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Subnational Borrowing and Debt Management

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As a result of political opening and administrative decentralization, subnational governments in Mexico are demanding fiscal autonomy in order to improve their access to financial markets. But because the move toward fiscal decentralization is so recent, the allocation of fiscal responsibilities and borrowing autonomy among levels of government (federal, state, and municipal) is still being developed. State governments in Mexico have as yet limited flexibility in fiscal decisions, which limits their capacity to borrow for public investments. After several past attempts at reform, a new innovative regulatory system for subnational borrowing is being implemented which combines market discipline with rules.

Subnational Debt

The growth of subnational spending for public services and capital investments (in health, education, and basic infrastructure) does not yet pose a major threat to Mexico's macroeconomic stability. This distinguishes Mexico's experience from that of other large Latin American countries, notably Argentina and Brazil (Dillinger and Webb 1999; Burki, Perry, and Dillinger 1999).

Nevertheless, Mexico's subnational government debt grew from $Mex27 million in 1994 to $Mex71.6 million in 1998 (see table 6.1 which includes debt of both direct and indirect administrations, but not contingent debt). The 1994–95 financial crisis, and the ensuing increase in interest rates, expanded the states' debt stock in real as well as nominal terms, but the bailout package put in place by the federal government in 1996–97 reduced it considerably (figure 6.1). In 1997 subnational government debt represented 25 percent of the debt owed or guaranteed by the Ministry of Finance and

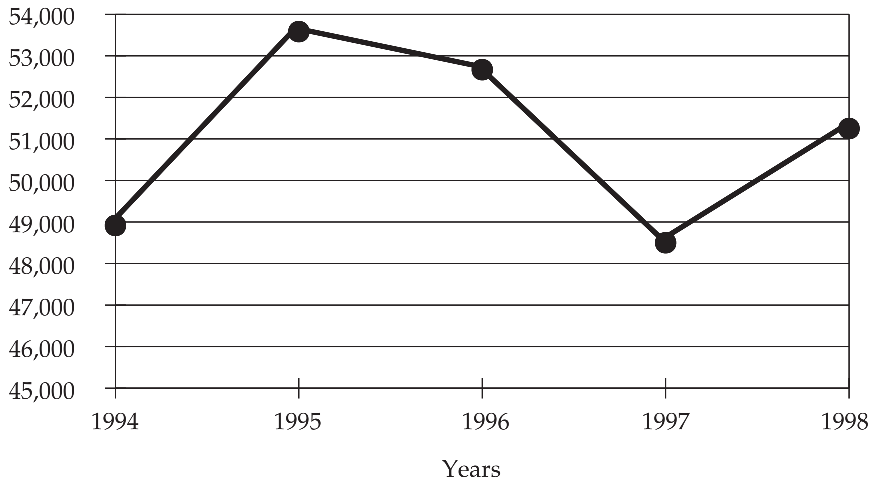
Public Credit (Secretaría de Hacienda y Crédito Público, SHCP), 10 percent of total public debt (including Banco de México debt), and only about 2 percent of national GDP. This compares favorably with Argentina, where subnational debt is 6 or 7 percent of GDP, and with Brazil, where it approaches 20 percent (Dillinger and Webb 1999).

Table 6.1. Mexico: Total Debt, 1994–98 (Millions of Pesos)

State	*1994*	*1995*	*1996*	*1997*	*1998*
Mexico	4,843	8,643	13,396	16,609	185,74
Nuevo Leon	2,348	6,427	5,463	6,706	7,470
Jalisco	2,811	3,371	3,876	4,006	4,418
Sonora	3,150	4,869	6,085	3,672	3,990
Sinaloa	873	1,337	1,677	1,931	2,212
Chihuahua	921	1,215	1,538	1,689	1,593
Baja Cal. Norte	999	960	1,214	1,380	1,528
Guerrero	515	858	983	1,168	1,255
Queretaro	1,282	1,090	1,016	1,061	1,163
Quintana Roo	450	643	740	842	1,009
Chiapas	1,024	992	1,088	961	931
Durango	552	462	606	713	806
San Luis Potosi	345	426	543	599	708
Coahuila	515	926	1,116	593	666
Tabasco	518	343	411	431	598
Guanajuato	405	411	464	517	569
Puebla	156	321	308	351	478
Baja Cal. Sur	304	296	350	450	452
Morelos	144	232	244	365	399
Yucatan	305	288	320	372	290
Tamaulipas	368	531	363	315	279
Oaxaca	260	147	192	202	261
Michoacan	249	256	251	216	251
Campeche	499	460	518	419	228
Aguascalientes	364	307	339	287	227
Colima	191	263	291	237	192
Zacatecas	123	380	468	235	136
Nayarit	222	187	178	115	104
Veracruz	348	379	262	78	52
Hidalgo	22	14	16	12	10
Tlaxcala	136	52	0	0	0
Subtotal	25,255	37,099	44,329	46,545	50,864
Fed. District	1,703	2,772	8,322	11,958	20,763
Total	26,958	39,872	52,652	58,503	71,627

Source: SHCP data.

Figure 6.1. Mexico: Subnational Governments' Total Outstanding Debt (1996 Prices)



Source: SHCP and authors' calculations.

Although subnational government debt continues to benefit from the effects of the 1995–96 bailout package, it recently began to increase considerably. Subnational debt increased 5.6 percent in real terms in 1998, mainly as a result of primary fiscal deficits of the Federal District (development and contractual debt with the commercial banks for the metro), the State of Mexico (development and contractual debt with commercial banks for the Atlacomulco Highway), the State of Guanajuato (bonds issued to pay for toll roads), and municipalities of Mérida (bonds) and Garza García (commercial and contractual debt with commercial banks for the construction of a tunnel linking this city to Monterrey).

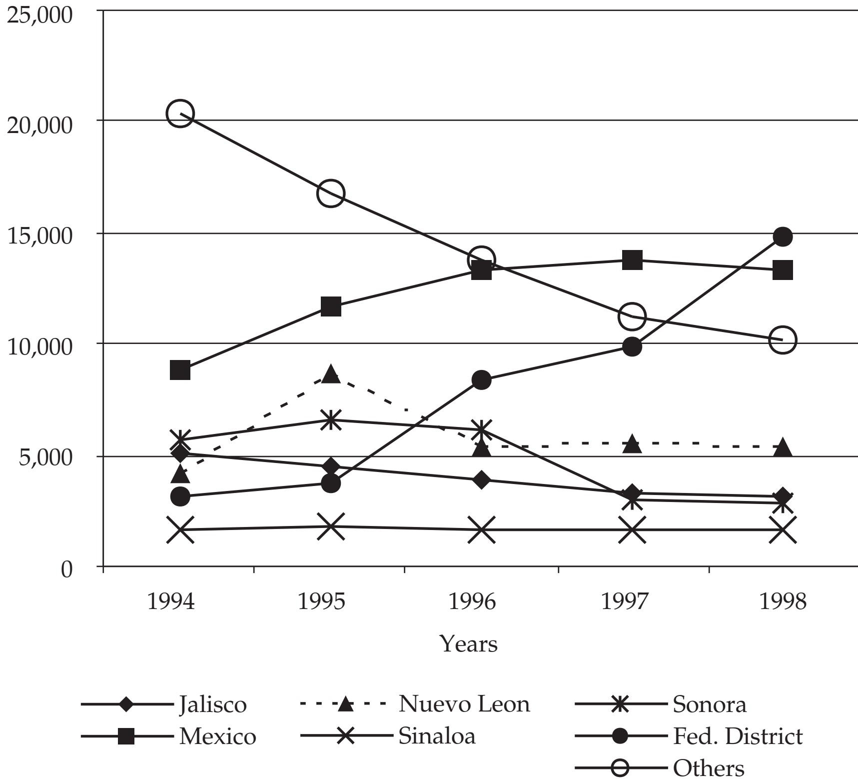
Although it is expanding, subnational indebtedness does not yet threaten Mexico's macroeconomic management, because its share in the portfolio of the financial system is still relatively small. Two factors explain the relatively small size of aggregate subnational debt. First, subnational governments' access to capital markets is limited by their lack of borrowing capacity.[1] Second, the frequent implicit and explicit bailouts by the federal government softened subnational governments' budget constraints before their fiscal shortfall became a debt; that is, the federal government absorbed their potential debts. The first factor, a consequence of the architecture of Mexican fiscal federalism, indicates that reforms are needed to

accord subnational governments adequate access to capital markets. The second factor was a consequence of ad hoc interventions by the federal government through ex post, extraordinary, and discretionary transfers. This second factor, in general politically motivated, indicated that the intergovernmental relationship in Mexico still embodied many channels that lead to moral hazard incentives. The federal government has acted in 1999-2000 to correct both factors by establishing a new market-based regulatory framework for subnational borrowing. This framework is explained in detail later on.

The subnational debt in Mexico is concentrated in a few states (see figure 6.2). During 1994–98, out of the nation's 32 states, six (Federal District, Jalisco, State of Mexico, Nuevo León, Sinaloa, and Sonora) were responsible for four-fifths of the subnational debt outstanding (table 6.2). Among

Figure 6.2. States' Real Debt, 1994–98

At 1996 prices (pesos)



Source: Authors' calculations fron SHCP data.

these six entities, the Federal District, State of Mexico, and Nuevo León continued to expand their debt after the federal debt relief operation; the others, as a group, reduced their real stock of debt and their share of total debt.

The ratio of debt to revenue reflects an important aspect of financial vulnerability, but its relevance depends on the degree of fiscal autonomy of the states.[2] Therefore, the concept of revenue, for this particular purpose, should exclude all received transfers tied to nondebt expenditures. Table 6.2 shows the states according to three types of debt ratios: debt to total revenue, debt to disposable revenue, and debt to own revenue. Great dispersion is observed in the degree of indebtedness among states in any of these concepts, more so in the case of own revenue. Debt to disposable revenue, which includes only own revenue and unconditional transfers (Ramo 28), indicates that the degree of indebtedness varies from a maximum of 4.1 (Sonora) to a minimum of 0.02 (Hidalgo). The Federal District is ranked among the least indebted states, because of its relatively large capacity to collect own revenue. The eight most indebted states are Sonora, Nuevo León, State of Mexico, Querétaro, Quintana Roo, Baja California Sur, Jalisco, and Sinaloa, all with debt ratios greater than 1. The solvency and capacity to pay for debt in the medium term require analysis for the first three states, in particular.

