

SNTA Briefs

Sharing knowledge, experiences, and innovations in sub-sovereign financing for infrastructure

The Advantages of Structured Financing for Sub-National Authorities

An Introduction to Structured Financing for Sub-Nationals

David Painter and Joshua Gallo

In principle, sub-national authorities have several financing models to choose from for their infrastructure projects. A common model involves the authority taking a long term loan from a bank. Since most commercial banks do not lend for the length of time appropriate for infrastructure projects (15 years or more), this type of loan is most likely to come from a development bank or national government agency. Another model involves the authority entering into a public-private partnership. In this model the responsibility for mobilizing the capital for the infrastructure project normally rests with the private sector partner rather than the authority. Neither of these first two models involves the sub-national authority obtaining long term financing from local capital market investors. In the right environment, institutional investors in a country's local capital market can be an important source of financing for infrastructure development.

Capital market financing for sub-national infrastructure development has a long history in some countries, but is essentially unknown in many others. There are three basic models for capital market financing: 1) general obligation financing; 2) project financing; and 3) structured financing.

All three models use bonds (or similar securities) as the financing mechanism. In well developed capital markets all three models operate successfully, and sub-national authorities use the model that works best in their specific situation. In developing capital markets it is likely that some or all of these models are untested, and sub-national authorities will have

to determine which model is most attractive to local investors.

General obligation financing

General obligation financing involves sub-national authorities' issuing long term General Obligation (GO) bonds. The term "General Obligation" means that the authority's pledge to repay bondholders obligates all revenue streams and assets belonging to the authority. With a GO bond, debt service payments are a line item in the authority's budget and the money comes from the general fund of the authority. One would think that an authority pledging all sources of revenue and all assets to bond repayment would be reassuring to investors. Indeed, in the municipal bond market of the United States this is the most common financing model used by local governments for infrastructure development.

However, the degree to which investors feel reassured by a GO pledge depends on their perception of the issuing authority's creditworthiness. The risk is that the authority may get into financial difficulties and become unwilling or unable to repay their debt. If the issuing authority has a credit rating, then investors can measure the risk of a default. If the authority's rating is "investment grade" (BBB-) or better on the country's national rating scale, then local investors may be willing to buy the bonds. But

David Painter is a Development Finance Consultant, and Joshua Gallo is Program Leader for PPIAF's Sub-National Technical Assistance Program.

A simplified example

Let's imagine that a sub-national authority wants to borrow local currency (LC) to finance an LC 100 million infrastructure project. In this example, the credit rating agency gives the authority a national scale rating of A+(ns) which is investment grade, but below the national government's bond rating of AAA(ns). Further imagine that research by the authority's public finance advisor shows that national government bonds with a 15 year term carry an interest rate of 5%, but meetings with potential lenders and investors reveal that a 15 year borrowing by an authority rated A+(ns) has to pay 10% interest to attract financial institutions into lending LC 100 million.

Let's assume that debt service on a LC 100 million borrowing with a 10% interest rate for 15 years (LC \$13.1 million principal and interest each year) is not considered affordable by the authority. So the authority asks their public finance advisor to propose a more affordable way to obtain long term financing.

Now imagine the following scenario...

- The infrastructure project is expected to generate user fees of LC 20 million annually with a total operating & maintenance cost of LC 8.5 million per year.
- The credit rating agency reviews the project and determines that, due to a variety of project risks, a borrowing based solely on repayment from user fees would be rated BBB(ns) and would have to offer 15% interest to raise LC 100 million, and this would increase annual debt service to LC 17.1 million. This would make the project financially unviable.
- At the authority's direction, the public finance advisor designs a structured obligation based on a 50% partial risk guarantee purchased from a guarantor that has a AAA rating.
 - o The structure makes 50% of the borrowing "risk free" and equivalent to AAA(ns) while the other 50% of the borrowing remains an A+(ns) risk.
 - o The partial risk guarantee requires the authority to pay the guarantor an annual fee of 0.5% on the outstanding balance of the borrowing.

- o The guarantor pledges to reimburse the authority's lenders/investors 50% of any principal lost in the event that the authority defaults on its debt.

