THE WORLD BANK

POVERTY REDUCTION AND ECONOMIC MANAGEMENT NETWORK (PREM)

Economic Premise

MAY 2010 • Number 13

54507

Subnational Debt Finance and the Global Financial Crisis

Otaviano Canuto and Lili Liu

This note focuses on the impact of the global financial crisis on subnational debt financing.[1] We approach 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, equally important, what are the long-term structural challenges facing SNGs in sustainable financing of infrastructure and social services?

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 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, is included). The rising share of subnational finance in consolidated public finance is not limited to federal countries. In France, SNGs now 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.[2]

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 power, 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 who therefore should also bear the cost. Subnational borrowing finances infrastructure more equitably across multigenerational users of infrastructure services because the maturity of debt 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 of 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 other countries are allowing selected subnational entities to pilot-test transaction and capacity-building activities to the same effect (for example, Peru).

Impact of the Financial Crisis on Fiscal Balance

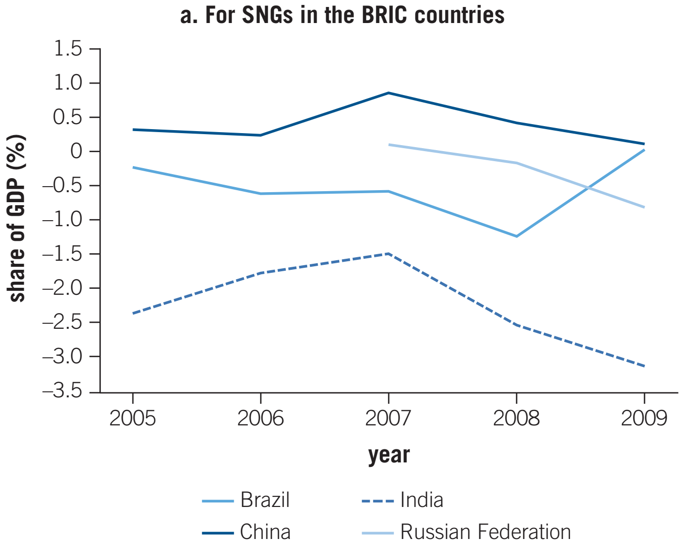
The global financial crisis has had a profound impact on subnational finance across countries. Slower or negative national and regional economic growth has generally reduced the SNGs' own revenues; the exact impact is influenced by the revenue structure of the SNG. Subnational government entities with 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, value-added, and income taxes also have experienced reduced revenue buoyancy. 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, countries' fiscal needs are rising but fiscal space is narrowing, resulting in deteriorating fiscal positions across regions and tiers of the government.

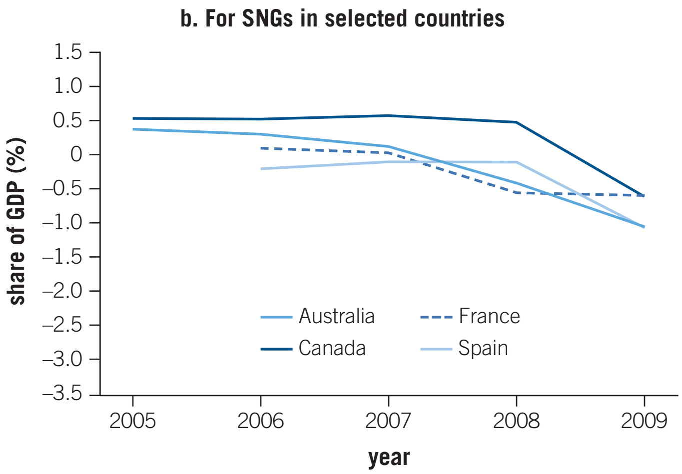
Figure 1 highlights trends of fiscal balance as a share of GDP from 2005 to 2009 in the BRIC countries and in four advanced economies. The rising fiscal deficit—particularly from 2008 to 2009—happened across all these countries except Brazil, where the improvement in 2009 was largely to the result of a fall in interest payments as a share of GDP (from 1.85 percent in 2008 to 0.47 percent the following year). This decline is linked to deflation in the General Price Index (that is, the IGP), which indexes state debts with the federal government.

