SUBNATIONAL DEBT FINANCE: MAKE IT SUSTAINABLE

By Otaviano Canuto and Lili Liu

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This chapter explores the impact of the 2008–09 global financial crisis on subnational debt financing through the following questions: Why is subnational debt financing important? What are the impacts of the crisis on the fiscal balance and financing cost of subnational governments (SNGs)? What explains the variations across countries in the ability of SNGs to proactively address the threat of fiscal deterioration? And what are the long-term structural challenges facing SNGs in sustainable financing of infrastructure and social services?

The Rising Importance of Subnational Debt Finance

State and local debt and debt of quasi-public agencies have been growing in importance. In Brazil, subnational debt accounts for about 30 percent of total public sector net debt. The debt of Indian states is about 27 percent of gross domestic product (GDP) (the number would be higher if debt on the balance sheets of companies such as power and water, which are wholly or largely owned by the states, were included). The rising share of subnational finance in consolidated public finance is not limited to federal countries. In France, SNGs account for more than 70 percent of public investment. Even in countries where varying degrees of fiscal decentralization have been recent, SNGs account for an increasing share of public investments—for example, approximately 50 percent in Indonesia and Turkey.

Three structural trends have contributed to the rising share of subnational finance including SNG debt as a share of general public debt. First, decentralization in many countries has given SNGs certain spending responsibilities, revenue-raising authority, and the capacity to incur debt. With sovereign access to financial markets, SNGs are pushing for access to these markets as well, particularly given the rising regional and subnational political power that is a driving force in decentralization.

Second, the unprecedented scale of urbanization in developing countries requires large-scale urban infrastructure financing to help absorb massive influxes of rural populations. Borrowing enables SNGs to capture the benefits of major capital investments immediately, rather than waiting until sufficient savings from current income can be accumulated to finance them. Infrastructure investments benefit future generations that therefore should also bear the

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2 The term subnational refers to all tiers of government and public entities below the federal or central government. Subnational entities include states or provinces, counties, cities, towns, public utility companies, school districts, and other special-purpose government entities that have the capacity to incur debt.

3 Data are from government Web sites and World Bank country teams.
Subnational borrowing finances infrastructure more equitably across multigenerational users of infrastructure services because the debt service can match the economic life of the assets that the debt is financing. Infrastructure services thus can be paid for by the beneficiaries of the services.

Third, the subnational debt market in developing countries has been going through a notable transformation. Private capital has emerged to play an important role in subnational finance in countries such as Poland, Romania, and the Russian Federation. Subnational bonds increasingly compete with traditional bank loans. Notwithstanding the temporary disruption of the subnational credit markets during the crisis, the trend toward more diversified subnational credit markets is expected to continue. SNGs or their entities in various countries have already issued bond instruments (for example, in China, Colombia, India, Mexico, Poland, Russia, and South Africa). More countries are considering policy frameworks for facilitating subnational debt market development (for example, Indonesia), whereas others are allowing selected subnational entities to pilot-test transaction and capacity-building activities (for example, Peru).

The Financial Crisis: Impact and Response

The global financial crisis has had a profound impact on subnational finance across countries. Slower or negative national and regional economic growth has generally reduced the SNGs’ own revenues; the exact impact is influenced by the revenue structure of the SNG. SNGs with strong dependence on revenues from highly cyclical economic activities such as housing and commodity exports will have experienced more negative impact than will the SNGs that have more stable revenue sources such as property taxes based on delayed assessment. SNGs relying heavily on sales tax, the value-added tax, and income taxes also have experienced reduced revenues. Fiscal transfers that are based on formulas with a time lag will suffer less immediate impact, although the pressures are only being delayed.

