offering some financial assistance only after July 1995, once the incumbent governor stepped down and a new elected administration took the post.[34] Though the new administration was from the same party as the former (Radicals), it was more likely to reach an agreement with the national authorities. Thus, federal assistance was offered in the context of a formal agreement signed between the new provincial authorities and the executive branch of the federal government

Federal emergency assistance consisted of three types of instruments. The first was a $70 million bridge loan by the Banco de la Nación Argentina. Second, the central government pledged to pay Cordoba what it would have received from the guarantee clause in the Federal Pact;[35] one year later the province received more than $100 million as a consequence of this instrument. Finally, Cordoba received an advance on its coparticipation payments of around $70 million.

An important feature that distinguishes this episode from other provincial crises is that in the case of Cordoba a rather draconian adjustment in the provincial finances was introduced by the new governor[36] (see Dillinger and Webb, 1998). This severe adjustment included the elimination of 14,000 jobs, a reduction of the workday to six hours, and a 10 percent wage cut, plus the transfer of 1,500 health workers to the municipalities without compensation. These cuts reduced the wage bill by $270 million in 1996. In addition, capital spending was cut by 40 percent. The new authorities met the debt with suppliers and public employees by issuing a bond

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[33] Besides, a percentage of coparticipation income was retained by the central authorities in payments of previous loans taken with the baking system.

[34] The critical economic and social situation forced the new administration to take office before the stipulated time.

[35] As a required first step the new administration had to sign the Federal Pact, a move resisted tenaciously by the previous administration.

[36] The new authorities requested a technical mission form the World Bank to analyse a public sector reform proposal. The Bank, through the report "Córdoba-Public Sector Assessment: Proposals for Reform," made recommendations to permanently repair provincial finances. The proposal included the privatization of banks and public enterprises, the transfer of the pension system to the National government, joining the Fiscal Pact, and the RESCATE of CECOR. Of these measures, the provincial government only considered joining the Fiscal Pact.

(CECOR).[37] They also used that bond to pay coparticipation transfers to municipalities (100 percent of municipal coparticipation was paid in CECOR, and the municipalities in turn used them to pay public employees' salaries and other obligations). CECORs could also be used to pay taxes at par value or discounted on the secondary market at 80 percent.

The adjustment was very effective in reverting the important fiscal imbalances of the province in a relative short period of time. By the end of 1995, the deficit was reduced by half compared to 1994, and in 1996 the province achieved for the first time in many years a fiscal surplus (see Table 15). Though relatively successful, the pain that the adjustment inflicted on the population would end up having a cost for the party in government. In 1999 and in spite of a good administration, the Radical party lost the elections to a Peronist candidate, putting an end to a long period of Radical administrations.

Was a Bailout Extended? Was it Significant?

The case of Cordoba is interesting on various grounds. On one hand, there is ex-post intervention by the federal government through some short-term instruments (not originally established to deal with this issues, like the Banco de la Nación's loan) to try to easy a very acute fiscal crisis in a province. This fiscal crisis was caused, in turn, by very irresponsible fiscal behavior that overexposed Cordoba to shocks. This feature makes the episode a clear case of bailout. Still, the amount of money involved in the bailout was relatively small. Though the central authorities provided some assistance ex-post, the province carried out the majority of the adjustment on its own. The total amount of resources received from the center was not that much, especially in relation to Cordoba's size. The province initially received $140 million and, as noted above, the debt overhang in mid-July was around $1,000 million. What factors somehow checked the federal government's ex-post incentives to intervene in a more significant way?

One explanation is that the eventual cost of adjustment, in the absence of major financial assistance from the central government, did not have a close correlation in term of political costs. In this sense, the fact cannot be ignored that the opposition party led the province, so the federal

[37] The issuance of CECOR bonds reached $800 millions. Those bonds had a two-year maturity and 12 percent annual yield, and they were available in months 15, 21 and 24.

government did not perceive any important political cost if it failed to help the province in problems.[38]

A second explanation that must be stressed is that the federal government at that moment had few instruments available to help Cordoba, especially given the amounts of funds required and the fact that the National Administration was itself facing a very difficult situation. As is well-known, the Mexican devaluation generated in Argentina a very fragile situation in the first half of 1995, with a very acute banking crisis. All the efforts of the federal authorities at that moment were geared to prevent the banking crisis from becoming a currency panic which could forced the government to abandon convertibility.