Excessive indebtedness may have equity implications. In Mexico there is a clear, positive correlation between state indebtedness and state per capita GDP. Therefore, debt bailouts are likely to be regressive, since financial relief tends to go to richer-than-average states.

Fiscal Imbalances and Debt Accumulation

The stock of debt and the degree of indebtedness alone do not reveal the financial weakness of the Mexican states. In fact, the relatively "small" size of the outstanding debt of subnational governments in Mexico does not correspond to the capitalization of their past "large" fiscal deficits. The reason is that a substantial portion of their fiscal deficits has been repeatedly relieved by the federal government through extraordinary, discretionary transfers (to cover unanticipated wage increases, investment expansion, and so forth) and other forms of bailouts (the 1995 ad hoc transfers for debt reduction and rescheduling).

Since 1989 the aggregate fiscal deficit of states has always been larger than the sum of increases in indebtedness and changes in liquid assets of the states. The systematic federal government interventions to fill the financial gaps reveals the soft side of states' budget constraints. Figure 6.3 shows the evolution of the states' primary surplus or deficit and its financing. The states' fiscal stance deteriorated precipitously until 1993 (when the aggregate primary deficit reached 0.4 percent of national GDP). Since 1994 the situation has improved, and the statistics even show a primary surplus in 1995.

Table 6.2. Mexico: Total Debt, 1994–97 (Debt/Revenue Ratio in Descending Order of Total Debt)

	Total revenue		*Disposable revenue*		*State-own revenue*	
	1994	*1997*	*1994*	*1997*	*1994*	*1997*
México	1.0	0.9	1.0	1.4	5.9	9.6
Nuevo León	0.8	0.8	1.0	1.2	2.9	4.8
Sonora	1.1	0.6	1.6	1.1	4.4	6.6
Baja California Sur	0.5	0.4	1.2	0.8	16.7	12.4
Querétaro	0.9	0.3	1.6	0.7	6.9	4.9
Quintana Roo	0.6	0.4	1.1	0.7	5.2	2.9
Sinaloa	0.4	0.4	0.7	0.7	5.5	4.5
Aguascalientes	0.4	0.2	0.7	0.6	3.8	3.2
Jalisco	0.8	0.3	0.8	0.6	3.9	3.6
Baja California Norte	0.6	0.4	0.7	0.5	3.1	2.3
Chihuahua	0.3	0.3	0.6	0.5	2.0	1.6
Durango	0.8	0.2	0.9	0.5	8.7	5.0
Guerrero	0.2	0.5	0.4	0.5	2.9	3.4
Campeche	0.5	0.2	0.9	0.3	8.1	1.6
Colima	0.3	0.2	0.6	0.3	5.6	4.2
San Luis Potosi	0.3	0.3	0.4	0.3	5.2	6.5
Chiapas	0.2	0.1	0.6	0.2	3.6	0.9
Coahuila	0.2	0.1	0.4	0.2	2.1	1.4
Morelos	0.1	0.1	0.2	0.2	0.6	1.2
Yucatán	0.3	0.2	0.4	0.2	2.8	1.5
Zacatecas	0.2	0.1	0.2	0.2	2.0	2.7
Guanajuato	0.1	0.1	0.2	0.1	2.0	0.6
Michoacán	0.1	0.0	0.2	0.1	1.8	0.6
Nayarit	0.2	0.0	0.5	0.1	2.9	0.8
Oaxaca	0.1	0.0	0.3	0.1	5.7	1.1
Puebla	0.0	0.1	0.1	0.1	0.5	1.0
Tamaulipas	n.a.	0.1	n.a.	0.1	n.a.	0.7
Hidalgo	0.0	0.0	0.0	0.0	0.3	0.1
Tlaxcala	0.2	0.0	0.3	0.0	2.9	0.0
Veracruz	0.1	0.0	0.1	0.0	1.3	0.2
State average	0.4	0.3	0.7	0.6	3.7	3.4
District federal	0.1	0.4	0.1	0.4	0.2	0.6
Overall average	0.4	0.3	0.5	0.5	1.6	1.8

Source: SHCP and authors' calculations. Data for Tabasco are not available.

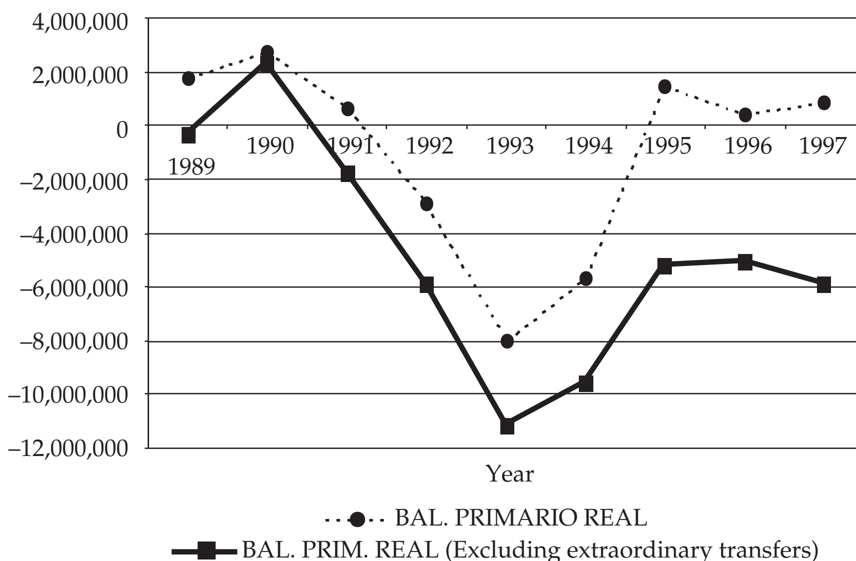
However, a closer look into the data reveal that during 1995–97 the states as a group were not generating a primary surplus before the extraordinary transfers, which should properly be counted as a financing item (below the line) not a revenue component; and that the primary *deficits* continued deteriorating even after 1995, because the debt restructuring did not lead, in

most cases, to any effective fiscal adjustment in the states' budget *flows*. The financial deal involved basically a debt *stock* relief, and it did not resolve the structural fiscal imbalances. As a consequence, the fiscal stance of some Mexican states was not sustainable at least up to 1997, and they need serious fiscal adjustment.

The distance between real primary balance and real primary balance excluding extraordinary transfers basically shows the size of the bailout that benefited the states after 1995. Figures 6.4 through 6.9 depict the fiscal stance of the most indebted states and the Federal District. On the one hand, the states of Mexico and Sonora have been experiencing some fiscal improvements in the past two years, although they are still operating with insufficient primary surplus to sustain their high level of current indebtedness. On the other hand, the other states did not adjust up to 1997 and continued to increase their primary *deficits* up to that year. The states mostly improved their direct fiscal positions in 1998–99 as the extraordinary federal transfers phased out. These statistics do not reveal some important contingent liabilities for subnational governments; such as guarantees to public enterprises and pay-as-you-go pension and health schemes for state employees. Still incomplete estimates reveal that the size of outstanding contingent debt is daunting.

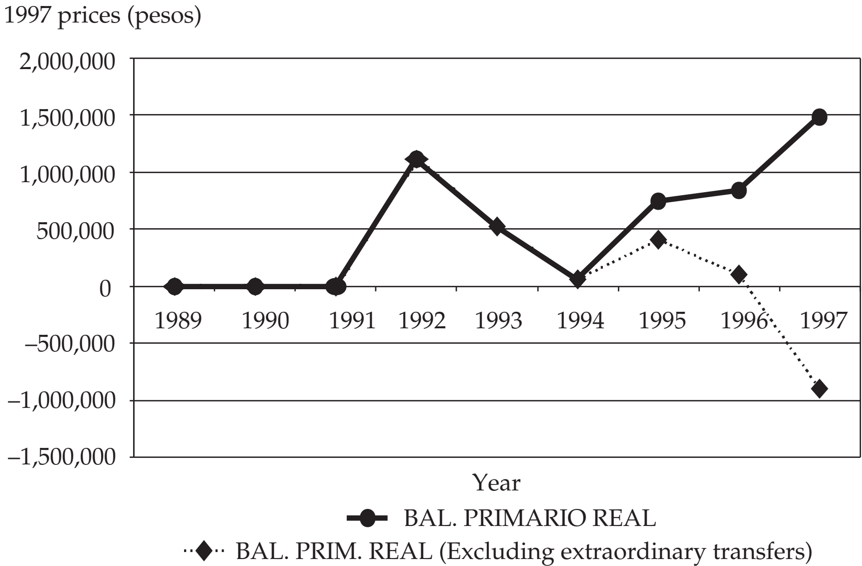
Figure 6.3. Mexico: Aggregate Subnational Governments' Fiscal Deficit, 1989–97

1997 prices (pesos)



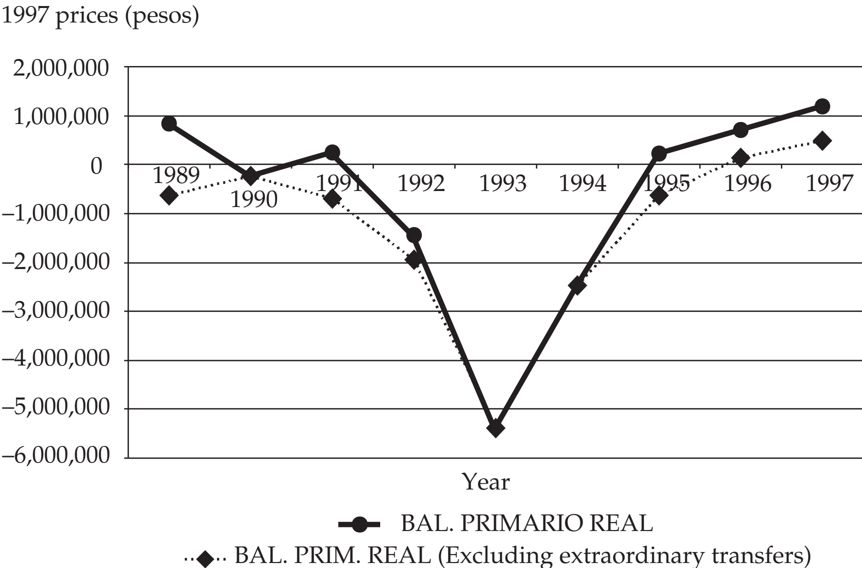
Source: Authors' calculations from SHCP data.

