While the global financial crisis has generally slowed the development of emerging bond markets, interest in bond financing of infrastructure in Africa continues to grow in anticipation of the recovery. Across the region, governments are increasingly cognizant of the role of large infrastructure investments as a stimulus to support economic growth. For utilities or local authorities in Africa seeking to raise financing to meet the pressing demands for infrastructure, the discipline and transparency inherent in a robust bond market can reduce risk and lower the cost of capital. This note provides an overview of bond markets and discusses the advantages and challenges that subnational borrowers should consider.

Over the past decade Africa has seen growing interest in debt financing mechanisms once used almost exclusively in the developed world. High rates of growth, rising commodity prices, and the emergence of capital market authorities across the region have attracted investors to bond markets. Much of the activity has been in corporate and sovereign bonds. But as responsibility for infrastructure development devolves to utilities or local authorities, subnational entities are also turning to bond markets for financing. Although the global financial crisis has reduced liquidity, interest in bond financing continues to grow in anticipation of the recovery and as a stimulus to support economic growth.

Why all the interest in bonds?

Subnational (or subsovereign) bonds provide a mechanism for raising long-term private capital. They can be issued by a host of subnational entities, including local authorities, states or provinces, school districts, and utilities. Subnational bonds generally do not have the explicit backing of the national or federal government. If the issuer defaults, the national government has no obligation to step in and repay the investors.

Subnational entities most often use bonds to raise financing for infrastructure projects, because their tenor can more closely match the life of the infrastructure being developed. Bond financing is also an equitable alternative, as it enables all the beneficiaries of the infrastructure to share in the burden of repayment. In the absence of these long-term instruments, capital expenditures in many emerging markets are financed out of external, hard-currency loans, central government grants or loans, or recurrent budgets.

The long terms of bonds are also attractive to certain investors. Bonds offer a good match for the long-term obligations of pension funds and life insurance companies, for example. In emerging markets subnational bonds typically extend for periods of 3–10 years and have variable interest rates. In more developed markets they can extend to 30 years and may offer fixed or variable returns. Bonds have also been issued for shorter periods to pay for maintenance or operating expenses.

Why not loans?

Most subsovereign debt in emerging markets has been in the form of loans or private placements. Securing loans is perceived as faster and less expensive. It’s not uncommon for banks to offer unsolicited loans to entities perceived as creditworthy. The lender might not even require a formal credit rating. Given the lack of transparency and competition,
A critical requirement for revenue bonds is that systems (or firewalls) be established to prevent the issuing entity from using the funds that have been committed to servicing the debt. Without clear segregation of revenue streams, the integrity of the revenue bond would be compromised.

### What are the risks?

Like all financial instruments, bonds have associated risks that issuers and borrowers must consider. The most important is credit risk, relating to the issuer’s willingness and ability to repay the debt. To assist in the assessment of creditworthiness, the issuer typically provides audited financial statements, commits to future disclosures, and often undergoes a credit rating.

Another form of risk is call risk, the possibility that the issuing authority may repay all or part of the outstanding debt before the due date. While it might appear that investors would welcome early repayment, many are attracted to bonds because of the long-term, predictable cash flow. A disruption in this income stream, even by an early repayment, adds expenses for investors and could result in lower returns if the market has deteriorated since the initial offering. Some bonds may not allow a call provision; others may include a premium to be paid to the investors if the bond is repaid early.

Related to this is secondary market risk, which refers to changes in the overall economy and the impact on interest rates. For example, if interest rates increase after a bond is purchased, investors may be locked into investments that are underperforming.

In emerging markets, where oversight and regulation are less mature, investors will be particularly cognizant of institutional risks, which relate to the oversight and regulatory systems. Investors will look for assurances that changes in government policy or political leadership will not interfere with the repayment of the bond.

### What is the role of rating agencies?

Since credit risk is the most important factor in attracting investors and pricing the bond, an adequate and independent assessment of this risk is vital. Private credit rating institutions provide investors with an independent review of the borrower and make a judgment on the likelihood of default. A better credit rating generally means lower costs for the bond issuer.

While an estimated 60 credit rating agencies operate worldwide, three dominate the market: Fitch Ratings, Moody’s Investors Service, and Standard & Poor’s. The rating agencies have done many things well. Their standardized approach enables them to assess and compare factors affecting debt repayment across service providers, countries, and regions.
They consistently examine the same factors and rate strengths and weaknesses against set criteria. In the subnational debt market the raters generally examine revenue streams, rates and taxes, expenditures and capital investment plans, key personnel, human resources, financial management, and other factors that affect the fiscal health of the issuing authority and its ability to repay.