All major rating agencies viewed the impact of the economic downturn on the credit qualities of SNGs as significant because of declines in the tax base, expenditure pressures or rigidities, and increasing and more expensive debt (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 a downward direction. For example, 31 percent of the actions were downward for Western Europe and Commonwealth of Independent States/Central and Eastern Europe countries, and 13 percent were downward in Asia Pacific. There was a general shift toward negative outlooks for 2009 in the Fitch ratings of European SNGs, and the downward pressure is expected to continue into 2010. Similarly, S&P's negative rating actions for European SNGs largely exceeded positive ones in 2009, and the trend is likely to continue in 2010.

Figure 1. Fiscal Balance as a Share of GDP, 2005–09



Sources: Government Web sites; World Bank country teams; Center for Fiscal Policy (Russia).
Note: Fiscal data are aggregated over all SNGs (for example, states, municipalities) in each country, except India (where data are for states). Revenues may include one-off receipts, such as privatization proceeds.



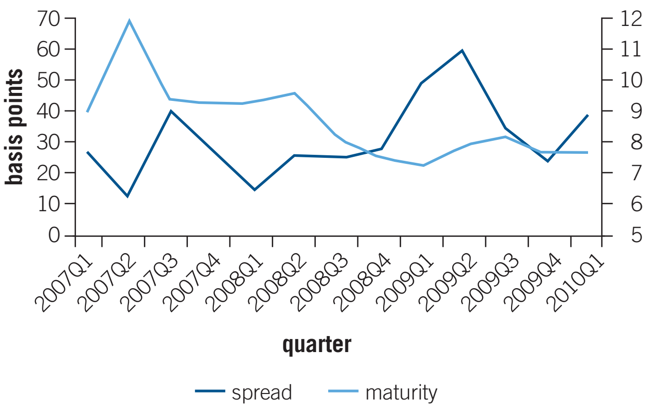
Sources: Government Web sites; Fitch Ratings (2010).
Note: Fiscal data are aggregated over all SNGs (for example, states, municipalities) in each country. Revenues may include one-off receipts, such as privatization proceeds.

Impact of the Financial Crisis on the Cost of Capital

Liquidity squeeze and lower risk appetite generally led to higher financial costs at the height of the crisis, as measured by the cost of subsovereign bond issuances[3]; however, the cost of financing has declined since mid-2009. As illustrated in figure 2a, yield spread for subnational bond issuance steadily increased from 2008Q1 to 2009Q2, whereas maturity exhibited a generally declining trend from 2007Q3 to 2009Q1.[4] Further decomposing yield spread, the rising spread was driven mainly by the rising spread of bonds with maturity of less than seven years; and the impact on maturity of seven years or longer has not been as significant (figure 2b). However, the share of subnational bonds with maturity of seven years or more declined from 60 percent in 2007 to 41 percent in 2009.

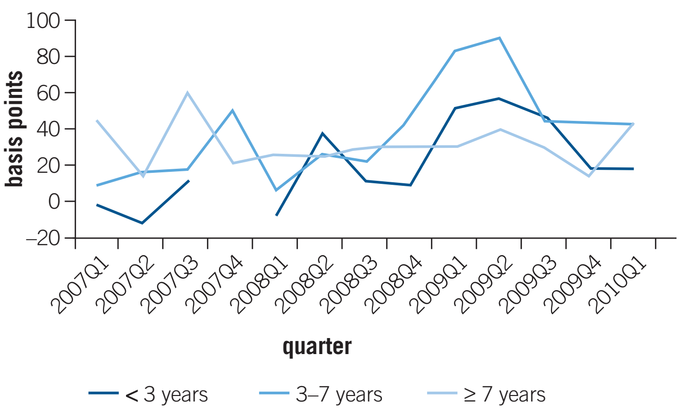
Figure 2. Quarterly Yield Spread and Maturity for Subnational Bonds Issuance, 2007–10 (Excluding the United States)