Figure 6.4. Jalisco: Fiscal Deficit, 1989–97



Source: Authors' calculations from SHCP data.

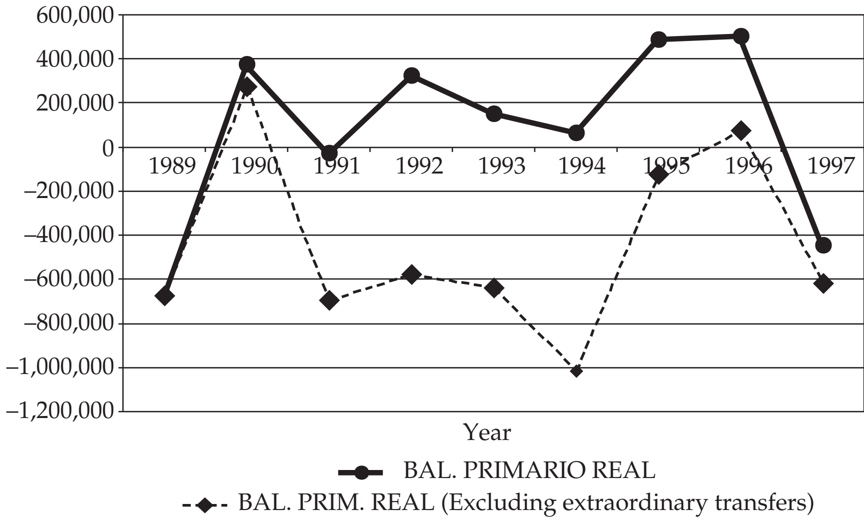
Figure 6.5. State of Mexico: Fiscal Deficit, 1989–97



Source: Authors' calculations from SHCP data.

Figure 6.6. Nuevo Leon: Fiscal Deficit, 1989–97

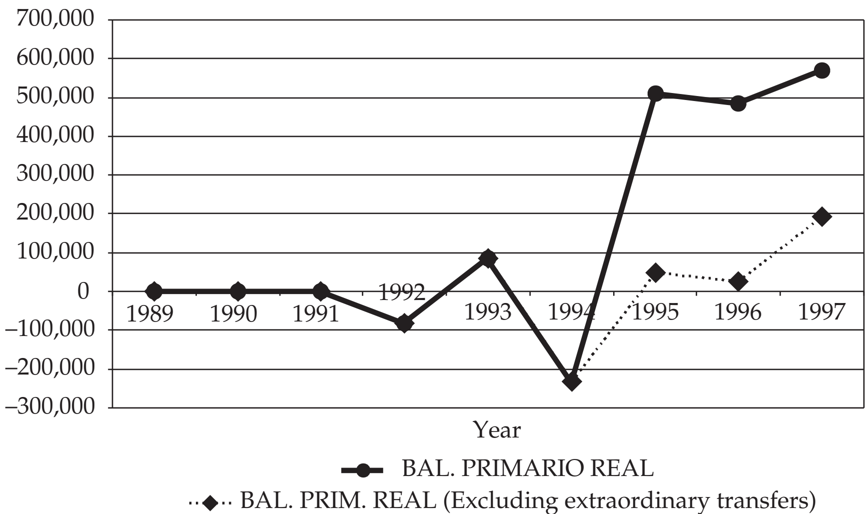
1997 prices (pesos)



Source: Authors' calculations from SHCP data.

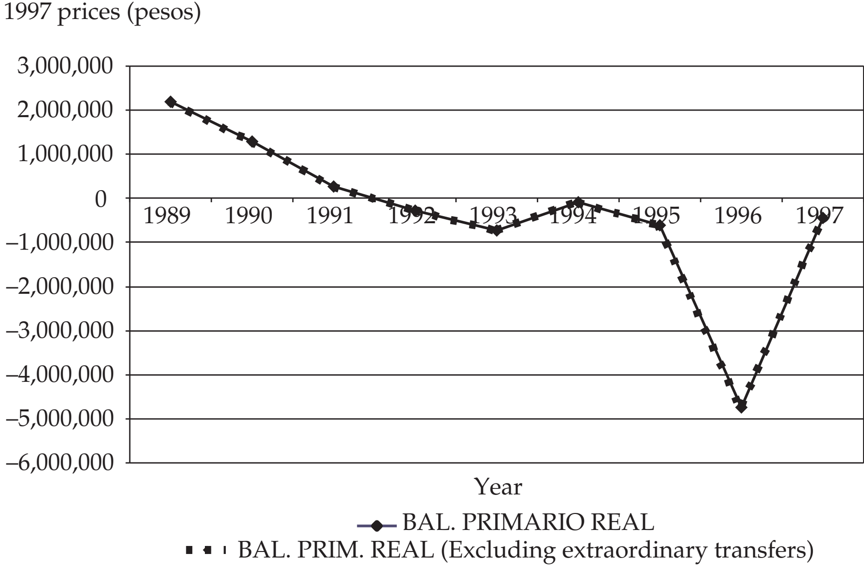
Figure 6.7. Sonora: Fiscal Deficit, 1989–97

1997 prices (pesos)



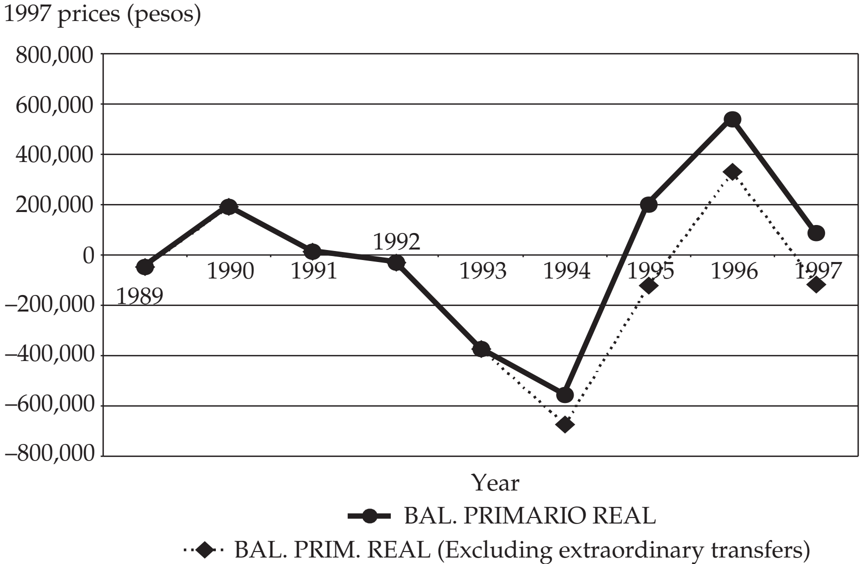
Source: Authors' calculations from SHCP data.

Figure 6.8. Federal District: Fiscal Deficit, 1989–97



Source: Authors' calculations from SHCP data.

Figure 6.9. Sinaloa: Fiscal Deficit, 1989–97



Source: Authors' calculations from SHCP data.

Subnational Borrowing: The Experience Up to 2000

Subnational governments can borrow mainly from development banks (38 percent in 1997) and commercial banks (62 percent). Other sources are available but rarely used by the states. The State of Guanajuato used bonds to finance construction of a road in 1997. The bond is guaranteed by the fees charged for use of the road. A fund (*fideicomiso*) was created to collect all the road revenues. The total amount of the issue was $Mex84 million. The capital of Yucatán (Mérida) has also issued a municipal bond. These are the only recent subnational experiences with bonds. The municipality of Garza García in Nuevo León, which is contiguous to Monterrey, needed a tunnel to connect two municipalities separated by a mountain. The government of Garza García, in coordination with the state government, put this construction to a referendum proposing that a property tax surcharge in Garza García be instituted for seven years to finance the construction. People in the municipality passed the referendum, and the municipality borrowed the resources from a commercial bank (Bancomer) using the property tax surcharge as a guarantee.

The Institutional and Legal Design

The institutional and legal design of the National Fiscal Coordination Law is important because it contains the incentives for both creditors and borrowers; some of those incentives are not desirable.

Subnational government borrowing is partly regulated by the national Constitution. The Federal Congress has the power to establish the bases on which the executive branch may arrange loans and take responsibility for public debt. All subnational governments must respect the criteria contained in Article 117, Section 8, for states; and Article 115, Section 6, for municipalities. The Constitution states that subnational governments can borrow only in Mexican pesos and only from Mexicans, and they can borrow only for productive investments. As a result, Banobras—a federal government development bank—and other financial institutions have found a way to lend in pesos with funds obtained in foreign currencies from international financial institutions, taking the exchange risk.

The details for guaranteeing credits are contained in Article 9 of the National Fiscal Coordination Law, created in 1980, which states that subnational governments can borrow from commercial and development banks to finance investment projects only after receiving authorization of the local congress. This law also states that around 20 percent of federal tax revenue must be transferred to state and local governments (that is, Mexico has a revenue-sharing system). In fact, the main source of revenue for subnational governments comes from federal transfers (*participaciones federales*), which, on average, account for about 85 percent of their total income.

Before a reform implemented in January 1997, after the tequila bailout, Article 9 allowed states and the Federal District to use their federal transfers as collateral. In case of arrears or a threat of default, the federal government would deduct debt service payments (on registered debt) from revenue sharing before the funds were transferred to states each month. This arrangement began in the 1980s when the banking system was nationalized.