The deterioration in primary balance is driven by declining revenues combined with expenditure rigidity or continuing expenditures. In general, the fiscal needs of countries are rising but fiscal space is narrowing, resulting in deteriorating fiscal positions across regions and tiers of government. In the BRIC countries (Brazil, China, India, Russia) and four advanced economies (Australia, Canada, France, and Spain), the rising fiscal deficit happened across all these countries except Brazil from 2008 to 2009.4

All major rating agencies have viewed the impact of the economic downturn on the credit qualities of SNGs as significant (Fitch Ratings 2009; Moody’s Investor Service 2010; S&P 2010). From October 2008 to January 2010, Moody’s rating actions affected 72 SNGs, or 24 percent of the rated universe outside the United States. Ninety-six percent of the actions were in

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4 See Canuto and Liu (2010) for details. For Brazil, the improvement in 2009 was largely the result of a fall in interest payments as a share of GDP (from 1.85 percent in 2008 to 0.47 percent in 2009). This decline is linked to deflation in the General Price Index, which indexes state debts with the federal government.
a downward direction. There was a general shift toward negative outlooks for 2009 in the Fitch ratings of European SNGs, and the downward pressure continued into 2010. Similarly, S&P’s negative rating actions for European SNGs largely exceeded positive ones in 2009, and the trend was present in the first half of 2010.

A liquidity squeeze and lower risk appetite generally led to higher financing costs at the height of the crisis, as measured by the cost of subsovereign bond issuances. Although the cost of financing has declined since mid-2009, the rapid increase in public debt levels across many countries is likely to raise longer-term interest rates (Blommestein 2010). Yield spread for subnational bond issuance (outside the United States) steadily increased from the first quarter of 2008 to the second quarter of 2009, whereas maturity exhibited a generally declining trend from the third quarter of 2007 to the first quarter of 2009. Further decomposing yield spread, the rising spread was driven mainly by the rising spread of bonds with a maturity of less than seven years, while the impact on those with maturity of seven years or longer has not been as significant. However, the share of subnational bonds with a maturity of seven years or more declined from 60 percent in 2007 to 41 percent in 2009. In the United States, the spread for AAA-rated 10-year U.S. municipal general obligation bonds increased by 200 basis points from the fourth quarter of 2007 to the fourth quarter of 2008. There are, however, significant variations in the access to and cost of SNG debt financing across and within countries.

To counter the global financial crisis, countries have launched countercyclical macroeconomic policies. The ability of SNGs to cushion the impact of the crisis is framed by national-level responses. Central governments have launched a range of measures to help SNGs weather the crisis. These include relaxing fiscal and indebtedness targets and broadening the fiscal space for new borrowing (for example, Brazil and India), creating a credit line for SNGs that have suffered a loss of fiscal transfers (for example, Brazil), providing low-cost loans for SNGs and increasing fiscal transfers (for example, Russia), providing financing for SNG infrastructure spending and other core services, and expanding SNG access to capital markets through subsovereign bond issuance (for example, China). In the United States, the American Recovery and Reinvestment Act of 2009 provided nearly US$135 billion in emergency funding, helping states avoid draconian cuts in services.

For example, 31 percent of the rated SNGs in Central and Eastern Europe and the Commonwealth of Independent States experienced downward rating actions. By comparison, 6 percent of rated SNGs in the Latin American region had downward rating actions.

It is difficult to obtain comprehensive data on the cost and structure of bank loans to SNGs.

The source for SNG bonds issued outside the United States is DCM Analytics. Data coverage for bond issuances with a maturity of less than three years is incomplete. Data may not include entities largely or wholly owned by SNGs (such as public utilities) except for China and India. Data for the United States are from Bloomberg. Municipal bonds in the United States include those issued by states, municipalities, districts, and special-purpose vehicles of SNGs. The 200-basis-point increase was from -28 to 170. The yield for 10-year treasury bonds declined by 45 percent while the yield for AAA-rated 10-year municipal general obligation bonds increased by 5 percent from the fourth quarter of 2007 to the fourth quarter of 2008.