a. Yield spread and maturity



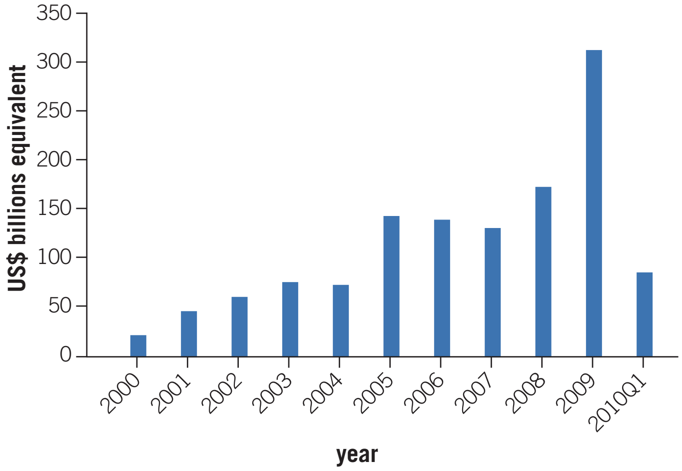
Source: DCM Analytics.
Note: Thirty percent of bond issuances have yield spreads recorded.

b. Yield spread at different maturities



Source: DCM Analytics.
Note: Maturity of three to seven years means those issuances with maturity greater than or equal to three years but less than seven years. Thirty percent of bond issuances have yield spread recorded.

Figure 3. Global Subnational Bond Issuance, 2000–10Q1 (Excluding the United States)



Source: DCM Analytics.

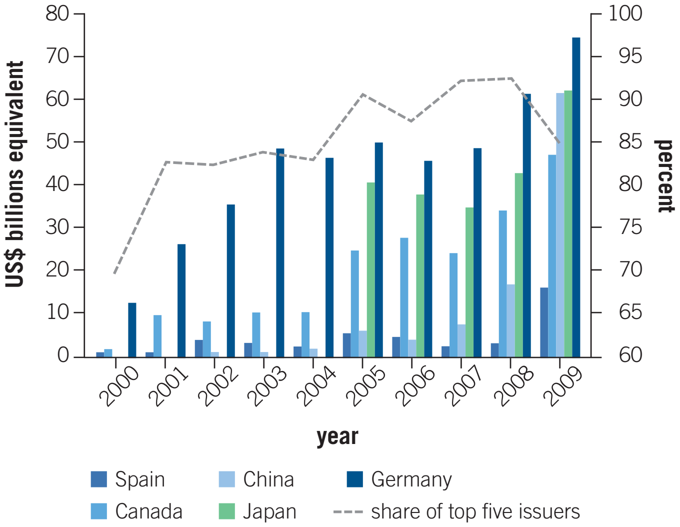
Bank loans have long dominated SNG debt financing in many countries (unlike the United States, where SNG debt financing has relied on the capital market). However, as shown by figure 3, SNG bond issuance outside the United States has increased since the onset of the global crisis. Various countries have been exploring capital markets for mobilizing financing during the crisis period. The United States remains the largest SNG bond market, with annual issuance of about $400 billion. The following top five countries are Germany, Japan, Canada, China, and Spain; together, they account for about 85 percent of about $308 billion global SNG bond issuance (excluding the United States) in 2009 (figure 4).

There are significant variations in the access to and cost of SNG debt financing across and within countries. With a deep and competitive capital market in the United States, the cost of borrowing is directly related to the creditworthiness of SNGs. As shown by figure 5, the cost of borrowing for 10-year U.S. municipal general obligation bonds is the lowest for AAA-rated SNG borrowers; each notch down in ratings progressively increases the cost of borrowing, with BBB-rated SNGs bearing higher costs than better-rated ones. With imperfect financial markets in developing countries and capital controls in some countries, the cost structure may not be related to creditworthiness, because of factors such as subsidized policy lending, monopoly supply by public banks, and relaxed credit conditions of stimulus packages.