Each year the state government would propose the debt level, and the state congress would approve the ceiling. This included the debt of municipalities. Municipalities, in principle, could incur debt, but the state had to guarantee it. That is why the state congress had to approve municipal debt.

The institutional arrangement before the 1995 crisis was simple. For *participaciones* to be used as collateral, states only needed to register the new debt contract with the SHCP, after receiving authorization from the local congress. This debt was backed by *participaciones.* SHCP could, in principle, deny the new debt and thus control the indebtedness of subnational governments, but this rarely happened.

This legislation had two implications for the behavior of suppliers and debtors. First, banks had incentives to make loans to subnational borrowers, because the credit risk was virtually nil, being guaranteed by the federal government. Second, states had incentives to borrow because the federal government would always bail them out. The latter is explained as follows.

Provided that federal transfers were the main source of revenues for the states and that current expenditures represented an average of nearly 80 percent of total expenditures, most of the disposable income of states and the Federal District was *tied*. This means that, if their revenue-sharing transfers were diverted to service debt, they would not be able to operate; this in turn brought high political costs at both the local and federal levels. Consequently, the federal government saw no alternative but to bail out the defaulting state by making the payments without deducting the amount from *participaciones*. This was typical when a commercial bank exercised a cross-default acceleration clause that would completely use up the state's *participaciones* or leave it without enough to pay for essential services.

These two points could explain in part the overborrowing in subnational credit markets and the lack of an explicit local regulation for borrowing or the lack of an obligation to present or publish financial statements. This, in principle, made it very difficult for lending institutions to evaluate a project. Until 1999 lending institutions rarely conducted an evaluation because the credit was risk-free.

When credit is not rationed and markets are competitive, economic theory suggests that spreads should be very small, reflecting only adminis-

trative costs. This is not the case in Mexico, where spreads are as high as 10 percentage points (see figures 6.4 through 6.9). In the absence of the possibility of a bailout, economic theory further predicts an equilibrium with credit rationing, where banks would be forced to evaluate the risk of a project, which in turn would force states to disclose information, both of which would promote market discipline.

To induce market discipline in subnational borrowing, Article 9 of the National Fiscal Coordination Law was reformed in 1997 to confer new obligations on state and local governments. Subnational governments could still use debt to finance their investment projects, and many still use their federal transfers as collateral. However, banks could not ask the Treasury Department to discount the corresponding amount from a defaulting state's federal transfers. They had to arrange the collateral according to state debt laws; that is, both parties had to create a repayment mechanism. In other words, subnational governments were responsible for repaying their contracted debts when federal transfers were used as collateral. In addition, they were obliged to publish their level of debt, and in turn, banks had to evaluate the risk of a project.

The modification had two purposes: to force states to exercise financial discipline and to force banks to analyze project risk when making a loan. These changes, in principle, were intended to induce discipline in subnational credit markets in three ways: (a) agents would respond to changes in interest rates; (b) states and local governments would define mechanisms under which borrowing is optimum and would be forced to present their financial statements when soliciting a credit; and (c) the possibility of a bailout would be reduced significantly because the federal government would be kept out of the market.

Did the Modification of the Law Induce Market Discipline?

Article 9 of the National Fiscal Coordination Law was modified to induce market discipline (a necessary but not sufficient condition for avoiding subnational bailouts). Its impact cannot be evaluated, however, because the changes it sought to impose were effectively circumvented.

After modifying Article 9 in January 1997, subnational governments had difficulty obtaining credit, especially from commercial banks. For this reason, in 1997 the federal government and the states designed a temporary scheme by which states would give the federal government a mandate to deduct debt service from *participaciones*. Under the mandate, banks were not forced to take losses, and they did not have incentives to evaluate the risk of the credit because they could obtain the *participaciones* independently of project evaluation. These actions, which were contrary to the spirit of the modified Article 9 (originally intended to instill discipline in the credit

markets) also perpetuated the moral hazard problems. As long as the federal government stayed involved in the bank-subnational transaction, it was perceived as a guarantor in subnational credit markets.

Thus, in spite of the well-meaning reforms of January 1999, several weaknesses remained in the regulatory system for subnational borrowing. These weaknesses, which were addressed in a subsequent wave of reforms in early 2000 (see next section), included:

- Commercial banks still did not have an incentive to evaluate project risk because they were not effectively required to take any losses. This comes from the mandate given to SHCP. Most debt was issued by commercial banks. This debt was cheaper, but commercial banks did not evaluate the risk of the project and thus issued credit much faster than development banks, which did evaluate risk.
- `States and municipalities until at least 1998 still saw SHCP as the provider of last resort. This changed to some extent in 1999, when Ramo 23 virtually disappeared as a source of discretionary transfers. Ramo 23 was intended as a discretionary account of the president. Recently, a new fund was created for natural disasters, and another was created for wage increases. Ramo 23 could be used to help out states, and it was used from 1995 to 1998. In 1999 all resources were transferred to Ramo 33, and no resources are left to help out states although the case of Nuevo Leon in August 1999 shows how an emergency need for public works, combined with the threat of withdrawal from the *Pacto Fiscal*, could obtain special federal expenditures for what the state would ordinarily have financed.
- Matching transfers, such as for state universities, reduced the flexibility for managing debt. Such matching grants have the practical effect of earmarking some of the states' own revenue, cutting into what was counted as disposable revenue in our earlier calculations.
- Vertical imbalance persisted. As long as alternative sources of revenue were not developed, states would not be creditworthy. Most of their revenues were already tied.
- Domestic banks were virtually the only sources of debt financing for subnational governments. Alternative sources are needed to better access domestic as well as foreign savings.
- Before 2000, one rating agency gave debt ratings that considered past, not prospective, debt issues, and were on a Mexican scale (not a global scale). These ratings overlooked contingent liabilities and did not consider the perverse effects of fiscal imbalances, the matching transfer system, the moral hazard problem of past bailouts, and so forth. Debt had to be rated more seriously, as the new system will require.

A New Reform Initiative

The Overall Case for Subnational Borrowing Regulation

Fiscal decentralization in Mexico has been a political decision, and it seems irreversible. Mexican authorities are justifiably concerned with the risks involved in its scope, implementation, sequencing, and speed. Authorities are conscious about and well motivated by the political, efficiency, and equity benefits resulting from decentralization, but they are also aware of the possible tradeoffs between increased autonomy in expenditure and revenue decisionmaking and responsible macroeconomic management.

The potential of subnational governments to destabilize the country's macroeconomic situation is well known, especially in a federation like Mexico, where states are constitutionally sovereign in their territorial domain. Because states are free to increase outlays, even under a balanced budget they may affect macroeconomic equilibrium, since public expenditure multipliers tend to be larger than revenue multipliers.[3] Moreover, decentralized decisions tend to amplify the procyclical effect of fiscal policy and, in the absence of appropriate policies, to increase public debt. Subnational governments tend to increase expenditures during periods of economic expansion but are more reluctant to reduce expenditures during recessions. This reflects soft budget constraints in which subnational governments operate with a deficit and increase their indebtedness during recessions. Although the federal government has frequently used discretionary grant transfers (the so-called *transferencias extraordinarias*) to rescue states in financial trouble, the states of Coahuila, Guerrero, Mexico, Morelos, Nuevo León, Puebla, Quintana Roo, Sinaloa, Sonora, Tamaulipas, Zacatecas, and the Federal District increased their indebtedness substantially during the 1995 recession.

Soft budget constraints and increasing indebtedness of subnational governments may have deleterious macroeconomic effects in the short run, because of their direct impact on monetary expansion, inflation, interest rates, and balance of payments. In the medium and long term, excessive subnational indebtedness may crowd out private investments and reduce economic growth, and may have a perverse intergenerational equity effect, especially if the social rate of return on public spending is low and subnational governments cannot internalize all the benefits.

Therefore, a prior condition to guarantee successful and sustainable decentralization in Mexico is to ensure that decentralization, on the one hand, improves the social rate of return on public expenditures and, on the other, does not jeopardize short-term macroeconomic stability. Any policy strategy option should include incentives to assure that (a) a hard budget constraint is always in place, (b) public investments generate the highest possible social rate of return, and (c) public borrowers show enough

capacity to pay back their loans (borrowers must be creditworthy). The incentives will be more effective if subnational governments are involved in the process of shaping the overall fiscal envelope and are accountable for their share of fiscal effects.

Management of Subnational Government Debt: The Initial Options

Who should evaluate the capacity of subnational governments to pay, in order to avoid excessive indebtedness, and how to do the evaluation? Many systems of subnational government debt management are possible for the Mexican government.[4] The most general and common systems are (a) financial market discipline; (b) strict case-by-case control by the federal government; and (c) the establishment of explicit, general rules by a national forum. Sometimes a combination of these systems is applied, depending on the particular market conditions.

RELIANCE ON MARKET DISCIPLINE. Market discipline is the most desirable code of behavior and set of benchmarks to follow. However, to work properly and effectively, market discipline has to be strict. This has rarely been achieved even in federations with well-developed financial markets. Many governments have decided not to rely solely on market discipline. Similarly, the following market failures prevail in Mexico, which means that market discipline alone may prove ineffective:

- *Restrictions on the financial market*. Market discipline is only effective if the financial market is free and open. The financial market is not entirely free or open in Mexico. Restricted access to foreign capital markets limits the available options, and compulsory allocation of resources (including those to official financial agencies and parastatals and the placement of government bonds) amplifies the borrowing capacity of the public sector and creates a suboptimal financial sector portfolio.
- *Lack of transparency*. Adequate dissemination and availability of information and full transparency on debt outstanding and capacity to pay are essential to market discipline. In Mexico, the effort to obtain reliable financial information, especially from subnational governments, is not a trivial endeavor. Not all states and municipalities follow a standardized plan of accounting, keep clear and uniform registers of their assets and liabilities, or publish and disseminate information on debt and capacity to pay on a satisfactory, systematic, and reliable basis. Moreover, extra-budget/contingent liabilities, hidden either under indirect indebtedness through parastatals or under soaring pension fund obligations, demand considerably more transparency in Mexico.

