

# Infrastructure Notes



March 1997



The World Bank

Urban No. FM-9

## Financing Mechanisms at the Subnational Level in Emerging Markets Borrowings and Privatizations/Concessions

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### INTRODUCTION

This note reviews the current borrowing trends for subnational entities (e.g., provinces, states and municipalities) in developing countries where—in addition to the traditional municipal credit institutions sponsored by central governments—a number of new financing instruments have been developed based on the security provided by intergovernmental transfers and taxing authority. It also reviews the trends in privatization and concession of urban infrastructure (primarily transportation toll facilities and water/sewer systems) which have led to an increased demand for domestic and international financing. It finally discusses possible future directions for subnational financing through borrowings and privatizations/concessions in domestic and foreign private financial markets.

There have been dramatic shifts in international capital transfers from industrialized countries to emerging markets. Net capital flows (debt and equity) to the emerging markets reached over US\$160 billion in 1996. Capital transfers have accompanied the liberalization of many economies, especially in Latin America and to a smaller degree in Asia (primarily China). This has attracted a significant amount of direct foreign investment by industrial country companies looking to expand their markets and by portfolio investment managers (equities and to a lesser extent, fixed income securities) seeking higher returns in emerging markets.

The structural changes occurring in many emerging economies are key to attracting foreign financing. These include privatization of state-owned enterprises,

deregulation of financial markets to allow for foreign ownership and investment, liberalized tax and trade laws, shifts in global production, and liberalized monetary policies that will continue to draw foreign investors.

Despite these favorable developments, subnational governments so far have limited access to the international markets. Over a trillion dollars of debt has been issued for emerging markets in the past five years, but only a few hundred million dollars have been raised for general use by municipalities. An example is the US\$125 million Eurobond issued by the municipality of Rio de Janeiro in 1996.

In domestic capital markets, the changes in the “human and institutional culture” required to develop local private capital markets have significantly lagged changes in technology. Improvements in management, changes in regulations, and the further privatization and reform of the banking sector have created more sophisticated private banking institutions in developing countries. Still, local governments have not kept pace with these changes, especially with regard to financial management. More significantly, the perceived lack of creditworthiness and limited confidence in the capacity of local governments to repay debt obligations have limited local government ability to borrow in local private markets, leaving much of the funding burden to government-owned municipal development funds. Central government lending intermediaries will continue to play a significant role in financing local governments until the foundations for improved credit quality and management are well established.

## BACKGROUND AND CURRENT TRENDS FOR SUBNATIONAL GOVERNMENT BORROWINGS

The significant change in the roles and responsibilities between local and central governments is the primary force driving changes in subnational borrowing. In Latin America, Central and Eastern Europe, and other areas, central governments have shifted tax revenues and service provision to local authorities. In many cases the transfer of these revenues has been unbalanced, leaving local governments with increasing service burdens but with insufficient resources to cope with the growing needs of the target populations. Local resources are primarily absorbed by personnel and other operating expenditures and little funding is available for investment in urban infrastructure.

The strain on operating budgets, combined with macro structural economic adjustments in many countries, have left local authorities in a precarious credit situation. Local governments often have significant operating deficits which are funded through delayed payments to suppliers and short-term borrowing from the public and private markets, if available.

### *“Tax Revenue Intercept”*

One of the private borrowing techniques that has emerged in Latin America is a “tax revenue intercept” mechanism for securing bank loans. Municipalities in Argentina, Colombia and Mexico use some variation of this approach.

In Argentina, provinces use tax revenues collected by the central government and distributed to the provinces as security for borrowing from private or state-owned banks. The tax revenues, generated primarily by federal income and value added taxes, are allocated to each province based on a formula agreed upon between provincial and central government legislatures. The central government collects the tax and distributes it to the provinces’ accounts at the state-owned national bank. This allows for an “intercept” mechanism wherein a creditor can have the national bank remit the debt service owed by the province to its own account at the national bank. Debt service on the private bank loan gets paid and the remaining taxes are then remitted to the province’s account at the national bank. This mechanism has also been used by a province in Argentina to borrow from an international creditor. Lenders have a first lien on the tax revenues of the province. Another version of the intercept method as security for private bank loans has been developed in Colombia through the FINDETER program (*Financiera de Desarrollo Territorial, S.A.*).

In Mexico, a variety of the intercept method was recently used to secure payments to concessionaires for wastewater treated at their sewer treatment plants. Many municipalities and state governments have concessioned sewer treatment plants. Part of the security for the financing of the plants derives from a line of credit from the state development bank, BANOBRAS. In the event that a municipality is unable to pay the concessionaire for the plant’s treated water, the concessionaire can draw down on a line of credit provided by BANOBRAS. BANOBRAS, in turn, could intercept the state’s transfer revenues to repay the credit line in the event that the municipality did not repay it in a timely fashion. After the financial crisis in late 1994, BANOBRAS has not entered into new credit lines using this mechanism.