Countercyclical Macroeconomic Policies and SNGs

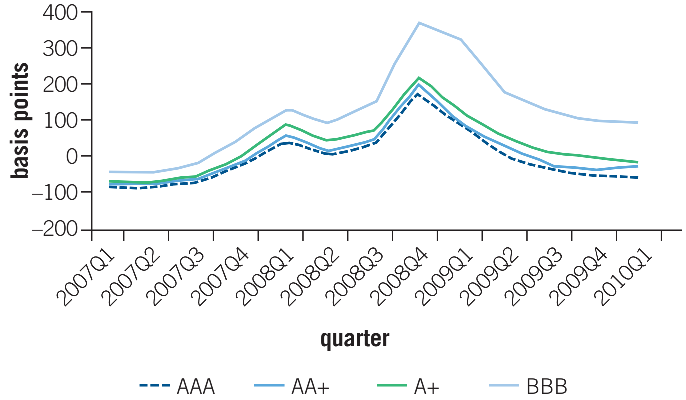
To counter the global financial crisis, countries have launched countercyclical macroeconomic policies. The ability of SNGs to cushion the impact of the crisis depends on a num-

Figure 4. Top Five Countries in Issuing Subnational Bonds, 2000–09 (Excluding the United States)



Source: DCM Analytics.

Figure 5. Yield Spread of 10-Year U.S. Municipal General Obligation Bonds, 2007–10Q1

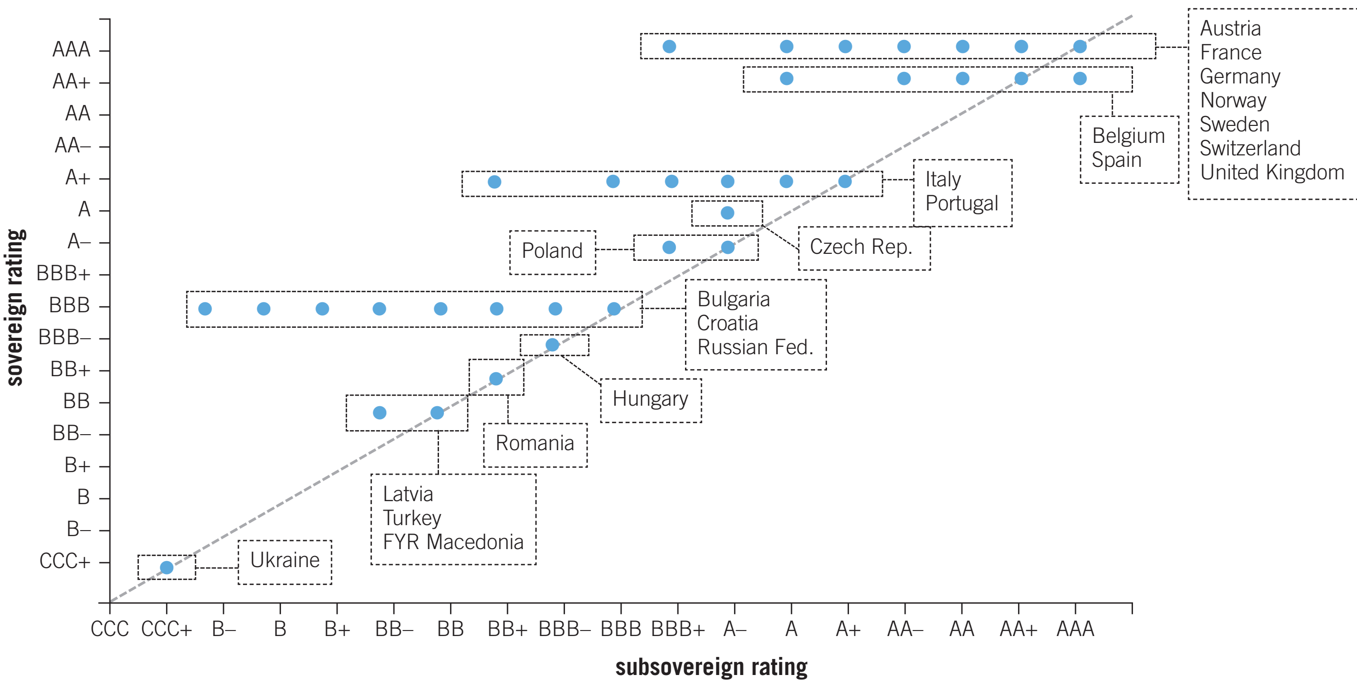


Source: Bloomberg.

ber of factors, with sovereign macroeconomic fundamentals being a dominant factor.