Yet the current financial crisis has led to renewed scrutiny of the rating agencies. Critics charge that they have been slow to respond to downturns and tend to be reactive rather than proactive in dealing with problems. Others highlight conflicts in the compensation system, in which the rated entity pays for the credit rating. A more appropriate system, critics argue, would be to have investors pay for the rating agency services, which would increase transparency and objectivity. Finally, in some instances rating agencies have simply misdiagnosed risk, resulting in losses for investors. Nevertheless, the systematic, independent analysis provided by rating agencies is key in assessing risk and is likely to remain a fixture of the bond market for the foreseeable future.

**How to mitigate the risks?**

Some external features can improve the creditworthiness of a bond and, if structured correctly, can often reduce the cost of capital to the issuer. While these enhancements may provide real value, the critical issue is whether they are needed and how they can best be structured. At a minimum, it is imperative that they focus on real risk.

In Africa one common approach has been to use a partial guarantee from donors, and the financial crisis has only heightened the interest in this additional form of security. Guarantees can be structured in a variety of ways to help mitigate perceived risk. In emerging markets, where the tenor of bonds tends to be shorter, guarantees can help extend the term of the bond—say, from 8 years to 12—and reduce initial debt service payments. The longer terms ease repayment burdens and more closely match the life of the infrastructure being financed.

Interestingly, while guarantees often do not directly reduce interest rates, the additional leverage they provide in structuring the bond makes it more efficient in matching the life of the infrastructure and thus more cost-effective for the borrower. Moreover, as guarantees have become more popular, their costs have tended to decline.

Intercepts, which permit investors to seek repayment from other sources of revenue in the case of default, are another form of enhancement. In Africa the most common alternative sources are intergovernmental transfers from central governments and business and property tax revenue.

Some investors may seek comfort by requiring the issuer to place a portion of the funds into an escrow account, to accumulate revenues for redeeming part or all of the bond. Generally referred to as sinking funds, these resources cover debt service if the issuer should run into repayment problems. Alternatively, investors can ask the borrower to place funds into an account that will grow over time and cover the principal of the loan. Referred to earlier as zero coupons, these enhancements limit the investors’ risk to interest payments.

The tax status of bonds can be another source of appeal for investors. In some instances policy makers have determined that the proceeds of bonds create a public good, such as roads or schools, and that the interest payments to those holding the bonds should therefore be fully or partially tax free. But these tax holidays have often been criticized as an inefficient public subsidy.

**What makes for a vibrant market?**

Perhaps the most significant factor in creating a vibrant bond market is a sound enabling environment. Issuers need clear, concise guidelines on how bonds are originated, placed, and, if appropriate, traded. They also need guidelines on transparent approval processes for bond issues, while investors look for systems that minimize political interference. A sound enabling environment also encourages bond issuers
to produce audited annual financial statements and to notify investors of material adverse events. The aim is to increase transparency and provide early warning when revenue or other factors limit the ability of a bond issuer to make debt service payments.

Similarly, investors in bonds, particularly those whose repayment depends on property taxes or water or electricity tariffs, want to ensure that there is a clear, independent, and transparent system for setting and reviewing rates and collecting revenues. Rate increases are notoriously unpopular and, in some markets, historically politicized. As a result, bond investors look for systems that make debt repayment a priority and that ensure that utilities, local authorities, and regulators have the independence and ability to raise rates when necessary to cover repayments.

How to get to the market?

How to approach investors is also an important consideration. Issuers can place bonds competitively or through negotiated private placement. Both methods have costs and benefits (box 2). Competitive bond sales can involve higher up-front administrative fees and typically take longer. But they are much more transparent and can often result in lower costs. Private placements tend to be used in mature markets where there is a robust bond market, costs are generally known, and advisers assist issuers in structuring the issue and negotiating the price.

What is the outlook today?

While the outcome of the financial crisis is far from clear, there is little doubt that it has slowed the development of bond markets in Africa. Yet the demand for infrastructure remains strong, and pressure to maintain and expand delivery of critical services will only increase as more job seekers flock to urban centers. Emerging economies will continue to need greater power supply, more water services, and better transportation networks. For entities seeking to raise financing to meet these needs, the discipline and transparency inherent in a vibrant bond market can reduce risk and lower the cost of capital.

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BOX 2
How methods for selling bonds compare

PRIVATE PLACEMENTS
• Tend to get to the market faster
• Generally have lower administrative costs
• Can result in higher interest payments
• Often used in more mature markets
• May not be permitted by market regulators

COMPETITIVE SALES
• More transparent
• Generally lower interest rates
• Typically higher placement costs
• May take longer

Public-Private Infrastructure Advisory Facility

PPIAF is a multidonor technical assistance facility. Through technical assistance and knowledge dissemination PPIAF supports the efforts of policy makers, nongovernmental organizations, research institutions, and others in designing and implementing strategies to tap the full potential of private involvement in infrastructure.

PPIAF’s Sub-National Technical Assistance Program (SNTA) helps subnational entities and publicly owned utilities improve their creditworthiness.

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