

IV. SUBNATIONAL GOVERNMENT BORROWING IN FEDERAL SYSTEMS: EVIDENCE FROM ARGENTINA AND MEXICO

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PART 1: INTRODUCTION

Subnational government borrowing has received relatively little attention in analyses of federal systems. This paper outlines the principal issues associated with subnational borrowing: the reasons a federation should be concerned with debt accumulation by its member governments, incentives for government borrowing that are specific to federations, and policies for the control of subnational government borrowing.

PART 2: THE EXTERNALITY EFFECT OF SUBNATIONAL BORROWING

Debt accumulation by one member of a federation has a negative externality if it imposes costs on the other members of the federation (such as a higher interest rate). Since the government generating the externality does not bear its cost, there is no incentive for it to take the externality into account when choosing how much to borrow. As a result, from the perspective of the federation as a whole, each federation government will borrow too much.

There are several reasons why the debt of one member of a federation can generate a negative externality for the other members of the federation.¹ Suppose lenders expect that the debt of each member of a federation is guaranteed, either implicitly or explicitly, by the other

members of the federation. The creditworthiness of each member of the federation will then depend on the ability of the other members of the federation to act on this guarantee and this, in turn, will depend on the total quantity of federation debt. Thus, an increase in the debt of one member of the federation increases the liability of the federation as a whole and reduces the creditworthiness of all governments in the federation.

A central government that has guaranteed subnational debt, or does not wish to see a subnational government default, may attempt to reduce the real value of subnational debt, or meet its debt guarantee, through monetization (Beetsma and Uhlig 1999). Lenders will likely expect the probability of monetization to increase with the quantity of subnational debt. Thus, the greater the subnational debt, the larger the risk premium lenders will require on subnational government debt as protection against potential inflation. In this way, increases in the debt of one region raise the interest costs of all regions. Furthermore, if the central government monetizes the debt of one region, the real costs of the inflation caused by this monetization will extend to all regions. Similarly, if the central government assumes the debt obligations of a subnational government, the debt of the defaulting region is shifted onto the central government and, thus, the taxpayers of the federation as a whole.²

Since the liabilities of the member governments of a federation are often denominated in the same currency and have similar risk characteristics, lenders may view the debt of these governments as highly substitutable. As a result, individual federation governments will face an increasing supply of funds schedule that depends on the debt of the federation as a whole. Borrowing by one member government, by increasing the supply of federation debt, will increase the interest rate faced by all governments. This effect may be larger if government borrowing is uncoordinated, resulting in large quantities of debt coming on the market at the same time.

Debt repayment difficulties in one region of a federation may disrupt lending to other regions if lenders perceive problems in one region to be a signal that problems are more likely in other regions. In addition, default by one region, by threatening the solvency of the financial system, may impose real costs on all regions of a federation.

As the regions of federations are generally linked by interregional trade, changes to borrowing levels in one region can have inflation and real-output effects in other regions, particularly if the region making the changes is a large member of the federation. Furthermore, debt accumulation by the individual regions of a federation, particularly larger regions, can influence central government stabilization policy. For example, regional government borrowing, by expanding demand, can put upward pressure on prices and induce contractionary central government demand policies. The costs of these policies, although induced by one region, are imposed on all regions.

Box 1: Debt financed subnational unit spending

Debt financed expansionary policies in the province of Ontario may have induced a more restrictive demand policy on the part of the Canadian federal government during the late 1980s and early 1990s (Shah 1998). In Nigeria, because of the absence of limits on domestic borrowing by the states, central government stabilization policy has had to counter the stimulus of debt financed state spending (International Monetary Fund 2001b).