Major international rating agencies (Fitch, Moody's, and S&P) cap subsovereign credit ratings within the sovereign credit ratings; and rarely do subsovereign ratings exceed that of the sovereign (figure 6). A country's macroeconomic management and countrywide risks affect not only the broader economic, fiscal, and financial conditions under which an SNG operates; 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

Figure 6. Correlation between Sovereign and Subsovereign Ratings of European Countries



Source: Standard & Poor's, http://www.standardandpoors.com.
Note: The sample size is 141 subsovereign governments from 22 European countries. One dot could 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.

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 latter nevertheless could impose nationwide capital or exchange controls to restrict capital outflows and thereby disallow the SNG to repay its foreign debts. In short, the sovereign is unlikely to default before any SNG does so.

Macroeconomic fundamentals affect subsovereign finance mainly through key variables that impact subnational fiscal sustainability. They affect real interest rates (adjusting for inflation and currency movement) and thus the base cost of borrowing; at the same time, a subnational's own fiscal position and economic growth affect the spread over the base cost structure. Even when subnationals cannot borrow directly from foreign markets, macroeconomic shocks and currency volatility affect the cost of borrowing by SNGs through real interest rate channels. A central government with a large fiscal space can afford increased fiscal transfers to SNGs to reduce borrowing needs or to continue capital spending during recession.

The ability of SNGs to cushion the impact of crisis is framed by the larger national-level response, and fiscally strong SNGs such as coastal regions in China also have responded forcefully. Box 1 summarizes selected country highlights.

Regulatory Frameworks for Subnational Debt Financing

Following the 1990s when subnational fiscal stress or debt crises contributed to macroeconomic deterioration in major developing countries (such as Argentina, Brazil, India, and Russia), SNG finance has been substantially strengthened across various developing countries. SNGs there had stronger fiscal and liquidity positions when the current global crisis broke out, thanks to extensive fiscal consolidation taking

Box 1. Fiscal Stimulus Relating to SNGs: Selected Country Highlights

Brazil: The three-year Programs of Fiscal Adjustments between the National Treasury and the 27 states adjusted the primary balances and indebtedness targets and broadened the fiscal space for new borrowing. Through its development bank, the federal government created a credit line for SNGs that had suffered loss of federal transfers. Given that some states were not in compliance with the requirements of fiscal responsibility legislation, this operation is considered to be exceptional and allows all states to contract the credit operation.

China: The country launched a large stimulus package centered on infrastructure spending, combined with increases in transfers, consumer subsidies, and tax cuts. A significant part of the package supports SNG infrastructure and social spending, with SNG cofinancing partly supported by provincial bonds totaling Y 200 billion ($30 billion). The central government issued the bonds on behalf of SNGs as a transitional step (debt will be booked on provincial accounts), taking advantage of the sovereign bond experience and cost advantage. Provinces and municipalities with fiscal space also have introduced their own fiscal packages.

France: The central government reduced the delay in refunding value-added tax to SNGs, enabling them to maintain capital expenditures in 2009 above the 2004–07 average. The expected value-added tax refund payments in 2009 totaled more than €4 billion, equivalent to 8 percent of SNG capital expenditures in 2009. Overall net borrowing by French SNGs increased by €5.1 billion in 2009, while total outstanding debt as a share of GDP increased by 4 percent over 2008; but debt accounts for only 4.2 years of overall SNG current balance.

India: The central government allowed the states to raise additional market borrowings, thus increasing the limit of gross fiscal deficit to 3.5 percent of gross state domestic product in fiscal 2008/09, and to 4.0 percent in fiscal 2009/10. The consolidated expenditure of states rose by 25.0 percent during fiscal 2008/09 (revised estimate), compared with 14.8 percent during fiscal 2007/08 (accounts). A few states have announced their own dedicated fiscal stimulus packages, and some states have announced certain tax exemptions/reductions.

Russian Federation: The federal government increased the amount of financial aid to SNGs by 45 percent from the amount initially budgeted for 2009, largely offsetting the revenue fall for SNGs. Therefore, budget revenues of most SNGs are likely to be close to 2008 levels. Less-developed regions, which are more dependent on transfers, appear to be less affected by the crisis. From the budget, the federal government also provided SNGs with low-cost loans having three-year maturity.