- *Moral hazard*. In the presence of moral hazard incentives, market discipline cannot serve as an effective check on subnational governments' excessive indebtedness. As mentioned earlier, in Mexico, the federal government has often intervened to rescue subnational governments in financial difficulties. These frequent bailouts (either by means of ad hoc extraordinary grant transfers or across-the-board debt rescheduling) have fed expectations of future rescue operations and encouraged moral hazard behavior on the part of both borrowers and lenders. As an example, the automatic federal guarantee and liquidation of debt (through the sequestration of federal transfers), still offered by Article 9 (via the so-called mandates from the states), encouraged lenders to disregard risk evaluation, and subnational governments to incur irresponsible indebtedness.
- *Insensitivity to market signals*. Market signals (interest rates and the possibility of market exclusion) can discipline borrowers to seek financial policies that are consistent with solvency. But for market discipline to be effective, the borrower must be sensitive to market signs. Increases in the interest rate should stop or at least make the borrower review its decision to borrow. However, governors and municipal presidents have rarely given adequate weight to market signals when determining their expenditure.

In Canada, market discipline alone is relied on to control subnational government indebtedness, and private rating companies evaluate public sector creditworthiness in a competitive environment. However, even in Canada, with its well-developed financial market, market discipline has been unable to check the excessive indebtedness of subnational governments. In the mid-1990s subnational debt reached 23 percent of GDP, prompting Canadian provinces to adopt fiscal adjustment programs to restrain themselves. But this only happened after the exclusion point had practically been reached, entailing high social costs.

Brazil, and to a certain extent Argentina, which do not have the necessary market conditions in place, have also taken some sort of market discipline approach since the late 1980s, with disastrous consequences. In Brazil, subnational debt jumped from 1 percent of GDP in the early 1970s to 20 percent in the mid-1990s, and in the past ten years the federal government intervened three times with large bailout operations to rescue the creditors of states, and twice to rescue the creditors of municipalities.

In Mexico, given present market conditions, relying solely on market discipline is not recommended, at least for the time being. Therefore, adequate regulation for checking excessive subnational government indebtedness is needed. In order to minimize distortions and encourage development of market practices, the necessary regulation should mimic desirable market

discipline to the extent possible. But to what extent should the federal government or, alternatively, a national forum secretariat directly control subnational indebtedness in Mexico?

DIRECT ADMINISTRATIVE CONTROL. At the other extreme from the market is the enforcement of direct administrative control from the center to check excessive subnational government indebtedness. The direct control approach, however, has been used more frequently by unitary countries and less so by federations. States in Mexico also enjoy ample autonomy, and the direct control system may not be an adequate approach.

Direct controls (a) require the federal government's approval for each credit operation proposed by subnational government or (b) prohibit subnational governments from accessing capital markets directly. The approval of each credit operation inevitably requires an evaluation of the financial terms and conditions under which each operation is contracted. India is an outstanding example of central government approval on a case-by-case basis—the central government is a major creditor and guarantor of subnational governments, and the Constitution requires such intervention. During the 1980s, Australia prohibited subnational governments from accessing capital markets and centralized all loans through the Australian commonwealth government (the Loan Council), which then on-lent to the subnational governments. The direct control system in Australia was not effective, and now subnational governments are free to access capital markets directly. The Loan Council functions were restructured, and excessive indebtedness is now checked ex ante through a cooperative approach at the national level and is monitored closely ex post.

In Mexico the problems with a direct control system are clear: (a) centralizing all credit operations would involve the federal government directly in micromanaging each credit operation of every subnational government (the opposite of fiscal decentralization), entailing an unnecessary increase in federal bureaucracy and undesirable inefficiencies in the financial system; and (b) such prohibitions would be incompatible with the Mexican Constitution, which allows states free access to the domestic capital market, restricted only by approval of the state congress and by state indebtedness laws.

There are, nevertheless, strong arguments in favor of some prohibitions, or at least severe limitations, on some subnational government credit operations, in order to prevent systemic damage. These are operations concerned with (a) central bank financing, (b) noninvestment expenditure financing (the *golden rule*), (c) short-term loans for liquidity assistance, and (d) external financing. These kinds of subnational financing operations are banned in Mexico. Central Bank independence in Mexico rules out any kind of direct government financing. Similar rules could regulate other offi-

cial financial institutions (for example, Banobras and Nacional Financiera). In addition, the Mexico Constitution prohibits expenditure financing for purposes other than investment (the *golden rule*). Yet, in the case of Mexico, the golden rule is not a sufficiently restrictive criterion, since (a) a clear definition of what constitutes investment is not yet in place, and (b) public savings need to be generated to help finance public investments.

Given the initial stage of decentralization in Mexico, the other two prohibitions (against short-term loans and external loans) will remain for the time being, and the government may want to revisit them in due time. Also because of the golden rule, subnational governments cannot yet use short-term loans for liquidity assistance purposes and are losing the opportunity to smooth out their cash flow through the year in order to optimize their financial inflows with outflows. The use of this kind of short-term loan by subnational governments is quite common and appropriate (for example, in the United States, Brazil, and other countries), as long as these governments can be forced to liquidate their debt during the same fiscal year.

The Mexican Constitution prohibits subnational governments from accessing foreign capital markets. Some compelling arguments support this prohibition. First, because changes in external debt have direct impacts on macroeconomic variables (exchange rate, foreign exchange reserves, and money supply), the federal government wants to keep full control over short-run stabilization policies to prevent federal policies from being either neutralized by or detrimental to subnational governments. Second, allowing the states and federal government to approach international capital markets in a fragmented fashion would be less efficient and would result in less favorable debt terms than a coordinated approach from the center. Third, there is always the possibility of a contagion effect in which the default of any one state would affect the creditworthiness and risk rating of other states and the federal government. Fourth, official international lenders usually require a federal government guarantee.

The arguments in favor of prohibiting external debt by subnational governments seem inescapable for the time being. Yet, as market conditions evolve and fiscal decentralization expands, the prohibition should be reexamined, since significant opportunities may be lost by not accessing the global capital market. A cooperative approach, with greater involvement, commitment, and accountability of subnational governments and improved coordination by the federal government, will make the arguments for prohibition less compelling and create conditions for a less radical approach based on more effective rules.

RULES-BASED APPROACH. There are strong reasons to support an adequate rules-based approach to curb subnational government access to capital markets. Rules can only be effective if they can be substantiated in a simple,

transparent, and across-the-board set of legally binding instruments (the Constitution or ordinary laws). In general, these rules should comprise quantitative limits and procedural norms that respect or imitate, to the extent possible, the market practice of good financial discipline and creditworthiness indicators. Being constantly submitted for review, some of these rules should be established as preventative measures, others should only be implemented according to need. A rules-based approach has been adopted to different degrees in Brazil, Korea, Japan, Spain, and the United States, and other countries. Mexico can benefit from the extensive international experience in this area. The most common and essential lessons learned include

- *Limit the borrower's maximum debt service ratio*. Subnational governments should not be allowed to incur further debt if their debt service ratio (flow of interest due and amortization divided by flow of disposable revenue) exceeds a certain limit, say 12 percent. A debt service commitment above this limit will likely jeopardize the delivery of normal public services.
- *Limit the borrower's maximum level of total indebtedness.* Subnational governments should not be allowed to incur further debt if their total indebtedness indicator (ratio of outstanding debt, including indirect and contingent liabilities, to disposable annual revenue) exceeds a certain limit, say 0.8. This indicator of indebtedness will capture the debt burden of loans and credits that are still benefiting from a grace period.
- *Limit banks' portfolio exposure to the public sector.* Banks' portfolio exposure to the public sector should be constrained by a certain maximum limit. This limit should be enforced on total bank-by-bank assets to subnational governments as a group and to each public sector entity individually. Stricter norms and supervision should be applied on the official credit institutions (for example, Banobras, Nacional Financiera).
- *Enforce strict bank reserve requirements.* Besides the regular reserve requirements imposed on banks by the monetary authority, special provisions could be enforced on their operations with subnational governments. A special regulatory and supervisory framework could be in place to preempt problems with subnational governments that are experiencing financial difficulties.
- *Pass and regulate a public entity bankruptcy law.* In preparation for market discipline, the government could introduce a municipal and state bankruptcy law defining debt workout procedures in the case of default.

- *Pass and regulate a law of fiscal accountability.* This law would seek to stabilize public accounts over time (by limiting reiterated, excessive deficits and imprudent buildup of public debt), increase efficiency of public administration, achieve fiscal transparency (by clearly specifying an accounting code and full disclosure), and ensure the accountability of public officials, placing the risk on lenders rather than the federal government.
- *Encourage dissemination of risk rating of subnational governments.* To improve transparency and encourage the financial system to operate as close as possible to market discipline, the practice of creditworthiness analysis should be encouraged. In the United States and Canada, this practice is very common, and private risk-rating companies play a central role in helping subnational governments tap the capital markets, and in helping lenders gauge risks and limit subnational government's excessive indebtedness. Because of market failures, such practices are not well established in developing countries.

Rules-based systems of checking excessive subnational government indebtedness have the great advantage of being transparent and impartial—qualities that minimize political bargains and discretionality. Possible disadvantages are that excess inflexibility can damage the system and that some states will try to circumvent the rules. Although these disadvantages may operate in the short run, in the medium and long run, the rules can be changed and adjusted to new circumstances and necessities. As for short-run rigidities, the purpose of the rules is precisely to harden the budget constraints.