Sources: Government Web sites; Fitch (2009); NGA/NASBO (2009); and World Bank country teams.
Long-term Structural Issues

Looking beyond the crisis and stabilization, a series of long-term structural issues with respect to SNG debt finance will occupy developing countries. Rapid urbanization, with unprecedented rural-to-urban migration, will continue to demand massive urban infrastructure investments—investments that largely have been decentralized to SNGs in many countries. Developing countries invest an annual average of 3 to 4 percent of GDP on infrastructure, well short of what is considered to be required. The scale and sustainability of SNG infrastructure financing will critically depend on the macroeconomic fundamentals of the sovereign, the regulatory frameworks for subnational borrowing, the management of implicit and contingent liabilities, and the development of competitive and diversified subnational credit markets.

Macroeconomic Fundamentals

The sovereign’s macroeconomic fundamentals will continue to be vital to the fiscal sustainability of SNGs. With the gradual withdrawal of fiscal stimulus packages and the ending of monetary easing, pressures on SNGs’ fiscal space could increase through various channels, such as reduced fiscal transfers and higher borrowing costs.

Major international rating agencies (Fitch, Moody’s, and S&P) cap subsovereign credit ratings by the sovereign credit ratings, and rarely do subsovereign ratings exceed that of the sovereign (figure 13.1). A country’s macroeconomic management and countrywide risks affect not only the broader economic, fiscal, and financial conditions under which an SNG operates, but they also place restrictions on an SNG’s ability to raise funds. The national government typically has a wide range of constitutional powers giving it first claim over the country’s foreign reserves and other resources. Thus, in a financial crisis, the national government would likely be able to fulfill its external or domestic debt obligations ahead of the SNG. The rating “ceiling” relationship applies less strongly to domestic currency debt instruments. Even in cases where the SNG possesses foreign currency reserves that are out of reach of the national government, the national government nevertheless could impose nationwide capital or exchange controls to restrict capital outflows and thereby disallow the SNG from repaying its foreign debts. In short, the sovereign is unlikely to default before any SNG does.
Figure 13.1 Correlation between Sovereign and Subsovereign Ratings of European Countries

Note: The sample size is 141 subsovereign governments from 22 European countries. One dot can represent multiple subsovereigns because many of them share the same sovereign and subsovereign ratings. The only subsovereigns whose ratings exceed its sovereign rating are the Autonomous Community of Basque Country and Navarre of Spain (the dot below the 45° line). Ratings used are as of February 23, 2010

Regulatory Frameworks for Subnational Debt Financing

With subnational debt financing come the risks of insolvency. During the 1990s, countries such as Brazil, Hungary, India, Mexico, Russia, and Turkey experienced subnational fiscal stress or debt crises, which led to reforms to strengthen regulatory frameworks for subnational borrowing and credit risks. Developed countries such as France and the United States have had their own experiences of subnational insolvency, which led to the establishment of systems to regulate the risks.9

9 With over 200 years of subnational capital market development, the United States implemented a series of legal and institutional reforms. Among them: many states imposed constitutional limits on their debt in the 1840s after the states’ debt crisis (Wallis 2004), the enactment of Chapter 9 of the Bankruptcy Code during the Great Depression (McConnell and Picker 1993), and an Internet-based disclosure system (Haines 2009). Decentralization in France started in 1982. After episodes of SNG insolvency in the early 1990s, a regulatory system was developed.
Addressing soft budget constraints is a strong motivation for countries to develop regulatory frameworks. Soft budget constraints allow SNGs to live beyond their means, negating competitive incentives and fostering corruption and rent-seeking (Weingast 2007). Unconditional bailouts of financially troubled SNGs by the central government create a moral hazard. Market participants may tolerate unsustainable fiscal policy of an SNG if history backs their perception that the central government implicitly guarantees the debt service of the SNG (Ianchovichina, Liu, and Nagarajan 2007). However, regulatory frameworks alone cannot ensure sustainable fiscal policy. A gap-filling grant transfer system, for example, induces SNGs to run fiscal deficits. Lack of own-source revenues for SNGs in many countries undermines their ability to make fiscal corrections. Furthermore, a competitive capital market prices risks and returns of subnational lending, helping discipline subnational borrowing from the capital market side. But this market discipline could be undermined by monopoly supply of credits to SNGs (Liu and Waibel 2008).