Discussions of debt accumulation in federal systems generally concentrate on subnational borrowing. However, central government debt accumulation can also generate large negative externalities. A central government that is more heavily in debt is less able to bail out subnational governments, even if it has committed to do so. Furthermore, as the central government debt accumulates, the need for funds to finance the associated debt-service payments may cause the central government to cut transfers to subnational governments. A central government that is heavily in debt is also less able to stabilize regional incomes. In addition, since the central government generally controls the monetary authority, central government debt accumulation raises the risk of debt monetization. Finally, subnational and central governments essentially share the same tax base from which to meet their debt-service commitments. All these

factors are likely to cause lenders to demand a higher risk premium when lending to subnational governments, as the central government effectively increases the size of its debt.³

PART 3: INCENTIVES FOR SUBNATIONAL BORROWING IN FEDERATIONS

Some characteristics of federations can distort government borrowing decisions and encourage excessive borrowing. For example, bailout policies encourage subnational government borrowing by inducing lenders to require a smaller risk premium than in the absence of a guarantee. Debt guarantees and periodic bailouts may also encourage lenders to finance the unsustainable deficits of subnational governments, as in, for example, Brazil (International Monetary Fund 2001a).

The financial systems of some federations are characterized by close relations between subnational governments and financial institutions, some of which are owned by subnational governments. In several cases, this close relationship facilitates unsustainable borrowing by subnational governments that threatens the solvency of the lending institutions, and necessitates central bank intervention to protect the stability of the financial system.

Box 2: Central banks forced to assume subnational debts
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<i>In Brazil, for example, the state governments borrowed heavily from the major commercial banks that they owned. They subsequently defaulted, pushing the banks into insolvency and forcing the central bank to assume the debts of the banks in order to avoid the financial crisis that would have resulted had the banks defaulted (Wildasin 1997).</i>
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According to Ter-Minassian and Craig (1997), the growth of subnational debt has frequently been the result of the inappropriate design of federal fiscal arrangements. In particular, central governments have often transferred rigid spending responsibilities to the

regions without also transferring sufficient revenue.⁴ In some cases, this imbalance has precipitated structural deficits and large, unsustainable borrowing.

Aspects of intergovernmental transfer systems may also encourage subnational government borrowing. Ter-Minassian and Craig (1997) suggest that the growth of subnational debt is frequently the result of an ad hoc transfer system that appears to respond to the ex post financial needs of subnational governments. These types of transfers, by rewarding indebted governments, provide an incentive for debt accumulation and effectively penalize prudent governments. Unanticipated cuts in transfer payments may also lead to increases in subnational government debt since it is often difficult for subnational governments to immediately cut spending in response to a fall in transfers. Future transfer payments, and the proceeds from revenue sharing, can also be pledged as collateral for loans. This can allow subnational governments, as in Argentina and Mexico, to sustain large current borrowing programs.

Box 3: Federal transfers to indebted subnational governments

For example, Germany used federal grants to reduce the debt burdens of some highly indebted lander, while in Italy at the end of the 1970s, the central government assumed responsibility for the debts of municipalities. In the 1980s in Argentina, the central government made discretionary transfers to some provinces, largely for political reasons, in order to finance subnational government deficits (Schwartz and Liuksila 1997). Discretionary transfers have also been used in, for example, Russia, Brazil and China.

Central governments often do not consider the effect of their macroeconomic policies on subnational government finances, even though these policies can have a large impact on subnational budgets by altering output and real interest rates. Real interest rate increases, as a result of central government anti-inflationary policies, were a major factor contributing to the default of several Brazilian states in the mid-1990s (Dillinger and Webb 1999).

A variety of other policies have encouraged subnational borrowing in different federations. In the United States, the federal government subsidizes (and so encourages) state and local borrowing by exempting the interest on state and local bonds from federal income tax. In India, the central government has lent to the states at below-market rates and, thus, provided

an incentive for debt accumulation (Wildasin 1998). In Argentina, provinces were allowed to borrow from provincial banks that would then rediscount the loans to the central bank, effectively giving the provinces access to seignorage (Dillinger and Webb 1999). Central governments have also established forced savings programs from which subnational governments can often borrow at reduced rates.

PART 4: MECHANISMS TO CONTROL SUBNATIONAL BORROWING

Ter-Minassian and Craig (1997) group the methods used to control subnational government borrowing into four broad categories: market discipline, co-operation, rules-based controls and administrative control by the central government.

a) Market discipline

Market discipline uses the free functioning of the market for subnational government debt to constrain subnational government borrowing. As a government increases its debt, the market perceives the risk of default to have risen and, thus, demands an interest rate that is higher than that charged more prudent borrowers. This interest rate increase provides governments with an incentive to limit debt accumulation.⁵ Even if they do not, lenders will eventually refuse further lending as the risk of default rises too high. Thus, the natural operation of the market prevents unsustainable borrowing.