Mexico's New Regime for Subnational Borrowing: 2000 and Beyond

Faced with the challenge of both creating market-based mechanisms that ex ante would prevent excessive subnational borrowing and conveying a credible signal that the federal government would not, ex post, bail out parties involved in such borrowing, in late 1999 the Mexican federal government introduced (with full effect as of April 2000) a new regulatory framework for debt management by the states and municipalities. This framework has six components which innovatively combine market discipline with rules. The first two changes reinforce the government's commitment not to have bailouts. The next three (combined with the long-standing constitutional prohibition of foreign borrowing by states) limit ex ante the states' borrowing, in order to reduce the chance for states to create a debt crisis that would make the rules too costly for the federal government to enforce. The sixth change, pertaining to the government development banks, serves both purposes. The six components are:

1. A renunciation, and ensuing removal from the federal budget for 2000, of the Executive's power for discretionary transfer. Naturally, this policy proved uncontroversial with the opposition-dominated Congress.
2. The abolition of the *mandatos*. This left the states and their creditors to make their own *fideicomiso* arrangements for the collateralization of debt with *participaciones* or other revenue flows, assuming the legal risks involved and without recourse to the federation.
3. The elimination of the so-called *régimen de excepción* for borrower concentration limits. Now the regular rules apply also to subnational debt, limiting the extent of financial-sector damage that one single state can cause and signaling that state debt must be evaluated on a basis similar to other debt.
4. The establishment of a link between the capital risk weighting of bank loans to subnational governments and those governments' credit ratings. In particular, two, current, published, global-scale, local-currency credit ratings performed by internationally reputable credit rating agencies are to be used by bank regulators to assign capital risk weightings (between 20 and 115 percent) to loans given to states and municipalities. The rules for assigning these weights are fully specified by regulation.

   This innovative scheme, which is in line with the Basle Committee's recommendations of June 1999, is based on the distance between the rating obtained by the subnational borrower in question and the rating of the local-currency debt of the federal government. To control for agency shopping, two ratings are called for by the regulation and, in case of large discrepancies (more than two grades of distance), the capital weighting of the worse rating applies.

   The purpose of these regulations is, of course, to make the pricing of bank loans a function of the underlying risk of the subnational borrower, especially in the new framework of no federal intervention. Financially weaker states are likely to be priced or rationed out of the market (and become conditional clients of the development banks; see below), while stronger states would see the price of loans fall.
5. Registration of subnational loans with the federal government was made conditional upon the borrowing state or municipality being current on its publication of debt and associated fiscal statistics from the preceding year's final accounts, and on its debt service obligations toward the government's development banks. At the same time, and to make that registration appealing, unregistered loans are automatically risk-weighted by the regulators at 150 percent. This additional incentive to transparency has the purpose of ensuring that private contracting between the subnational borrowing and the credit rating agencies does not lead to the withholding of a minimum of quanti-

tative information on the borrower finances. Ultimately the discipline on these governments will come most effectively if voters and opposition parties have access to full information about the fiscal behavior of the administration in office.

6. Finally, and as a matter of corporate policy, federally owned development banks are to make new loans to states and municipalities (and their *organismos descentralizados*) only when the loan in question qualifies for registration and its capital risk-weighting is less than 100 percent. This policy, coupled with the conditions for registration mentioned above, makes the development banks part of the rigor of the new regulatory scheme, rather than potential loopholes to it.

   Lending to weaker subnationals, however, is not forbidden. It is, after all, these clients whom the development banks have a mandate to assist. Instead, subnational loans with risk weightings of more than 100 percent are allowed if the loan package contains a technical assistance component funded by an international development bank. This latter arrangement conveys the signal that, when the loan is particularly risky (and correspondingly expensive), its origination and supervision are subject to a neutral, independent party.

Assuring Success: Key Implementation Issues

Mexico's new regulatory arrangement for subnational borrowing is a novel and promising start in putting local finances on a sustainable path. It is likely to generate momentum for further reform, notably in the distribution of tax and expenditure responsibilities among the three levels of government (currently embedded in the *Pacto Fiscal*). Because of the weak association between their access to bank credit and their creditworthiness, states and municipalities previously had no incentive to pay the political cost of raising local taxes or rationalizing local expenditures. With that association now firmly in place, subnational government will now take a more proactive and conservative approach to their finances.

This will benefit the country as a whole. But, for those benefits to occur, several elements will need to converge, most of which are within the control of the federal authorities. Among those that federation can control are the continuing application of the new rules to the development banks and the continuing commitment to renounce to discretionary budget powers. These factors would become all the more important if, in July 2000, a single party both won the presidential election and gained control of Congress.

Also within the policymakers' control will be the quality and enforcement of rules for the definition of bank capital, especially the new and sounder rules enacted in September 1999. The implementation of these rules will be critical if higher capital risk weightings for riskier borrowers are to be translated into more expensive loans, rather than fictitious capital allo-

cations (like deferred taxes) without true opportunity cost to the bank owners.

Similarly, while capital risk-weightings will be a function of rating distances (from the federation), it will be up to the regulators to require that the ratings are performed and posted on a global scale. This will increase the reputational exposure of the credit rating agencies involved, and assure more thorough initial and follow-up analyses.

Finally, and beyond the policymakers' control, the level of competition in the market for nonlending bank services to subnational government will play a role in how differential capital risk-weightings are passed through and reflected on lending interest rates. If states and municipalities have plenty of alternative providers of the agency services that they contract from banks (for example, payroll payments and cash management), the latter may be reluctant in their loan price calculations to account fully for the higher capital allocations that subnational loans may require in the new regulatory framework.

Notes

Overview

1. In the late 1990s some states have shown interest in complementing the Fiscal Pact by piggybacking state taxes on the federal income tax or value added tax.

2. A ramo is a section of the budget.

3. However, the primary purpose of these transfers between 1995 and 1998 was to bail out overindebted states.

4. For the Federal District, the federal Congress approves both the annual budget and borrowing.

5. The agreements are often used, in effect, to commit local governments to administer the property tax. Formation and updating of the fiscal cadastre are often—but not always—the responsibility of the state government.

6. Comités de Planeación para el Desarrollo del Estado (COPLADEs) and Comités de Planeación para el Desarrollo Municipal (COPLADEMUNs) should serve the purposes of intersectoral and public-private coordination at the state and municipal levels. However, these are predominantly spending mechanisms that are not usually concerned with fiscal responsibility or with balancing the revenue and spending columns of the fiscal equation. As a result, they are not effective for mobilizing additional local and regional resources.

7. Sector fragmentation of the budgets also discourages intersectoral coordination within one level of government (not to mention intergovernmental and intersectoral coordination) for allocating resources in a specified region or subregion.

8. A cadastre is an official record of property holdings and values.

9. Tax efficiency is measured as the ratio of tax revenue to the cost of tax administration.

10. If the federal government were simply to cede power to the states to levy a given tax, the "typical" state rate would be the rate previously levied by the federal government.

11. Excessive indebtedness of states may have equity implications. In Mexico, there is a clear positive correlation between state indebtedness and state per capita GDP. Therefore, debt bailouts tend to be highly regressive because the poorer states end up paying for the financial relief of richer states.

12.This calculation was for 16 states plus the Federal District, which employ about half of the total state employees.

13. This link between credit ratings and regulatory standards is in line with a recent consultative paper issued by the Basel Committee on Banking Supervision ("A New Capital Adequacy Framework," Basel Committee on Banking Supervision, Basel, June 1999). More generally, linking regulation to credit ratings is a common

practice in the financial sector of many countries (including Mexico), for example, in regulating corporate bond issues or insurance companies' investments (see Annex VI of IMF [1999] International Capital Markets—Developments, Prospects and Key Policy Issues, World Economic and Financial Surveys, at www.imf.org/external/pubs/ft/icm/1999/index.htm).

14. Banobras will be able to lend to a state with more risky credit ratings if the loans have an institutional development component funded by the Inter-American Development Bank, the World Bank, or other international development agencies because this may help improve the state's credit rating (especially among low-rated states).

15. By limiting the discretionary power of the federal authorities, the prevalence of rules will also directly support ongoing congressional efforts to grant more independence to subnational governments, including recent amendments to Article 115 of the Constitution.

Perspectiva General

1. De un tiempo a esta parte, los estados han mostrado más interés en complementar el Pacto Fiscal cargando los impuestos estatales al impuesto sobre la renta federal o al impuesto al valor agregado.

2. Un ramo es una sección del presupuesto.

3. Sin embargo, el propósito fundamental de esas transferencias entre 1995 y 1998 fue sacar de apuros a los estados que se habían endeudado de manera exagerada.

4. Para el Distrito Federal, el Congreso federal autoriza el presupuesto y el endeudamiento anual.

5. En efecto, a menudo se recurre a convenios para obligar a los gobiernos locales a que administren los impuestos prediales. La formación y actualización del catastro fiscal son a menudo—pero no siempre—responsabilidad del gobierno estatal.

6. Los Comités de Planeación para el Desarrollo del Estado y los Comités de Planeación para el Desarrollo Municipal deben servir para la coordinación pública–privada e intersectorial en los niveles estatal y municipal (COPLADEs y COPLADEMUNs, respectivamente). Sin embargo, se trata de mecanismos predominantemente de egresos que, por lo general, no se ocupan de la responsabilidad fiscal ni de equilibrar las columnas de gastos e ingresos de la ecuación fiscal. Por ende, no son eficaces para transferir recursos adicionales de carácter local y regional.

7. La fragmentación sectorial de los presupuestos también entorpece la coordinación intersectorial dentro de un nivel de gobierno para asignar recursos en una región o subregión específica (por no mencionar la coordinación intergubernamental e intersectorial).

8. El catastro es el registro oficial de la tenencia y valores de bienes raíces.

9. La eficiencia fiscal se mide como la proporción del ingreso fiscal con respecto al costo de la administración fiscal.

10. Si el gobierno federal simplemente fuera a delegar poder a los estados para gravar un determinado impuesto, la tasa estatal "típica" sería la tasa previamente fijada por el gobierno federal.

11. El endeudamiento excesivo de los estados puede tener repercusiones de equidad. En México, existe una evidente correlación positiva entre el endeu-

damiento estatal y el producto interno bruto per cápita de los estados. Por consiguiente, los rescates de deuda tienden a ser ligeramente regresivos porque los estados más pobres terminan pagando la ayuda financiera de los estados más ricos.

12. Este cálculo era para 16 estados más el Distrito Federal, que tiene contratados a cerca de la mitad de todos los trabajadores públicos estatales.