- The credit rating agency reviews the partial risk guarantee structure and determines that it reduces the risk of default enough to qualify the total borrowing for a AA+(ns) rating which would enable the authority to borrow at an interest rate of 7%.
- The authority successfully borrows LC 100 million for a 15 year term at an interest rate of 7% and pays another 0.5% per year for the partial risk guaranty. As a result, the annual cost of the borrowing to the authority is LC 11.3 million but this is expected to be covered from the LC 11.5 million annual net revenue available from the project.

the return (interest paid) has to be commensurate with the risk. The better the rating, the lower will be the interest that the authority has to pay. If the authority is not rated investment grade, or not rated at all, they will not be able to sell their bonds in the local capital market.

The problem of using GO bonds in a developing capital market is that most sub-national authorities are not rated BBB- or better (if they are rated at all). Local investors generally perceive sub-national authorities as very risky or simply not creditworthy at all. In such an environment, it will be difficult (if not impossible) for a sub-national authority to obtain long term financing with a GO bond issue.

Project financing

Project financing using the local capital market typically involves a sub-national authority issuing long term revenue bonds which pledge only the fee revenues that are to be derived from the operation of the infrastructure project itself. The issuing authority's other revenues and assets are not obligated to repayment of the debt. With a revenue bond, bondholders have first claim on revenues from the project but the money still flows through the authority's accounts. The fundamental risk is that the project will not generate sufficient fee revenues to repay the debt, and there is no recourse to any other revenues of the authority.

The municipal bond market of the United States is the most common financing mode used by local authorities

Revenue bond repayment risk is compounded by risks associated with the project itself such as:

Revenue bond repayment risk is compounded by risks associated with the project itself such as:

- the risk of construction falling behind schedule or going over budget
- the risk that the infrastructure will not work properly after the project is built
- the risk that there are fewer users of the infrastructure than projected
- the risk that user fee increases fail to keep up with rising costs of operation and maintenance

In countries with developing capital markets, local investors are likely to believe that the repayment risk on an infrastructure revenue bond is very high. While a credit rating can be obtained for a specific revenue bond, if the revenues pass through the authority's accounts, then the bond's rating can never exceed the rating of the authority itself. As a result, revenue bond project financing has not proven to be a successful financing model for infrastructure development in countries with developing capital markets.

Structured financing

Structured financing involves a sub-national authority issuing long term structured obligation (SO) bonds which differ from GO financing and project financing in several important ways. SO bonds pledge debt repayment based on one or more specific revenue sources available to the issuing authority. Unlike project financing, the revenue need not be generated only by the infrastructure itself, but can be a combination of revenue streams that have proven to be reliable from long experience. Unlike GO financing, the SO bond repayment mechanism is typically structured so that the obligated portion of the pledged revenues bypass the authority's general fund and are held in a separate debt service account that cannot be accessed by the authority. The only withdrawals permitted

from the debt service account established by an SO bond (and administered by an impartial third party) are those that are disbursed directly to bondholders.

SO bonds avoid the risks inherent in project financing, and they can also achieve credit ratings that are higher than the GO rating of the issuing authority itself. Credit rating agencies can analyze the structural elements of an SO bond to determine the risk that the structure may fail to repay the bond holders. If the bond is carefully structured (a task that should be performed by an experienced public finance advisory firm) then it will be assigned a high credit rating.

The SO bonds of some sub-national authorities have even been rated near AAA on their national scale. Because of their high credit quality SO bonds are very attractive to local investors in countries with developing capital markets. In more than one country SO bonds were the financing model first used to introduce long term sub-national debt securities in the capital market.

The Sub-National Technical Assistance (SNTA) Program

As more and more countries decentralize, the provision of infrastructure is increasingly becoming the responsibility of sub-national authorities (local governments and public utilities). These authorities are finding it necessary to seek long term private financing for their infrastructure projects. Using annual budget allocations to build infrastructure is difficult to manage because the funds required vary greatly from year to year. Long term debt financing allows sub-national authorities to smooth out the annual funding requirement by borrowing a large amount of capital at one time and then repaying the debt in predictable annual increments small enough to make the project affordable to the people served. The Public Private Infrastructure Advisory Facility (PPIAF) works with sub-national authorities to enable access to private financing on the best possible terms, and shares the lessons learned from its global experience.

SNTABRIEFS

SNTAbriefs share emerging knowledge on sub-sovereign financing and give an overview of a wide selection of projects from various regions of the world. Related notes can be found at www.ppiaf.org. SNTAbriefs are a publication of PPIAF (Public-Private Infrastructure Advisory Facility), a multidonor technical assistance facility.

The views are those of the authors and do not necessarily reflect the views or the policy of PPIAF, the World Bank, or any other affiliated organization.

For more information visit the PPIAF website at www.ppiaf.org.