United States: The American Recovery and Reinvestment Act of 2009 provided nearly $135 billion in emergency funding, helping states avoid draconian cuts in services. With $87 billion in additional Medicaid funding via increased federal medical assistance percentage rates and $48 billion as part of the State Fiscal Stabilization Fund, states were able to maintain critical funding for social services. Through fiscal 2010, states will have spent $150 billion in recovery act funds. States have expenditure flexibility, revenue power, and balanced-budget requirements.

Sources: Fitch Ratings (2009); government Web sites; NGA/NASBO (2009); World Bank country teams.

place prior to the crisis in countries such as Brazil, India, Mexico, and Russia. In Brazil, SNGs' net debt as a percent of GDP decreased from 18 percent in 2003 to 14 percent in 2007. In India, the fiscal deficit of states declined from 4.0 percent of GDP on average in 2000–05 to 1.5 percent in 2007–08; and states achieved positive operating balances. In countries such as Peru and Poland, the governments have emphasized the importance of fiscal sustainability at the start of decentralization.

A core part of the regulatory frameworks is placing limits on key fiscal variables, such as fiscal deficit, primary deficit, debt service ratios, and guarantees. Most frameworks also require balancing the operating budget. The fiscal and debt limitations imposed on SNGs, either by their national governments or by the SNGs themselves, are not limited to developing countries (box 2). Most states in the United States have constitutional provisions on debt limitations. Similarly, France has a strong framework regulating SNG fiscal accounts. Many states/provinces in Australia and Canada have their own fiscal responsibility legislation.

Because the financial market and rating agencies evaluate combined public debt (national government and SNGs), debt financing limits for SNGs can be subordinate to the debt space of national governments. If the national government runs a high fiscal deficit and accumulates a large debt stock, this could further limit the ability of a subnational government to raise funds—even if it operates well below its own debt limit.

Box 2. Regulating Subnational Debt: Country Examples

- ***Brazil:*** Fiscal Responsibility Law (2000)
- ***Colombia:*** Law 358 (1997); Law 617 (2000); Fiscal Transparency and Responsibility Law (2003)
- ***France:*** various borrowing regulations and balanced budget rules
- ***India:*** states' Fiscal Responsibility and Budget Management Acts, following the 12th Finance Commission
- ***Mexico:*** new subnational borrowing framework in 2000
- ***Peru:*** Fiscal Responsibility and Transparency Law (amended 2003); General Debt Law (2005)
- ***Poland:*** Public Finance Law (1998, 2005)
- ***South Africa:*** Municipal Finance Management Act (2003)
- ***Turkey:*** various regulations since the early 2000s
- ***United States:*** state regulations (for example, limits on deficit financing)

Sources: Liu and Waibel (2009); research by the authors.

Long-Term Structural Issues

Looking beyond the crisis and stabilization, there are long-term structural issues with respect to SNG debt finance in 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 3–4 percent of GDP on infrastructure, well short of what is considered to be required (7–8 percent). The scale and the sustainability of infrastructure financing will critically depend on SNG fiscal sustainability.

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. It is all the more important that countries continue to pursue structural reforms to sustain economic growth and develop efficient financial markets.

Consolidating public finance through higher expenditure efficiency and structural reforms in the taxation systems for both national and subnational governments will become important to counter the negative impact of stimulus withdrawals. Intergovernmental fiscal systems also will need to grant subnationals a certain degree of fiscal autonomy, including making the budget process less rigid and allowing subnationals taxation power at the margin; this helps make SNGs more resilient and flexible in responding to crises.

Whereas significant progress has been made in establishing ex ante fiscal rules for subnationals in various countries to reduce default risks, newly decentralizing countries will need to develop regulatory frameworks for subnational debt instruments before opening up SNG access to financial markets. More also needs to be done in developing a robust ex post insolvency system for debt restructuring in the case of subnational defaults. A sound insolvency system reduces moral hazard of free-riding on common resources by individual SNGs and sends signals to financial markets about pricing risks and returns.

Many SNGs have created special-purpose vehicles to undertake infrastructure investments, often in partnership with private financiers and operators. Such vehicles can play an important role in developing infrastructure networks that cut across the boundaries of subnational administrations. But the special-purpose vehicle operations must be within a transparent governance and financial structure to ensure that they do not become a means of circumventing borrowing limits, and that they do not become contingent liabilities of their creators.