Several key prerequisites are required for market discipline to constrain borrowing (Lane 1993). First, information on the outstanding debt and repayment capacities of subnational governments must be available to lenders. This information is frequently unavailable in developing countries, and, in both developed and developing countries, governments have been adept at disguising the true level of their liabilities.⁶ The undeveloped nature of the subnational

government debt market in many countries means that observable yields on tradable debt and credit ratings, necessary signals for market discipline to be effective, are also unavailable.

Second, if interest rates are to reflect the risk of lending to subnational governments, capital markets should operate freely and regulations should not encourage lending to subnational governments.⁷ In addition, subnational governments should generally be prevented from borrowing from the central bank or government-owned banks as these institutions often do not make market-based lending decisions. Third, there must be sufficient competition in financial markets to ensure that lenders make prudent decisions. Fourth, the financial system must be able to survive the failure of a major lender or borrower (Bayoumi et al. 1995). Finally, governments must respond to market signals, which they may not do if they have a short time-horizon or if political accountability is weak. In addition to the conditions cited above, market discipline requires, most importantly, a credible no-bailout policy so lenders have an incentive to impose discipline on subnational borrowers.⁸ Credibility may, however, be difficult to establish if lenders and borrowers believe that the central government would not allow a subnational government to default, particularly the government of a large region.⁹ If the no-bailout rule is not credible, lenders will be less prudent and market discipline less effective.

In addition to its stringent prerequisites, market discipline does not impose the cost of the externality associated with borrowing on the borrower and, therefore, does not yield the optimal level of debt, just a sustainable level (Lane 1993). Furthermore, as the Canadian case indicates, market discipline does not stop governments from amassing large quantities of debt (Canadian provincial debt was just under 25 per cent of GDP in the mid-1990s, a high level relative to countries with more direct controls on borrowing).

b) Co-operation

Under co-operation, the governments of a federation jointly decide on the level of borrowing that each member government will undertake. In some cases, in order to ensure that the agreement is maintained, all borrowing is carried out by the central government and the proceeds forwarded to the subnational authorities.¹⁰ The benefits of the co-operative approach are that the timing of debt issues can be co-ordinated, and debt externalities and the macro

consequences of borrowing decisions can be taken into account when determining subnational borrowing levels.

The success of co-operation depends on the willingness of governments to co-operate. If agreement is not reached, either the system will break down or the central government (or a large region) may impose an agreement (effectively centralizing the decision process). A further problem is that short-sighted governments may jointly agree to unsustainable increases in debt. Even if co-operation yields agreement on prudent levels of borrowing, as with all rules, governments can often use creative means, particularly off-budget accounting, to evade the agreed limit. The Australian states were so successful at avoiding the limits imposed on them that several experienced severe debt crises in the early 1990s.

c) Rules-based controls

Two types of rules-based controls, embedded in the constitutions or laws of national or subnational governments, have been used to control government borrowing. The first type of rule imposes a limit on the overall debt-GDP, deficit-GDP or debt service ratio. The second type of rule involves prohibitions on borrowing of certain types. These include subnational borrowing from abroad (as in India and Nigeria) or in foreign currency (as in Mexico), from the central bank (as in the European Monetary Union – EMU) or from state-owned banks (as in Brazil), or to cover current expenditures. While some rules specify procedures for dealing with violations, quite often requiring repayment in a year, only the EMU appears to have a mechanism that can fine member states, under certain circumstances, if they exceed the borrowing limit. The most successful rules are transparent and include a comprehensive and clear definition of debt, require adequate reporting of liabilities and impose strict limitations on the use of off-budget debt.