### *Access to International Capital for Subnational Governments*

Unless subnational governments develop stable fiscal conditions, it will be difficult to access capital markets. However the financial condition of subnational governments is closely intertwined with the macroeconomic, monetary and fiscal policies of the sovereign entity, in addition to the local economic tax base and intergovernmental transfers, the efficiency of service delivery, and the ability of the subnational government to manage its financial operations with adequate accounting and budgeting systems.

Bond offerings for emerging market countries have grown dramatically. In the period 1993 through 1995, Mexican public and private entities issued 103 offerings valued at some US\$20 billion. Other major emerging market issuers during this period include:

- ◆ Brazil US\$13.8 billion, 155 issues
- ◆ Argentina US\$15.2 billion, 106 issues
- ◆ Thailand US\$7.1 billion, 78 issues
- ◆ Indonesia US\$4.5 billion, 39 issues
- ◆ China US\$4 billion, 23 issues
- ◆ The Philippines US\$3.2 billion, 28 issues

Most of these issues were related to sovereign borrowers, state enterprises, or private companies. Only a handful of subnational governments issued bonds, such as the provincial banks and governments from well-known Argentine and Chinese provinces, some Brazilian states, and other familiar subnational units in other countries. The large exposure of market participants to Brazil and Argentina (almost US\$30 billion of bonds in 3 years with over 260 issues) provided investors with additional comfort regarding sovereign risk, the first level of credit analysis required for purchasing subnational bonds. Table 1 shows some of the subnational entities that have

offered bonds in the Euromarkets. This list is comprised of government agencies or names that are known by foreign investors—perhaps the most important factor in marketing their bonds. These entities have a relatively well diversified and mature economic base comprised primarily of manufacturing and service sectors. The financial statements provided by the bond prospectus indicate a relatively healthy operating account for most of these entities, although events last year in Cordoba and Minas Gerais demonstrate the speed at which the fiscal condition of subnational governments can change.<sup>1</sup>

Another interesting lesson about the Minas Gerais bond offering is the link with the state owned electric company, CEMIG. The Mineros structured a bond offering whose primary appeal was tied to the fate of the electric company. Investors following Brazil knew that the government was reforming the electric sector and considering privatization and concession of the production, transmission, and distribution of power. Although the situation of CEMIG was not clear regarding its privatization or concessioning of independent generation units, investors were willing to bet that the share price of CEMIG would rise (its stock was undervalued) providing an incentive to exercise the warrants, sell the shares at a profit and boost the return on their bond investment. This example shows the direct linkage between privatization and international fixed income flows to subnational governments.

#### **TRENDS RELATED TO PRIVATIZATIONS AND CONCESSIONS OF LOCAL INFRASTRUCTURE**

International and domestic capital has also been raised for urban infrastructure projects related to privatizations and concessions. These projects are interesting in that they combine several different players with diverse interests. Local and federal governments are looking for foreign capital to help them expand urban infrastructure services. Foreign companies, both manufacturing and service providers, are looking to expand their markets. Local companies are seeking foreign partners to improve their management skills and for technology transfers, in

addition to expanding their local market share. They are also looking for strategic alliances with foreign companies for cross border investments. Other players in privatization/concession transactions include “developers/project sponsors” seeking high returns from privatization and concession projects, foreign commercial and investment banks seeking to arrange financing, and a host of other service providers from engineering and consulting companies to lawyers negotiating project finance documents.

The volume of debt and equity financing has grown significantly for concessions and some interesting financing mechanisms have evolved, mostly syndicated bank loans arranged by foreign banks and, to a much smaller degree, bond financing. These projects have also spurred development of new domestic financing instruments, such as in the newly emerging regional Asia bond market, and in Mexico where, for instance, domestic capital markets provided bond funding for toll roads and other infrastructure concessions. A limited number of these bonds were underwritten by commercial and investment banks and targeted to high net worth local individuals. Demand for these bonds dried up as a result of the 1994 financial crisis demonstrating the fragile and illiquid nature of this market.

The most well-known projects include the concessioning of the Mexico City and Buenos Aires water systems. These projects were financed with concessionaire equity and syndicated bank loans, the latter involving the participation of the IFC, and foreign and domestic banks. A large number of individual water and sewer treatment plants for cities and states have been concessioned in Mexico including Toluca, Tampico, Ciudad Juarez, Cancun, Puebla Puerto Vallarta, and others. The primary concessionaires are the Mexican construction companies often accompanied by participation by foreign British, French, and some US water companies. Most of these projects have used domestic bank financing, although a few have been negotiating with foreign institutional investors, such as G.E. Capital, to provide convertible debt financing (non-payment provisions which convert the debt to equity—a “pre-workout” or exit strategy).