Thus both political and inflation-stabilization commitment considerations significantly reduced the federal government's ex-post incentive to intervene on a large scale. It is therefore not surprising to find that, faced with this situation, the new provincial administration forced the strong adjustment in local finances which was a key ingredient in the solution of the crisis. Thus the size of Cordoba, coupled with the very difficult financial situation at the national level, limited the amount of financial assistance the government could provide without risking national macroeconomic stability. This is true not only of Cordoba, but also of other large provinces such as Buenos Aires, La Pampa or Santa Fe. It is not surprising, then, that those jurisdictions were not included in the financial rescue operations that had benefited other smaller and poorer provinces.

4. Concluding Remarks

This paper concludes with a general assessment regarding the occurrence of bailout episodes between different levels of government in Argentina. First of all, it has been possible to identify several episodes of bailout in the relationship between provinces and the national government, in which jurisdictions were running very unsustainable fiscal policies that at some point brought the province to the brink of bankruptcy. The exact time when the province entered into a serious fiscal crisis was in some episodes prompted by the occurrence of exogenous shocks in the economy, as was the case with the Tequila crisis in 1995. In this regard, the intervention of the federal government nationalizing the provincial pension systems and also in the case of Cordoba

[38] On the contrary, it may have been surmised that when the population suffered the adjustment it would punish the local Radical party (as in fact occurred).

was mainly accelerated by the effect of the Tequila shock on those provinces' finances of those provinces. On other occasions, like in the BOTESO episode, the provinces' fiscal distress was associated with an acute political crisis, which in turn motivated financial and political intervention by the federal government.

In general, however, the federal government did not set up extensive and generous rescue operations. They were more a case-by-case-type solution. Using these mechanisms and negotiations the federal government tried to obtain some benefits (such as provincial adjustment, reforms, etc.) in exchange for the financial help it handed out. Even though the central authorities showed generosity toward some small and poor jurisdictions (as in BOTESO operations involving Corrientes or Santiago del Estero), federal support for other provinces, most notably large provinces such as Cordoba, was much less. In the latter instances the province itself bore most of the cost of adjustment.

What were the reasons for this kind of asymmetry? As noted above, the role of political variables must be emphasized. For instance, in the case of some small jurisdictions the federal government was actually running the province as a result of intervention brought about by local fiscal and political crises. Thus any wrongdoing in the management of local affairs was easily identified with the federal administration, which in turn could have had negative consequence in term of votes. In the case of Cordoba, though, these circumstances did not apply. On the contrary, the opposition party was in charge of the province and the local administration pursued a policy quite independent of what was being proposed at the national level. Thus it was quite clear that the political cost of an eventual crisis was going to be supported mostly by the local Radical administration.

Besides politics, though, it is emphasized that after 1991 the federal government has much less room to accommodate provincial deficits (and of course national deficits). By establishing a currency board arrangement, the Convertibility Law of March 1991 ended inflationary Central Bank financing of public sector deficits. Before this period the federal government was able to accommodate the expansion in provincial expenditures through inflationary financing, but as of 1991 it could not. In this regard, it is not surprising to find that the federal authorities provided extraordinary resources to jurisdiction with serious fiscal problems using, basically, loans, most of which were repaid in full (e.g., BOTESO).

The hardening of the central government's budget constraint resulting from the convertibility law might have been expected to reduce provincial governments' incentives to misbehave. In theory, provincial governments would have anticipated that federal authorities faced strong restrictions on accommodating provincial fiscal deficits ex-post. The bailout evidence presented, though, seems to contradict this prediction.