Regulatory frameworks consist of two components: (a) ex ante fiscal rules for SNGs, stipulating purposes and types of and limits for debt instruments, and issuance procedures; and (b) ex post debt restructuring in the event that SNGs become insolvent. Insolvency mechanisms increase the pain of circumventing ex ante rules for both lenders and borrowers, thereby strengthening preventive rules. Regulatory frameworks in many countries are still evolving, and the pace of putting together a full range of regulatory elements varies.

Liu and Waibel (2008) point out some key common elements in ex ante borrowing regulation across countries. First, long-term borrowing should be only for public capital investments, that is, a balanced budget net of public investment. Second, limits should be imposed on key fiscal variables such as debt service ratios and ceilings on guarantees. Third, increasingly, legal frameworks include procedural requirements that SNGs establish a medium-term fiscal framework and a transparent budgetary process. This requirement is intended to ensure that fiscal accounts move within a sustainable debt path and that fiscal adjustment takes a medium-term approach to better respond to shocks and differing trajectories for key macroeconomic variables. It also fosters a more transparent budgetary process through longer-view debates by executive and legislative branches on spending priorities, funding sources, and required fiscal adjustments.

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10 In the United States, the no-bailout principle was established during the states’ defaults in the 1840s (Wallis 2004). In Hungary, a motivation for establishing a bankruptcy framework for subnationals was to impose a hard budget constraint for SNGs and change the perception among lenders that there was an implied sovereign guarantee. In Brazil, after prior bailouts of SNGs, the federal government in 1997 required subnational fiscal adjustment in return for debt relief.

11 Developing countries that have adopted this “golden rule” include Brazil, Colombia, India, Peru, Russia, and South Africa. Short-term borrowing for working capital should be allowed, but with provisions to prevent governments from rollover borrowing as a way of financing operating deficits.

12 In India, fiscal responsibility legislation of many states specifies eliminating revenue deficits and reducing fiscal deficits. In Colombia, SNGs are prohibited from borrowing if the interest-to-operational-savings ratio is greater than 40 percent and the debt-stock-to-current-revenue ratio is greater than 80 percent. In Brazil, the debt restructuring agreements between the federal government and the states in 1997 established a comprehensive list of targets including debt-to-net-revenue ratio and personnel spending. In the United States, most states each set fiscal limits for themselves and for their local governments. For more see Liu and Waibel (2008).

13 Brazil, Colombia, India and Peru, for example (Liu and Waibel, 2008).
Ex ante fiscal rules for SNG debt financing can also be supported by regulations on lenders. To improve fiscal transparency, Mexico introduced a credit-rating system for SNGs. Although subnational participation in the credit rating is voluntary, the requirements of the capital-risk weighting of bank loans introduced in 2000 and of loss provisions introduced in 2004 aim at imposing subnational fiscal discipline through the market pricing of subnational credits. In Colombia, the Fiscal Transparency and Responsibility Law (2003) tightened the regulations on the supply side. Lending to SNGs must meet the conditions and limits of various regulations, such as Law 617 and Law 817. Otherwise, the credit contract is invalid and borrowed funds must be restituted without interest or any other charges.

Ex post regulation—that is, an insolvency mechanism—deals with insolvent SNGs. It serves multiple objectives: to enforce hard budget constraints on SNGs, to maintain essential services while SNGs undergo debt restructuring, and to restore the financial health of the SNGs so that they reenter the financial market. The need for a collective framework for resolving debt claims is driven by conflicts between creditors and debtor, and among creditors. Creditors’ remedies in contract laws, instead of bankruptcy mechanisms, are effective for enforcing discrete unpaid obligations. However, individual lawsuits or negotiations become ineffective if there is a general inability to pay. Individual creditors may have different interests and security provisions for the debt owed to them and may often demand preferential treatment and threaten to derail debt restructurings voluntarily negotiated between a majority of creditors and the subnational debtor—the so-called holdout problem (McConnell and Picker 1993). This problem causes uncertainty and prolongs the debt restructuring process. The holdout problem is not as serious if debts are concentrated in a few banks. However, a collective framework for insolvency restructuring takes on more importance as the subnational bond markets develop—with thousands of creditors.