The financial crisis in Mexico has significantly delayed the financing of many of these projects as banks reassess their role in project financing. Banks are more cautious about lending to projects and will require greater security and risk coverage. For those projects that have payment defaults, the banks negotiate a debt restructuring with the government playing a crucial role in re-negotiating the concession agreement, especially the clauses related to the tariff structure. In one case, the government allowed the concessionaire to reduce the

<sup>1</sup> The Cordoba bond was issued in September, 1994 and was based on financial information from 1993. By the summer of 1995 the province's fiscal condition deteriorated to such an extent that it had difficulty paying its workers. The Minas Gerais issue was offered in January, 1994. These bonds were sold in spite of the state government's considerable debt burden, the majority of which was not being serviced. Minas also had difficulty in paying its workers towards the end of 1995 and had to use additional CEMIG shares as collateral for loans. These subnational entities have passed through their respective financial crises, but they still face unstable financial conditions.

initial tariff but to have a large step-up when users were more able to pay. Flexible tariff structures and the active participation of the government regulatory body will become increasingly important for water and sewer concession financing.

An innovative financing in the transportation sector recently emerged in the Zhuhai Special Economic Zone, Guangdong Province, China. The Zhuhai Highway Corporation, Ltd. (the Company) sold US\$85 million of 10-year, 9.125% Senior Notes and US\$115 million of 11.5%, 12-year Subordinated Notes in the Euromarket. The structure of the financing is similar to a US municipal toll road revenue bond with features unique to circumstances in China. The notes are primarily secured by annual usage fees paid by vehicle owners traveling on Company roads, bridges and tunnels, and non-locally registered vehicles that pay a toll upon entering the City (Vehicle Charges). The Company is also required to maintain a 1.25 net debt service coverage ratio. There are annual usage fees and entry toll mandatory increases; quarterly debt service coverage ratio tests and increases in Vehicle Charges in the event the coverage ratio falls below 1.25%; a Debt Service Support Agreement to insure the convertibility of Renmimbi into US dollars; a pledge of all outstanding shares of the Company as collateral; and a US\$ Debt Service Reserve. These features enabled the notes to secure an investment grade rating from both Moodys and Standard and Poors. Another Eurobond financing for a toll road in the Beijing metropolitan area was almost completed last year but was delayed because of a lack of central government approval.

Argentina has concessioned access roads to Buenos Aires attracting consortiums of foreign and domestic companies. The roads have been financed with equity raised by merchant banks for the concessionaire supplemented by syndicated bank loans with foreign and domestic banks participating. The IFC has also provided debt and equity for some of these projects. One of the financing structures includes a bank syndicated loan with the banks having the option to convert a portion of the loan interest into equity. This demonstrates, as it did in the Mexico water case, the increasing willingness and, in some cases, the requirement of lenders to participate in the project's upside while limiting their downside exposure. This type of structure will most likely continue to develop as commercial banks become more infused with a merchant banking culture and seek higher returns on their capital, albeit with additional risk. In these cases the banks and concessionaire would look to structuring transactions and the legal documentation to shift commercial and political risks to the government, making it increasingly important for governments to

develop clear, commercially oriented regulatory structures to manage the concessions.

## **FUTURE TRENDS FOR SUBNATIONAL GOVERNMENT BORROWINGS AND PRIVATIZATIONS/CONCESSIONS**

### ***Subnational Borrowings***

Service provision in subnational governments is moving in two directions. There is a separation between those services that can be supported by user fees, such as water and sewer distribution, collection and treatment, and urban transport, and those activities that will require budget support from general revenue sources, such as basic education and safety and security. Subnational governments are converting their user fee activities, for example, utilities and enterprises, into privately run companies or concessioning these services to the private sector. This trend is gaining momentum throughout the developing world and should continue for the foreseeable future.

Domestic borrowing by local governments for services and programs unrelated to privatization will continue to use a mix of domestic public and private creditor sources. A strong domestic capital market can work only where the creditworthiness of local governments improves. Creditworthy local governments should always be able to borrow from private banks and in some cases issue domestic bonds, but the majority of small local governments might still need to rely on municipal development funds and other central government sponsored financial intermediaries to finance infrastructure needs.

There are alternative ways of diversifying the risks of smaller government units through the use of bond banks, loan pools, and guarantees. These concepts, prevalent in industrialized countries, may be adopted to local situations on a country-by-country basis. However, the hard work of developing the foundations for creditworthy local governments cannot be avoided. This entails credible accounting and management systems; independent auditing of financial results; multi-year capital and operating budgeting systems; sound financial management and performance evaluation of government services; pension and administrative reforms to control personnel expenditures; improved and transparent procurement procedures; transparent political structure; and elected decision-makers accountable to voters. These changes will take place over time. In the meantime domestic borrowing trends will change incrementally as local governments have better access to capital, but with creditors being more selective in choosing borrowers.