These findings, however, must be considered in light of the country's economic history. Before convertibility the evidence on bailouts is "contaminated" by the fact that provincial governments (as well as national authorities) always had the option of requesting for inflationary financing; financial crisis was thus avoided by the extraordinary resources that inflation could assure in the short term. Thus the evidence of bailout and fiscal crisis in some provinces described above can be seen as a signal of a new fiscal regime, where if a province deviates from responsible fiscal behavior and falls into fiscal distress, there is no automatic response by the center coming to the rescue. On the contrary, the solution to the crisis is based, in part, on a major adjustment by the involved province.

Appendix A

The analysis of this issue and the empirical application to Argentina will be facilitated if we consider the following stylized model. Consider an economy with a federal government and N local governments. All local governments maximize the utility function of their own representative consumer. Representative consumers in all localities have the same preferences over private c and public goods g, given by

$$E(U(cj) + H(gj))$$

Local endowments are stochastic. The federal endowment is zero, the sole function of the federal government being to redistribute income between localities. The redistribution may serve the purpose of both wealth redistribution and risk sharing.

The budget constraint of the representative individual in region j is,

$$Aj - R - Fj = cj$$

Where,

Aj is provincial output, a random variable

c is private consumption

Rj is local government revenues

Fj is federal government revenues.

Timing

Both government levels decide on their tax rates

Shocks at the provincial level are realized

We assume that both levels of government chose tax rates, but revenues are subject to shocks. This assumption is consistent with the way policy is actually chosen, since fiscal variables are typically decided on parliaments on the basis of tax rates, and very rarely change as on the basis of general aggregate conditions. This is the basis of viewing government debt as an expenditure-smoothing device. Therefore, we assume that

$$Rj=Rj^{*}+\varepsilon j$$

Where Rj* is chosen by the government and εj is a random shock. Let Π be the column vector of the shocks for all j. We assume, for simplicity, that is Π distributed as a multivariate normal with mean μ and variance matrix σ.

Incidentally, note that private consumption is fully determined by government—local and federal—tax rates and the shocks, so the analysis will focus on redistribution and smoothing of the public good only.[39]

The optimal solution from the federal government point of view, once tax rates have been chosen, is to choose transfers Ti to maximize,

$$\Sigma\theta jH(gj)$$

subject to,

$$gj=Rj + Tj$$

$$\Sigma Tj=\Sigma Fj=F$$

given the weights θj. As it is standard in these consumption smoothing models, the optimal solution is to equalize marginal utilities across agents, weighted by the θ's.

$$\theta iH'(gi(s))= \theta jH'(gj(s))$$

for all i,j and all states of nature s.

If we assume that the function H is homothetic, then

$gi(s)= \gamma i,j\ gj(s)$

where $\gamma i,j$ depends on the θ's and the parameters of the utility function. Thus, total government expenditures ought to be proportional for all local governments in all states of nature,

$Ri(s)+Ti(s)= \gamma i,j(Rj(s)+Tj(s))$

Replacing these conditions on the federal government budget constraint

$Tj+\Sigma_{i\neq j}Ti=Tj+\Sigma_{i\neq j} (\gamma i,j(Rj(s)+Tj(s)))=F$

where we leave implicit the conditioning on the state. After some manipulations we arrive at,

$T_j= (1/(1+\phi_j))\ F - (\phi_j /(1+\phi_j))\ R_j + (1/(1+\phi j))R_{-j}$

Where;

$\phi_j=\Sigma_{i\neq j}\ \gamma i,j$

$R\text{-}j=\Sigma_{i\neq j}Ri$

Thus, the transfer to the local government is a linear and increasing function of the federal resources, and the sum of all other provinces local resources, while it is a decreasing function of own local resources, as it is standard in risk sharing models.

Note that the theory provides sharp predictions regarding the relationship among the parameters of the linear restriction and between them and the implicit Pareto weights.

[39] This modeling choice implies that ex-post, there is no substitution of private and public goods. Alternative specifications could provide for the possibility that a local government might choose a lower tax rate to increase private consumption in the locality. This issue is not addressed here.

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