There are several advantages to rules-based controls. They avoid bargaining between governments and, if properly designed, can impose fiscal discipline. Since the verification of rules requires proper debt accounting, the fiscal position of governments is clear to both voters and the market. This may restrain demands for more services and promote market discipline.¹¹

Rules-based borrowing controls are, however, beset by numerous difficulties. There are no well-defined criteria that can be used to determine the optimal borrowing limit. Rules may

also induce governments to maintain large reserve accounts, a practice that may be less efficient than periodic borrowing to cover revenue shortfalls. Rules may constrain the ability of governments to smooth consumption and may encourage pro-cyclical behaviour on the part of subnational governments. The inflexibility of many subnational government spending commitments may cause cuts to be made on the basis of flexibility rather than efficiency. In addition, cash flow problems associated with stringent borrowing restrictions can disrupt government operations. Rules that restrict borrowing to investment finance require a precise definition of investment and may divert funds toward projects that have a lower return than current spending. If subnational governments provide transfers to local governments, rules that limit subnational borrowing can lead to cuts in local transfers, effectively shifting any revenue imbalance to the local level. If the rule is not comprehensive, it will be ineffective at controlling debt accumulation and may induce governments to borrow through more expensive channels. Finally, governments have been extremely adept at finding ways to circumvent most rules.

Box 4: Rules for controlling borrowing

Methods used include arrears to suppliers, borrowing from state-owned financial intermediaries or through government corporations, loan guarantees to private firms, bank loans to pseudo-government agencies that supply services to the government, contracting out of public investment and sale and lease-back arrangements. Note that New York City defaulted in the 1970s, despite having a constitutional balanced-budget rule (Lane 1993).

d) Administrative control by the central government

In some countries, the constitution gives the central government the power to control subnational government borrowing. The types of controls used are similar to the rules-based controls cited above. The principal differences are that central government administrative controls are often subject to change (either as a result of political pressure or to support central government macroeconomic policy¹²), the central government may require prior approval of all subnational government borrowing, or the central government may undertake all borrowing itself and then distribute the borrowed funds to subnational governments for purposes approved by the centre. Rather than being an objective constraint, central government controls may vary in

response to need, ability to pay or political factors. Successful administrative controls operate quickly, are transparent, easy to understand and monitor, are not arbitrary and facilitate planning.

The advantages of centralized control are that it allows the externality associated with borrowing to be taken into account, it can co-ordinate borrowing and it can integrate subnational borrowing into national macroeconomic policy. As foreign lenders often require an explicit guarantee of subnational government debt by the central government, direct control lets the central government determine the debt for which it is ultimately responsible.

Most of the problems associated with rules-based controls also apply to administrative controls, although there are additional problems that are specific to these controls. The principal disadvantage of central government control is that it limits the decision-making power of subnational governments. This negates one of the important benefits of decentralization and, potentially, can retard the development of responsible subnational government. Furthermore, pre-approval of borrowing and centralized intermediation involves the central government in monitoring micro-level regional decisions. This is expensive, can lead to delays and is beyond the capabilities of many developing countries. Administrative control of borrowing is often not transparent or predictable and can make regional government planning uncertain and costly. Administrative controls may also be determined more by political than economic considerations. Furthermore, borrowing limits that are not embedded in strict laws can be perceived by subnational governments as being negotiable, causing them to act as if the limit is not binding.¹³ Finally, by involving the central government directly in the subnational government borrowing process, administrative controls may be taken by lenders to be an implicit guarantee of subnational debt (Shah 1998).

PART 5: BEST PRACTICES

The available evidence indicates that subnational government debt accumulation can generate externalities, that specific characteristics of federations may encourage excessive borrowing and that there are significant shortcomings with the mechanisms typically used to

control subnational borrowing. There do, however, appear to be some policies that can reduce the likelihood of excessive borrowing.

Since market discipline does not take account of debt externalities and, in most countries, the prerequisites for market discipline do not hold, some form of borrowing rule is required to limit subnational borrowing. As both the co-operative approach and administrative control by the central government are characterized by problems that make them unworkable or undesirable in most countries, a strict rules-based approach to subnational government debt control is likely to be most effective.

To be successful, any rule should incorporate a comprehensive and clear definition of debt and outline the required response (and penalty) if a subnational government fails to satisfy the rule. In order to increase the likelihood of success, as well as reduce the likelihood of inflation and instil market discipline, the rule should prohibit subnational government borrowing from the central bank or state-owned banks.¹⁴ In many developing countries, this will require the simultaneous introduction of policies to develop a market for subnational government debt.