### *Privatizations and Concessions*

Local governments look to the panacea of the private sector and concessions to provide their citizens with more efficient and hopefully cheaper services. However, the government still has a critical role to play in regulating the private companies and, from a financing perspective, to develop concession agreements that clearly allocate construction, commercial and political risks, and are transparent and well developed. Development of concession agreements goes hand in hand with the development of the legal and institutional regulatory environment required to control private service providers.

A trend that is emerging in concession and privatization financing is the increasing need for foreign creditors to participate in equity returns of projects. With companies and international investors seeking higher returns on their limited capital resources, the response could be the use of financing structures with convertible debt features. Concessions also act as a stimulus for the development of the local capital market as domestic financial institutions participate with foreign lenders and developers in projects. Transfer of “financial engineering” technology and the interchange of credit risk concepts among foreign and local creditors will lead to further sophistication of domestic financing instruments. Several innovative debt and equity financings have recently emerged in Asia, targeted to the domestic Asian capital markets.<sup>2</sup> This “diffusion of innovation”, to borrow a term from communications theory, will most likely accelerate in the near future, supported by the rapid change in global communications technology. However, significant gaps will continue to exist between subnational entities and foreign and domestic concessionaires and creditors. Filling in these institutional gaps by supporting appropriate forms of technical assistance and loan programs is an effective role for the World Bank.

Concessions are broadening to solid waste and other traditional urban services. The pace at which these

projects advance into new sectors and deepen within the sectors will depend, to a large degree, on the availability of financing, both domestic and foreign. Financing structures will continue to change and merge toward higher equity participation by lenders (an oxymoron, but true nevertheless) as the opportunity cost of capital raises the return threshold. This will require that regulatory bodies become more vigilant in the supervision and control of banks, especially in developing countries. Banks over-extended in financing urban infrastructure projects can be a significant problem, as was experienced in Mexico. Hopefully the role of banks may be supplemented by pension funds and other institutional investors that allocate part of their resources into urban infrastructure investments that meet their return requirements.

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#### *TO LEARN MORE*

*Infrastructure Note, FM-7, October 1994, “Findeter: Financing Municipal Investment in Colombia” by O. Alvarado and V. Gouarne.*

*Infrastructure Note, FM-8a, February 1997, “Municipal Bond Markets—Experience of the USA” by Samir El Daher.*

*Infrastructure Note, FM-8b, February 1997, “Municipal Bond Markets—Prospects for Developing Countries” by Samir El Daher.*

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<sup>2</sup> These include: (1) a 5-year US\$138 million transferable loan facility issued by Road King Infrastructure Finance Limited (RK), a private company listed on the Hong Kong Stock Exchange. RK has interests in 10 Chinese toll roads; (2) US\$128 million secured Asia bonds due in 1999 for the Tanayoung Public Company Limited. Tanayoung will on-lend the funds to support its mass transit subsidiary building a metro in Bangkok; and (3) 3-year US\$175 million Guaranteed Floating Rate Notes issued by PT Citra Marga, a joint venture tollroad operator with PT Jasa Marga (National Toll Road authority) and PT Krakatau Steel as major shareholders.

TABLE 1

RECENT SUBSOVEREIGN EUROBOND OFFERINGS			
Agency	Amount (Millions US\$)	Maturity	Security
City of Prague	250	5 years	General Revenues
Provincial Bank Cordoba	60	2 years	General Revenues
State of Minas Gerais/CEMIG*	200	5 years	General Revenues CEMIG Warrants
Banco de la Ciudad Buenos Aires	100 commercial paper	180–365 days	General Revenues
Municipality of Rio de Janeiro	125	3 years	General Revenues
Zhuhai Highway Company LTD.	85 Senior 115 Subordinated	10 years 12 years	Usage Fee and Entry Tolls
El Dorado Airport Bogota, Colombia	116	15 years	Landing Fees Aerocivil Revenue Guarantee
Province of Mendoza Collaterallized Oil Royalty Notes	150	6 years	General Revenues Escrowed Oil Revenues
Bogota, Colombia (Syndicated loan)	100	5 years	General Revenues

\*The bonds included the rights to buy preferred shares in the state-owned electric company, CEMIG, within three years of the issue date and at a specific price. These “covered warrants”, or rights to purchase shares, provided an equity type of kicker to the bonds which made them more attractive given the perceived value of CEMIG, the stock market value at the time of the bond offering, and the price of the warrants.