Key design considerations arise concerning insolvency procedures—namely, the fundamental difference between public and private insolvency, the choice between judicial or administrative approaches (including the extent to which the legal authority of SNGs to govern may be effected judicially or administratively), and the operation of the insolvency procedure itself. On the first, the public nature of the services provided by governments explains the fundamental difference between public and private insolvency. When a private corporation goes bankrupt, all assets of the corporation are potentially subject to attachment. By contrast, the ability of creditors to attach assets of SNGs is greatly restrained in many countries. Thus, the insolvency mechanism for subnationals generally involves reorganization, not asset liquidation.

The choice of approaches varies across countries, depending on history, political and economic structure, and motivation for establishing an insolvency mechanism. Judicial procedures place courts in the driver’s seat. Courts make key decisions to guide the restructuring

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14 For a detailed cross-country comparison of subnational insolvency systems, including design and motivation, see Liu and Waibel (2009).
15 In Hungary, the goal of neutralizing political pressure for bailing out insolvent SNGs favored the judicial approach. South Africa’s approach is a hybrid, blending administrative intervention with the role of courts in debt restructuring and discharge. In Brazil, the federal government chose an administrative approach in 1997 and imposed a fiscal and debt adjustment package. Resolving the holdout problem during the Great Depression, when municipal defaults were widespread, was the primary motivation for the United States to enact Chapter 9 (McConnell and Picker 1993). No uniform approach exists across states. State consent is a precondition for municipalities of the state to file Chapter 9 in federal court. Many states have their own system for dealing with municipal insolvency.
process, including when and how SNG insolvency is triggered, a priority structure for allocating credits among competing claims, and which services will be maintained. Because the debt discharge is highly complex, the judicial approach has the advantage of neutralizing political pressures during the restructuring. However, because mandates for budgetary matters lie with the executive and legislature in many countries, the courts’ ability to influence subnational fiscal adjustment is limited. Administrative interventions, by contrast, usually allow a higher level of government to intervene in the entity concerned, temporarily taking direct political responsibility for many aspects of financial management.16

Managing Implicit and Contingent Liabilities

The global financial crisis reaffirmed the importance of managing implicit and contingent liabilities that are off budgets and balance sheets of official financial accounts. Beyond the well-known liabilities that are not captured by official accounting (such as deficit financing through arrears due to a cash accounting framework), two types of subsovereign fiscal risks and two types of contingent liabilities are likely to grow in importance in developing countries.

First, SNGs have undertaken a large share of infrastructure investments in many countries.17 SNGs often create special-purpose vehicles (SPVs) to undertake infrastructure and other public investments. Such vehicles can play an important role in developing infrastructure networks that cut across the boundaries of subnational administrations, since the latter may not be compatible with the technological nature of infrastructure networks. In the United States, revenue bonds of SPVs accounted for about two-thirds of about a US$400 billion annual issuance of subnational bonds during 2005–09.18 In France, sociétés d’économie mixte locales (SEMs)—private-public companies with SNGs owning a majority share—are a main instrument for delivering infrastructure such as waste management and water supply across a large number of small municipalities.19 In Fitch’s ratings of 13 French SNGs in 2008, net debt outstanding by SEMs, including guarantees provided by SNGs to SEMs, was close in amount to net debt outstanding directly by SNGs.20 In China, debt financing through subnational SPVs has been instrumental in unprecedented large-scale urban infrastructure transformation over the last two

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16 In some instances, the higher level of government has restructured the subnational’s debt obligations into longer-term debt instruments. In the case of New York City’s insolvency in 1975, the Municipal Assistance Corporation was set up to issue longer-term bonds of the state to repay maturing short-term obligations of the city, conditioned on the City’s fiscal and financial management reforms (Bailey 1984). The 1997 debt agreements between the Brazilian federal government and the 25 states focused on debt restructuring and fiscal reforms.