While it is less likely that subnational governments will default if their borrowing is limited by a debt accumulation rule, the central government should, nevertheless, introduce an explicit no-bailout policy. It may take time for this policy to become credible and governments may not be able to avoid a bailout in all circumstances. However, the central government should ensure that a bailout comes with significant costs for the defaulting regional government and, as a condition for bailout, should specify policies that will alleviate the factors that caused the default.

The intergovernmental transfer system should be modified to prevent large variations in transfers and eliminate discretionary transfers. The central government should also consider the impact of its macroeconomic policy on subnational government balance sheets and modify other policies that may subsidize or encourage subnational borrowing.¹⁵

In many developing countries, subnational governments have shortages of workers skilled in public expenditure and revenue management, and a major cause of unsustainable borrowing has been poor financial management, as in Brazil (Ter-Minassian 1997).

Improvements in financial management are, therefore, an important ingredient in the control of subnational borrowing.

Control of subnational borrowing, by a rule or any other means, is impossible if, as in many developing countries, information on subnational government finances is unavailable, out of date or of poor quality. Thus, it is imperative to improve access to this information. Adequate reporting of government liabilities would also support market discipline and improve government accountability. The problem of excessive subnational government borrowing, in many developing economies, may be more a problem of weak political institutions and accountability than a characteristic of the federal system. Improvements in accountability depend critically on the availability of information on government finances.

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1. See Ter-Minassian and Craig (1997) and Landon and Smith (2000) for further discussion.
2. As when the Brazilian government bailed out the state of Minas Gerais in 1999 (Giugale et al. 2000).
3. There is only a small empirical literature that attempts to verify the existence of debt externalities in federations. While Capeci (1991) finds no evidence of debt externalities using US municipal data, Landon and Smith (2000) find negative, but small, spillover effects between the Canadian provinces, except for borrowing by the largest province. Landon and Smith (2000) also find evidence that the growth of Canadian federal government debt had a strong negative effect on the creditworthiness of the provinces.
4. This was one problem afflicting the states in Brazil (International Monetary Fund 2001a).
5. While considerable evidence indicates that interest rates depend on debt levels (Bayoumi et al. 1995), Lane (1993) suggests that there is no strong evidence that governments reduce borrowing

in response to higher interest rates. However, studies of the US state and municipal bond market have found that the supply of bonds is quite interest-sensitive (Capeci 1994, Metcalf 1993).

6. While states in Nigeria can borrow without limit from domestic bank and non-bank sources, there is no reliable comprehensive data on the debt levels of the Nigerian states (International Monetary Fund 2001b).

7. These would include regulations that require financial intermediaries to hold a certain portion of their assets in government bonds or forced-savings programs that are required to invest in government assets.

8. In Argentina, previous bailouts gave lenders the impression that the provinces could not fail (Shah 1998). Similar impressions were left by central government bailouts in Brazil. In Mexico, states and banks had come to expect federal bailouts, as there had been many of these, and states perceived these bailouts as a way of extracting funds from the central government (Giugale et al. 2000).

9. The size of the Sao Paulo state debt made the Brazilian government unwilling to let it default, as default would have threatened the stability of the entire banking system (Dillinger and Webb 1999). Giugale et al. (2000) suggest that the externalities associated with default, the impact on the credit ratings of all governments in the federation and the risk to the financial system, make bailout inevitable in many cases.

10. Australia is the most frequently cited example of a country that used this approach. See Craig (1997) for details.

11. Poterba (1994) provides empirical evidence that US states with tighter constitutional or statutory rules adjust their spending more quickly to revenue shocks than do other states.

12. In federations, borrowing limits can be a major instrument of macroeconomic management (Potter 1997).

13. In China, the central bank imposes credit limits on the provinces at the beginning of the year, but these are often revised upward during the year under pressure from the local authorities (Shah 1998).

14. Brazil did this by passing a law that prevented the states from borrowing from their own banks.

15. Several of these policies have been introduced in Mexico (Giugale et al. 2000). The Mexican government imposed a no-bailout rule, renounced the use of discretionary transfers and linked the capital risk rating of banks to their subnational debt exposure and the credit ratings of the subnational governments.