Accessing 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 such countries as Italy and the United States. For the latter, fiscal transfers will continue to play an important role in basic provision of services.

Another significant fiscal risk comes from land financing of infrastructure, with land and other hard assets serving as collateral for debt instruments such as bank loans. The upswing in the value of hard assets in economic boom times can lead to excessive borrowing; and the volatility of land and real estate markets creates risks for nonperforming loans, which can become a liability of the national government and create macroeconomic risks.

The global financial crisis reinforces the importance of managing refinancing and liquidity risks. SNGs, like their national governments, need to strengthen capacity to manage structural risks of debt profiles with respect to maturity mix, real interest rates, currency mix (if they are allowed to borrow in foreign markets), and liquidity. Managing such risks becomes more important given the uncertainty of sovereign risks and sustained global recovery. Developing countries also would benefit by learning from the financial disasters that have resulted from using exotic speculative structured financial products. In recent years, SNGs in some developed countries have used such products with disastrous consequences.

The global financial crisis has also 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. This means opening access on equal terms to bank lending and bond issuance and prohibiting monopolies of "municipal or development banks." Securities laws and market infrastructure are part of developing subnational credit markets.

Notes

1. 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.

2. Data are from government Web sites and World Bank country teams.

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

4. DCM Analytics is the data source for all figures in this section. Data coverage for bond issuances with maturity less than three years is incomplete. Data are bonds issued by SNGs, and the data for China and India also include bond issuances by entities largely or wholly owned by an SNG (for example, a utility company). References to U.S. subnational bond issuance in this section include bond issuance by special-purpose vehicles created by an SNG.

About the Authors

Otaviano Canuto *is the vice president and head of the Poverty Reduction and Economic Management (PREM) Network; and* Lili Liu *is a lead economist with the Economic Policy and Debt Department, PREM Network, World Bank, Washington, DC.*

Bibliography

Ianchovichina, Elena, Lili Liu, and Mohan Nagarajan. 2007. "Subnational Fiscal Sustainability Analysis: What Can We Learn from Tamil Nadu?" *Economic and Political Weekly* 42 (52): 111–19.

Fitch Ratings. 2009. "European Local and Regional Government Outlook 2010." New York.

———. 2010. "Spanish Autonomous Communities' 2010 Budget: Deficit to Grow Further.". Fitch Ratings, New York.

Liu, Lili. 2008. "Creating a Regulatory Framework for Managing Subnational Borrowing." In *Public Finance in China: Reform and Growth for a Harmonious Society*, ed. Jiwei Lou and Shuilin Wang, 171–90. Washington, DC: World Bank.

Liu, Lili, and Kim Song Tan. 2009. "Subnational Credit Ratings: A Comparative Review." Policy Research Working Paper 5013. World Bank, Washington, DC.

Liu, Lili, and Michael Waibel. 2008. "Subnational Borrowing, Insolvency, and Regulation." In *Macro Federalism and Local Finance*, ed. Anwar Shah, 215–42. Washington, DC: World Bank.

———. 2009. "Subnational Insolvency and Governance: Cross-Country Experiences and Lessons." In *Does Decentralization Enhance Service Delivery and Poverty Reduction?* ed. Ehtisham Ahmad and Giorgio Brosio, 333–76. Cheltenham, UK: Edward Elgar.

Moody's Investor Service. 2010. "Sub-Sovereign Outlook 2010: Challenges Persist and Downward Ratings Actions Expected." New York.

NGA/NASBO (National Governors Association and National Association of State Budget Officers). 2009. *The Fiscal Survey of States Fall 2009*. Washington, DC. http://www.nasbo.org/Publications/FiscalSurvey/tabid/65/Default.aspx.

S&P (Standard & Poor's). 2010. "The Outlook for Europe's Local and Regional Governments Is Broadly Stable in 2010, But LRGs in Spain and Russia Face Pressures." New York.

The *Economic Premise* note series is intended to summarize good practices and key policy findings on topics related to economic policy. It is produced by the Poverty Reduction and Economic Management (PREM) Network Vice-Presidency of the World Bank. The views expressed here are those of the authors and do not necessarily reflect those of the World Bank. The notes are available at www.worldbank.org/economicpremise.