17 Together with the private sector, SNGs are the main investors in infrastructure in an increasing number of middle-income countries such as China, India, and Indonesia (Asian Development Bank 2007). This pattern is similar to that in the countries of the European Union, where SNGs contribute two-thirds of gross national capital formation (Dexia 2006).

18 Data for 2005–08 are from the Federal Reserve Board. The 2009 data are from Thomson Reuters. The share has been more or less the same since the 1970s.

19 More than 20,000 municipalities have fewer than 500 inhabitants, and 32,000 municipalities have less than 2,000 inhabitants (Direction Générale des Collectivités Locales 2009).

20 Fitch Ratings (February 28, 2008) and fitchratings.com, compilation of various reports. Reports for 3 cities out of 13 were in 2007.
decades, and the subsovereign debt (SPVs) is reportedly larger than the sovereign debt.\textsuperscript{21} Since the late 1990s, SPVs have become important infrastructure financing vehicles of Indian states and municipalities. SPVs often form partnerships with private financiers and operators. Public-private partnerships (PPPs) experienced a sevenfold increase in developing countries during 2006–08 compared to 1990–92 (Engel 2010).

Notwithstanding the tremendous benefits of SPVs, there are significant fiscal risks. Often SNGs provide explicit or implicit guarantees for market borrowings of SPVs. Countries such as India and Poland have regulations on explicit guarantees.\textsuperscript{22} Challenges arise from implicit guarantees, which influence creditors’ risk assessment. Moreover, there is a lack of standardized accounting, recording, collecting, and disclosing such debt incurred by off-budget financing vehicles in many developing countries.\textsuperscript{23} These tasks are challenging because of arrays of complex arrangements of SPVs. SPVs may have different quasi-fiscal relations with the budgets of their owners—SNGs. Adding to the complexity is wide varieties of legal contractual relationships in PPPs. There is no standard uniformity in these contractual relationships; they vary across sectors and within sectors.

Second, land financing of infrastructure can also carry fiscal risks (Peterson and Kaganova 2010).\textsuperscript{24} SNGs in developed and developing countries have used various instruments (such as land sales, lease auctions, and sale of rights to more intensive land development) to generate revenue from publicly owned land assets. Today, land is often the most important public contribution to public-private joint ventures that build metro (subway) lines, airports, or other large infrastructure projects. Properly managed, the use of land-based revenues for capital finance should reduce overall capital financing risk. Land transactions of this kind complement borrowing by reducing the uncertainty surrounding future debt repayment capacity. Land transactions in the last few years in cities such as Cairo, Cape Town, Istanbul, and Mumbai each has generated revenues much greater than the prior annual capital spending of the city. Chinese SNGs have also used land-related instruments in financing large-scale urban infrastructure investments.\textsuperscript{25}

There are, however, significant fiscal risks related to the land financing instruments. Unlike the regulations on direct borrowing, there is a general lack of regulatory frameworks for managing fiscal risks from land financing in many developing countries. Revenues from the sale of land assets exert a much more volatile trend and could create an incentive to appropriate auction proceeds for financing operating budgets, particularly at a time of budget shortfalls during economic downturns. Land sales often involve less transparency than borrowing. When sales are conducted off-budget, it is easier to divert proceeds into operating (non-capital) budgets. Transactions by different development agencies and public entities may be ad hoc

\textsuperscript{21} Sovereign debt was about 20 percent of GDP in 2009.
\textsuperscript{22} The Fiscal Responsibility and Budget Management Acts of many Indian states set limits and rules on issuing guarantees. The Public Finance Law of Poland (2005) stipulates that guarantees by SNGs be counted within the legal limits for debt services whether or not guarantees are called.
\textsuperscript{23} China has launched reform efforts to collect data on the debt of SPVs (through Urban Development and Investment Corporations).
\textsuperscript{24} The discussion on land financing is drawn from Peterson and Kaganova (2010).
\textsuperscript{25} The city cases are from Peterson (2009). As an example, an auction of 13 hectare of land in Mumbai’s new financial center in 2006 and 2007 by the Mumbai Metropolitan Regional Development Authority (MMRDA) generated US$1.2 billion to primarily finance transport projects. The proceeds are 10 times MMRDA’s total capital spending in fiscal 2005.
without a coherent city- and region-wide medium-term capital investment framework. Furthermore, bank loans for financing infrastructure are often backed by land collateral and expected future land-value appreciation. This can lead to excessive borrowing, and the volatility of land and real estate markets can create risk of nonperforming loans, which, in turn, can create contingent liabilities and macroeconomic risks for national governments.