13. Este vínculo entre calificaciones de crédito y normas reguladoras va a la par con un reciente documento consultivo publicado por el Comité de Basilea para la Supervisión Bancaria (*Un Nuevo Marco de Suficiencia de Capita*l, Comité de Basilea para la Supervisión Bancaria, Basilea, Junio 1999). En términos más generales, vincular la reglamentación a las calificaciones crediticias es una práctica normal en el sector financiero de muchos países (entre ellos México); por ejemplo, al regular las emisiones de bonos de empresas privadas o inversiones de compañías aseguradoras (consulte el Anexo VI del Fondo Monetario Internacional [1999], **International Capital Markets—Developments, Prospects and Key Policy Issues,** World Economic and Fiancial Surveys, en **www.imf.org/external/pubs/ft/icm/1999/index.htm.**

14. Banobras podrá otorgar préstamos a un estado con calificaciones crediticias más arriesgadas si los préstamos incluyen un factor de desarrollo institutional financiado por el Banco Interamericano de Desarrollo, el Banco Mundial o algún otro organismo internacional de fomento ya que esto puede ayudar a mejorar la calificación crediticia del estado en cuestión (sobre todo entre los que tengan una calificación baja).

15. Al limitar el poder discrecional de las autoridades federales, la preponderancia de reglas también apoyará de manera directa los esfuerzos que está realizando el Congreso para conceder más independencia a los gobiernos estatales, incluyendo las recientes enmiendas al Artículo 115 de la Constitución.

Chapter 1

1. Borrowing is efficient because it solves the problem of liquidity and allows local governments to match the timing of consumption with payment for those services. Having one generation of taxpayers pay for the capital equipment and then allow posterior generations to consume the services free of charge is unfair.

2. In general it seems that an origin-based sales tax would be more appropriate than a tax on commercial property because firms providing services generally have relatively little tangible property. But public services may be closely related to the existence of tangible property, especially real property, the base of most successful property taxation. It may appear that a source-based corporate income tax would also be appropriate in this case, but there are several problems with this reasoning. Services are presumably not provided only to corporations, and the value of such services is not likely to be closely related to profitability.

3. The result under a flat-rate surcharge on the base of the central government, as in some states of the United States, is very different from that under the Canadian system of imposing provincial surcharges on the tax liability to the national government. Since the national tax in Canada is levied at graduated rates, the provincial surcharge is also progressive, with the adverse effect already mentioned.

4. In addition, the retail sales tax provides some incentive for vertical integra-

tion. This is reduced by exempting goods bought for resale or direct use in production, for fuels, and for utilities; such exemptions vary from state to state.

5. By far the most important cause of tax exporting in the United States is the deduction for state and local income and property taxes that is allowed in computing liability for federal income tax, a provision that is hard to justify. Taxes are also exported to owners of firms that cannot shift taxes to others (customers, suppliers, or labor). Exporting to out-of-state customers is not likely to be important, because of pressures from untaxed competitors.

6. For more detailed descriptions, see McLure (1995), Martínez-Vásquez, McLure, and Wallace (1995), and Asian Development Bank (forthcoming). As explained there, the lack of *oblast* fiscal autonomy is much worse than suggested by the description in the text. Tax sharing commonly varies across taxes and between oblasts and is set to provide the revenue needed to finance a given level of expenditures. Where shared taxes do not provide adequate revenues, the central government provides subventions. Expenditure levels reflect a combination of norms, historical patterns, inflation adjustment, and negotiation. The German länder also rely heavily on shared taxes, particularly the value-added tax. In Canada the federal government collects the harmonized sales tax for itself and several of the poor Maritime Provinces, dividing the provincial share on the basis of estimated consumption in the various provinces.

7. The pervasiveness of revenue sharing conditions the applicability of this statement, since it implies that the federal government does not keep all the revenues from any tax that enters the coparticipation pool.

8. Under the state value added tax proposed in Chapter 4, interstate transactions would be zero-rated by the state of origin and subject to the compensating value added tax. Purchases by registered traders would be taxed by the state of destination on a deferred payment basis. It appears that the problem of assuring consistency of state taxation would be vastly more difficult in the absence of the compensating value added tax. The state of destination would have to rely on the federal government to see that the state of origin is not making zero-rated sales to households in its jurisdiction.

Chapter 2

1. Memorias de la Primera Convencion Nacional Fiscal, 1925, p.6.

Chapter 3

1. However, expenditure shares can be a misleading measure of decentralization. Subnational governments can have more resources pass through their budgets, but may not have more discretion over these expenditures.

2. These data are from the Ministry of Finance and Public Credit (SHCP). Data for total revenues available to the states for 1999 indicate much lower horizontal disparities across states (see Chapter 5). This may be because there was equalization in 1998 and 1999, or that the data sets are not consistent or comparable.

3. For the 23 states with complete data. The regression coefficient was statistically significant at the 1 percent confidence level, and the R-square was 0.57.

4. The degree of control actually exerted by the ministry depends on the state, in particular the governor and his team. One possible reason for the lack of decen-

tralization is that the ministry has not downsized significantly as a result of the National Agreement and federal employees have found it hard to change their roles.

5. This dual system existed for a number of years. Currently, even though the two systems have been formally integrated, they continue to be administered separately in many states.

6. The negotiations between the Ministry of Public Education and the national union are circumscribed by the budget allocation approved by Congress in the federal budget for federal teachers.

7. For example, parents in Zacatecas and Oaxaca complain that the absenteeism rate of teachers is very high (World Bank 1996).

8. The equity issue could be addressed by providing special scholarships for low-income students.

9. Any differences between decentralized and other states were mostly due to differences in initial conditions and not to decentralization per se (OCDE 1998).

10. However, wages and salaries are fixed at the national level through negotiations between the Ministry of Health and the national union.

11. INEGI (1998, p. 82) reports that the distribution of health transfers in the Fiscal Coordination Law is based on a capitation formula adjusted by mortality, poverty, and expenditure on health services. This is not described in the law itself. It could be that federal authorities plan to move toward this very desirable reform.

12. Despite increases in federal health expenditures and considerable investments in poorer states, until 1997 the Ministry of Health budget allocations per capita were inversely correlated with the poverty level of the state. Reportedly, the Ministry is using a new formula that takes into account demographic and epidemiological characteristics (OCDE 1998).

13. The average cost of transport to the nearest health center for treatment in Zacatecas is more than one month's earnings (World Bank 1996).

14. Per capita, risk-adjusted funding is more equitable and also more likely to contain costs (as opposed to payment for service rendered).

15. According to the Ministry of Health, the states manage 70 percent of all budget resources in health services, but 70 percent or more of these funds are for wages and salaries that are determined at the federal level.

16. Since 1990 the Irrigation District Authority has been transferred to producers themselves, and cost recovery has improved for those districts still administered by the National Water Authority.

17. For the most part, toll roads have not succeeded due to a combination of factors, including poor feasibility analysis, high tariffs, and the concessionary process.

18. Since 1985 the federal government has delivered funds for investment programs only when channeled through the COPLADE.

Chapter 4

1. This statement is not meant to imply that the base of the existing federal tax is optimal or even desirable. It may be that all payroll tax bases, including that of the federal tax, should be made to conform to the best of the state bases. The point is that all the bases should be the same. Uniformity of bases might be achieved by federal mandate or—perhaps more acceptable politically—by allowing credits for some portion of state taxes against a federal payroll tax, provided the states adopt

the federal base. The latter technique has been used to achieve uniformity of state taxes on transfers of real estate.

2. Mexican subnational governments accounts report "gross revenues" as the relevant measure of own revenue collection. That is not a correct measure of fiscal capacity because it includes borrowing, revenue sharing, and funds collected on behalf of other levels of government. Net tax revenues refers to revenues collected by a subnational government without borrowing, revenue sharing, and the so-called revenue "por cuenta de terceros." It is the sum of Impuestos, Derechos, Productos, and Aprovechamientos, which are the relevant tax and nontax revenues. All estimates in the tables are calculated as a percentage of net tax revenues.

3. If residence-based taxation were feasible, it might make more sense to reserve surcharges on the individual income tax for use by municipal governments, because of the scarcity of tax bases that are suitable for use by local governments. This is especially true if, as suggested below, state surcharges on the VAT are feasible.

4. A tax limited to a small portion of the population invites "tyranny of the majority." Whether this is more problematic for a federal or state tax is unclear.

5. These figures are calculated from state income distribution survey results released by 1999, but the raw data, which would produce a better analysis, could not be obtained from INEGI.

6. A long-run objective might be to merge the payroll and individual income tax systems, allocating to the states the capacity to levy flat rate income tax surcharges, while leaving the progressive element at the central level. This would necessitate unification of the two tax bases and the administration of the two taxes—a step that would presumably allow some savings in costs of compliance and administration. Whether this is a sensible objective from the point of tax assignment depends in part on one's view of the nature of the services provided by the states and the prevalence of commuting across state boundaries. If labor income is thought to be a reasonable proxy for the consumption of such services and if (a) most such services are provided where people work, rather than where they live, or (b) cross-boundary commuting is not overly important, it would be better to employ the (source-based) payroll tax to finance them, even in the long run. If total income (including nonlabor income) were thought to be a better proxy, if most services are provided where people live, or if cross-boundary commuting is important, unification of the income and payroll taxes into a single residence-based tax would be more appropriate, if it can be achieved.

7. One might think of the flat-rate state tax as being levied at the "basic" rate on virtually all income, with the graduated rates of the federal tax being levied only on income above a certain level.

8. Depending on the structure of personal deductions and credits, deductions and credits for personal expenditures, and other features of the individual income tax, the situation could be even worse. This cannot be assessed without a thorough examination of the structure of the individual income tax, which is beyond the scope of this paper.

9. Absent the constitutional requirement that taxes on hydrocarbons should be federal taxes, taxes on motor fuels could also usefully be assigned in part to the states to help cover the costs of highways and roads.

10. In the case of motor fuels the problem is more likely to take the form primarily of (a) households residing in high-tax states filling their cars in neighboring low-tax states, and (b) interstate truckers concentrating purchases of fuel in low-tax

states. The former abuse is difficult to prevent, but seems unlikely to be quantitatively significant, except in a few cases (for example, the Federal District and the State of Mexico). To prevent the latter abuse, if Mexico were to assign motor fuel excises to the states (following relaxation of the constitutional prohibition of state taxes on hydrocarbons), consideration might be given to the "base state" approach employed by all the states of the United States and some of the provinces of Canada. Under this approach, truckers pay the tax due where they purchase fuels. But they apportion road use, and thus consumption of fuel, among the states where they operate, based on mileage logs, and file returns with their "base state" (ordinarily the state or province where they have their primary place of business) showing tax liability to each state, based on estimated consumption and tax rates in the state. The taxpayer makes one payment to its base state if, on balance, the sum of residual tax due all states is positive (and receives a refund if the sum of residual liabilities is negative). Each base state then remits to (or receives from) an interstate clearinghouse the net balance due other states. Given Mexico's participation in the North American Free Trade Association with Canada and the United States, it seems appropriate for it to consider joining this arrangement, especially if its states are given the power to levy taxes on motor fuels.

11. The ease of smuggling from neighboring countries effectively limits the level of excises. Above a certain level, increases in excises are likely to produce less revenue, not more.

12. It is also generally inefficient to use "geographic separate accounting" for such a purpose, since such accounts generally are not needed for any other reason.

13. It is worth noting that over the past 25 years there has been a tendency for the states of the United States to shift from a formula that accords equal weight to the three factors to one that places double weight on sales (and even to formulas based entirely on sales), presumably to reduce the implicit burden on origin-based factors.

14. This discussion concentrates on sales to households and unregistered traders and those to registered traders. (It is assumed that sales to unregistered traders should be taxed, as a surrogate for taxing their sales.) It does not examine details such as the treatment of sales to and by governments and nonprofit institutions, because these are not central to the issues at hand.

15. The approach employed in the state RSTs levied by 45 states (and the District of Columbia) in the United States is to allow registered traders to purchase certain types of products by presenting "resale exemption certificates" to their suppliers. All states exempt purchases of goods to be resold without a change of condition and most purchases of goods to be incorporated in goods for resale. Beyond that, practice varies from state to state; some states exempt, *inter alia*, goods to be used directly in production, fuels, public utilities, agricultural implements, and seeds bought by farmers. For a more complete discussion, see Due and Mikesell (1994). It has been estimated that, on average, 40 percent of the state tax base involves sales to business, with wide variation around that average; see Ring (1989 and 1999). Thus Mexico should not emulate the typical RST levied by the American states, which deviates substantially from a pure consumption-based tax.

16. The usual problem with exemption systems is that they place the vendor in the unenviable position of determining whether each sale is taxable or legally exempt, and create an incentive for the vendor to "look the other way" when a household purchase masquerades as a business purchase. Under the Mexican pro-

posal it appears that the vendor need only ascertain that the purchaser has a valid VAT TIN.

17. If, contrary to the Mexican proposal, the state RST were to be implemented by the federal tax administration, costs of administration would be substantially lower than under state administration of the RST, and costs of compliance would be somewhat lower. The federal administration would determine for purposes of both the VAT and the RST whether a particular purchase was for business purposes, and thus eligible for VAT input credits and exemption from the RST. Taxpayers would need to deal with only one tax administration.

18. Much is made of the "cross-checking" that is made possible by the VAT—the fact that credits taken by registered purchasers must be shown on invoices issued by vendors, and thus subject to tax. This is probably less important than confirming that purchases are for legitimate business use.

19. If experience in other countries is any guide, taxpayers would not—as they should—be able simply to give state auditors photocopies of information provided to federal auditors.

20. This discussion refers only to the RST; the next subsection discusses the analogous problems under the VAT. Exemption of interstate sales to registered businesses by the state of origin would occur naturally under the RST, provided the state's tax administration respects the right of the out-of-state business purchaser to make exempt purchases.

21. Note that this discussion pertains directly only to "remote selling," sales of tangible products sent to the customer across state lines. It does not concern "cross-border shopping," in which the customer buys a product "across the counter" in a state where she or he does not live and takes it home for use there. It seems virtually inevitable that the latter transactions will bear tax at the rate prevailing in the state where the sale is made (the state of origin), and not that of the state of destination, except in rare cases, for example, where goods must be registered in the state to be used there, as in the case of automobiles (and perhaps boats and planes). This places revenues in the "wrong" state. People may engage in cross-border shopping in order to reduce taxes when two adjacent jurisdictions have markedly different tax rates. This abuse is inevitably difficult to prevent. It is, of course, important only where metropolitan areas straddle the boundaries of subnational jurisdictions, as in the case of Mexico City. Interstate sales of digital content over the Internet ("electronic commerce") could be handled in the same way as interstate sales of tangible products. The most difficult problems involve sales originating outside the country. Sales occurring within the country could, in principle if not in actuality, be monitored. It is difficult to tax a transaction in digital content between an unknown customer and a foreign seller (perhaps located in a tax haven), especially if payment is made in untraceable money. See McLure (1997 and 1999).

22.This may seem not to be an important problem in Mexico at the present time. It is certainly an important problem in the United States and Canada, and will grow in importance as the economy of Mexico develops. Part of the problem in both of Mexico's northern neighbors can be traced to constitutional restrictions on the taxing powers of the states and provinces. In the United States these restrictions were imposed on the states by the U.S. Supreme Court because of the overwhelming diversity of state and local tax laws; McLure (1999) describes the situation in the United States. There is no reason that Mexico need be bound by similar artificial restrictions.

23. In theory, each of the 32 states could rely on the tax administrations of the other 31 states to serve this purpose. Indeed, perhaps the "base state" approach described above in footnote 9 could be employed for the sales tax. The latter is one alternative being considered by the National Tax Association's Telecommunications and Electronic Commerce Tax Project, described in McLure (1999). One of the Project's concerns is that state tax administrators might not be diligent in auditing their own taxpayers on behalf of other states. This concern seems equally telling in Mexico. In any event, it would be feasible only if the tax base of the various states were essentially identical. With federal administration of the state RSTs, returns for all states would be filed with the federal administration. This would not relieve the most burdensome aspects of compliance, the need to distinguish the state of destination of remote sales.

24. Some technique such as this might be necessary in the case of electronic commerce in digital content, since the vendor may not know the location of the buyer. See McLure (1999).

25. See, for example, Boadway (1997) and (McLure) 1980a. Indeed, even sharing of revenues from a national tax has been thought to involve similar problems. See McLure (1995).

26. Much of this discussion is based on an excellent paper by Poddar (1990). It is assumed that international trade would be taxed under the destination principle, as is the virtually universal practice. Thus, exports would be zero-rated, and the full value of imported products would be subject to tax.

27. As above, it is assumed that unregistered traders are to be treated like households, since they are "outside the system," and thus not eligible for credits for tax paid on purchased inputs.

28. Even with uniform rates the value of goods crossing internal borders may be contentious. Values attached to such trade are a matter of indifference to taxpayers, but subnational governments would not be indifferent, because the valuation at the border would affect their tax bases. Thus taxpayers could be caught between tax authorities in the two jurisdictions.

29. The more affluent states of the south tax imports and the poorer states of the northeast rebate tax on exports. See Longo (1982). To ameliorate the resulting inequities, lower rates are applied to interstate sales than to intrastate sales, seriously complicating the system.

30. Poddar (1990, pp. 110–11) calls this a joint national-state VAT when imposed in the context of a two-tiered national/subnational VAT.

31. At the risk of excessive proliferation of labels, one might refer to the Quebec system as employing "unprotected zero-rating/deferred payment" and the CVAT system proposed below as involving "protected zero-rating/deferred payment."

32. It is worth noting that in this case the province administers both the federal and provincial VATs. The VAT in Mexico was administered by the states for some years prior to 1991, but the clearest effect of such measure was a drop in revenue, attributable probably to compliance problems. Thus, the federal component of any dual system employed in Mexico—and perhaps the state component—would presumably be administered by the federal tax authorities. In some countries there is a further issue: whether subnational governments trust the central government to deliver the revenue collected on their behalf.

33. In recent years there have been several proposals in Argentina and Brazil for a dual state/central VAT. In Argentina Libontti and Salinardi (1994) have proposed

state use of "unprotected" zero-rating and deferred payment. Drawing on a proposal originally made for Brazil by Varsano (1995), Gonzalez Cano (1996) and Fenochietto have proposed an "IVA compartido" or shared VAT that would combine zero rating/deferred payment with an additional "compensating" VAT on interstate sales to registered traders along the lines proposed below. See McLure (1998).

34. It should be noted that international trade poses no conceptual problem in this case. State tax is collected on imports and credit is allowed for the tax paid on imports. Similarly, exports are zero-rated for the state tax, as well as the federal tax.

35. This statement assumes that the price of power approximates the marginal long-run cost of producing it. If this is not true, marginal cost pricing should be introduced; taxation may be one way to do this.

36. In addition, Section IX of Article 117 provides that "the States may not in any case…levy duties on the production, storage, or sale of tobacco in a manner distinct from or with rates greater than those authorized by the Congress of the Union."

37. A common sense interpretation of the following article should not pose any problem: "Article 118. Nor shall the States, without the consent of the Congress of the Union...establish ship tonnage dues or any other port charges, or levy imposts or taxes on imports or exports." Sales taxes and excises levied on a destination basis include consumption of imported goods in their bases. While they may be collected at the point of importation, they are not taxes on imports.

Chapter 6

1. Total lending from commercial banks to subnational governments in early-1998 was only about 4 percent of their total portfolio.

2. It is not possible to compute the debt service ratio, because figures for interest *due* and amortization are not available. The available statistics on the fiscal/financial flows only show *cash* payments.

3. The impact of increased subnational government expenditure is bigger when they are financed with deficits, as is often the case in Mexico.

4. For a survey and a discussion of the relevant international experience see Ter-Minassian and Craig (1997) and Lane (1993).