It is critical to develop ex ante prudential rules, comparable to those governing borrowing, to reduce fiscal risks and contingent liabilities associated with land financing of infrastructure. Key guiding principles would include: asset sale proceeds must be used to finance investment, with exceptions given only for key, one-time institutional reforms; collateral/loan ratios linked to prudential banking regulations; linking land financing with medium-term fiscal framework and capital budgeting; all information on public land inventories, public land valuations, land sales, and land contributions to public-private joint ventures or subsidiaries to be conducted through standardized instruments, be reflected in the budget or its annexes and financial statements; and transparent governance structure for land financing transactions.

In addition to the above risks, pension liabilities for subnational civil servants are a challenge for some developing countries. Pension and health care obligations are a serious long-term fiscal challenge for advanced economies, according to Cecchetti, Mohanty, and Zampolli (2010), whose study focused on central government liabilities. Which level of government is responsible for pension liabilities of subnational civil servants depends on the framework for administrative and fiscal decentralization in each country. In a federal system such as Brazil, India, and the United States, states are responsible for the pensions of their civil servants. Health care costs and unfunded pension liabilities are long-term fiscal problems confronting the states and local governments in the United States. It is also a generic issue for some EU countries (for example, Germany, Italy, and Spain). Comprehensive data on subnational pension liabilities are not available for developing countries. However, available work shows that subnational pension liabilities are a challenge for many SNGs in, among others, Argentina, Brazil, India, and Mexico.  

Finally, structured financial products contributed significantly to the global financial crisis and led to large liabilities of national governments. SNGs are not immune to these products. Developing countries can learn from the lessons of risky structured products used by some SNGs in developed countries such as France, Italy and the United States. As SNGs search for innovative financing tools, instruments such as swaps and other derivative instruments can be tempting. However, they carry significant risks by, for example, swapping long-term higher fixed interest rates into lower variable rates with counterparty risk and threshold indexing to variables such as exchange rates that can be volatile. Public accounting standards have not kept pace in reflecting developments in these new products, and their costs and risks have not been fully evaluated.

Developing Competitive Subnational Credit Markets

26 Information on the United States is from the United States Government Accountability Office (2010) and the Pew Center on the States (2010). Information on selected developing countries is from the World Bank country teams.

27 The Orange County bankruptcy in California in 1994 is the largest filing of Chapter 9 to date, since the Great Depression in the United States. The bankruptcy was caused by derivative instruments in the municipal investment portfolio. Jefferson County in Alabama could become the largest subnational default in U.S. history. To reduce interest rates, the county refinanced its debt using adjustable rate demand notes. Rising interest rates related to the adjustable rate demand notes has led to debt distress.
The global financial crisis has brought home the importance of developing domestic financial markets, including subnational credit markets. A competitive and diversified subnational credit market can help ensure the lowest cost and the sustainable availability of credit. Diversified subnational credit markets can also provide more choices of investment instruments for institutions (such as insurance companies and mutual funds), and individual investors.

There are two major models of subnational credit markets (Peterson 2002). The first model is bank lending, which financed municipal investment in Western Europe throughout most of the 20th century and is still the primary source of local credit financing there (Peterson 2002). Over the last 10 years, SNGs in Europe have been diversifying debt instruments, with bond issuance increasing from less than US$20 billion in 2000 to US$61.8 billion in 2003 to more than US$100 billion in 2009. The second model is the United States, which has relied on its deep and competitive capital market to finance SNG borrowing. Annual issuances of SNG bonds have been about US$400 billion in the last 5 years.28 Individual investors are the largest holders of U.S. subnational bonds, followed by mutual funds, bank trust accounts, banks, insurance companies, and corporations (Maco 2001).

According to Peterson (2002), there is a policy argument for having municipalities borrow at the true market cost of capital. There are also counter-arguments in favor of subsidizing loans under some conditions. This issue has been the subject of continuing policy debate. However, it is generally agreed that significant movement toward market pricing of subnational debt would be economically efficient, at least for those SNGs that are creditworthy. This means opening access on equal terms to bank lending and bond issuance, prohibiting monopolies of “municipal banks.” As articulated by South African policymakers, “Active capital markets, with a variety of buyers and sellers, and a variety of financial products, can offer more efficiency than direct lending. First, competition for municipal debt instruments tends to keep borrowing costs down and create structural options for every need. Second, an active market implies liquidity for an investor who may wish to sell. Liquidity reduces risk, increases the pool of potential investors, and thus improves efficiency” (South Africa National Treasury 2001:192).29

Though bank loans still dominate SNG borrowing in many developing countries, various countries have been moving toward more diversified instruments including bonds, with China leading in this direction. Total SNG bond issuance in developing countries reached US$45.1 billion from 2000–07, and US$102.8 billion from 2008–10Q1, with China being the largest and dominant issuer followed by Russia.30

Developing competitive subnational capital markets would require securities regulations that in many ways are similar to those for sovereign and corporate bonds. The market

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28 The SNG bond issuance data for Europe are from DCM Analytics. The U.S. data before 2009 are from the Federal Reserve Board, and the 2009 data are from Thomson Reuters.

29 In South Africa, private lending to municipalities from 1997 to 2000 was stagnant, and the expansion in municipal debt was driven by growth in public sector lending, particularly by the Development Bank of South Africa. The government was concerned about the lack of private financing and stressed the importance of private investments and a competitive capital market (South Africa National Treasury 2001:192–3).

30 Data source: DCM Analytics.
infrastructure such as regulations on credit rating agencies, broker-dealers, underwriters, and auditors, is similar across sovereign, subsovereign, and corporate bonds. However, securities laws cannot replace rules for prudent fiscal management of SNGs and for corporate governance of SPVs. What security laws contribute is enforcing disclosure requirements and anti-fraud practices. Over the long term, the development of subnational credit markets would also benefit from self-regulation and a “buyer beware” approach. Many U.S. regulations were developed by market players themselves; for example, the Government Finance Officers Association in the United States developed many municipal bond disclosure rules and practices that were adopted in the industry.

Finally, competition in and access to financial markets can be a challenge for smaller SNGs or those in less-developed regions. For the former, developing models of pooled finance can reduce financing cost, as shown by experiences in Italy and the United States. For the latter, fiscal transfers will continue to play an important role in the basic provision of services.

**Conclusions**

The financial crisis has had a significant impact on many SNGs, as a result of slowing economic growth, rising cost of borrowing, and deteriorating primary balances. Beyond the crisis, structural trends of decentralization and urbanization are likely to continue with force, requiring massive infrastructure investments. Pressures on subnational finance are likely to continue—from potentially higher cost of capital, the fragility of global recovery, refinancing risks, and sovereign risks.

A range of middle-income countries, and low-income countries in transition to market access, are contemplating expanding subnational borrowing and debt financing. Before doing so, the first priority should be to establish clear fiscal rules for SNGs, and to account for and manage fiscal risks coming from off-budget financing vehicles and other hidden liabilities. It would take time to develop effective ex post insolvency mechanisms, which help anchor the expectation of borrowers and creditors and enforce hard budget constraints.

Subnational credit risks are intertwined with broader macroeconomic and institutional reforms. Macroeconomic stability and sovereign strength cap the credit ratings of SNGs and influence the availability and cost of funds for them. Moreover, the intergovernmental fiscal system underpins the fundamentals of the subnational fiscal structure. Without increased fiscal autonomy and greater own-source revenues, SNGs will rarely be in a position to borrow sustainably on their own. Effective management of subnational default risks goes in tandem with broader development of subnational credit markets for efficient intermediation of savings and investments.
References


