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Local Government Finance,
Private Resources, and Local
Credit Markets in Asia

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FOREWORD

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ABSTRACT

The ongoing political decentralization in Asia, with central governments devolving to local governments the responsibilities of delivering key development projects and public services, calls for sound local government finance. Local government finance in the region exhibits several problems: deterioration of the fiscal health in many countries, mismatch between the delegated responsibilities and revenue-generating authority, resultant continued heavy reliance on central government transfers, and lack of political will to develop an external financing strategy to tap long-term private resources. In order for local governments to mobilize private savings for long-term infrastructure projects, it is imperative to develop municipal credit markets. Two models of municipal credit markets can be considered: the bank model popular in Western Europe and the bond model widely used in North America. The bond model has theoretically more advantages than the other. However, Asian local governments may start with either model considering the countries' social-cultural-political milieu and keep a proper combination of both models serving different segments of local credit markets.

I. INTRODUCTION

Sound local government finance is becoming more important in Asia largely for two reasons. First, in recent years a number of developing countries have been undergoing political decentralization, with central governments devolving to local governments the responsibilities of delivering local public services and developing key infrastructure that requires large financial resources.¹ This trend demands that local governments strengthen their financial capacity. Decentralization is based on the recognition that participation of key local stakeholders, including local governments and communities, is critical for economic growth and poverty reduction.² By enabling local governments to efficiently allocate resources for public service delivery, decentralization reforms aim to reduce the large fiscal deficits of central and local governments.³

Second, the rapid urbanization in most developing countries reinforces the need to improve existing, often poorly maintained, infrastructure and meet new demand for housing, education, water supply, sanitation, sewerage treatment and disposal, solid waste management, and public transport. This requires massive investments, much of which should be financed, cofinanced, or guaranteed by local and/or municipal governments. An Asian Development Bank (ADB) report (Brockman and Williams 1996) expects Asia's urban population to more than double to almost 2.5 billion by 2020, making up more than half the total Asian population.

In the past, local governments in Asia have used three methods to meet this demand for urban infrastructure and services. First, they have financed a portion of these investments and services with current revenues consisting of local taxes, user charges and intergovernmental transfers. Second, they have provided for another portion—investments and services—by harnessing private sector resources through privatizations and concessions. Decentralization reforms have given local governments a greater role in fostering partnerships between operators, financiers, and constituents. Third, they have utilized borrowings to finance any demand in infrastructure investment and services

¹ Decentralization reforms were based on laws passed in the last decade. For example, the Republic of the Philippines's Local Government Code in 1991; India's Decentralization Acts in 1992; Thailand's law giving subdistrict councils juridical status in 1994; Republic of Korea's (henceforth Korea) Local Autonomy Act in 1995; and Indonesia's laws on local government and central-local financial fund in 1999.

² Decentralization reforms were premised on the principle that the responsibility of delivering a service within an area should be assigned to the government with jurisdiction over it. Local governments, being closer to their constituents, would be more sensitive and accountable to their needs and thus efficiently allocate the necessary resources to deliver necessary services.

³ Recognition is also growing of the need for close partnerships between local governments and other stakeholders—the private sector, civil society, and international development agencies—in promoting sustainable development under a decentralized regime.

not supplied by the two previous methods. These borrowings have come in the form of loans from commercial banks or specialized financial intermediaries that usually carry a guarantee from the central government. Even as they strive to improve local revenue collections and private sector participation, local governments have realized that the pool of sovereign-guaranteed loans will not be sufficient to bridge the financing gap particularly for urban infrastructure investments. So they are seriously looking at the option of tapping into long-term commercial funds through local credit markets.

Developing the capacity of local governments to tap these financing sources for infrastructure investment and delivery of basic services— within a general framework covering local government finance, private resources, and local credit markets—contributes to faster economic growth and poverty reduction in two ways that are mutually reinforcing. First, the efforts to strengthen local government finance, attract private resources through private public partnerships, and develop local credit markets will include building at the local level the institutions that form the basis of a market economy such as property rights and enforcement of contracts and codes of conduct. These efforts will need to be complemented by reforms that promote good governance at the local levels. This will ensure that local government will promote investments and interventions that lead to economic growth that are pro-poor, inclusive, and respectful of the dignity of each individual in the local community. Second, local governments with improved access to these financing sources will be better poised to make the infrastructure investments and deliver basic services. Particularly important are the services that result in good health and education, which are the main income-earning assets in today's knowledge-based economy. This ensures that these individuals will be in a better position to share in the benefits of globalization.⁴

Asian governments have made enormous efforts to strengthen local government finance and diversify financing methods by reforming taxation and expenditure systems, reshaping intergovernmental transfers, privatizing key projects, accessing long-term credit markets, and developing municipal credit markets. This paper deals with the efforts made in 10 ADB developing member countries (DMCs) to improve local government finance and recommends some policies to reinforce these efforts.⁵

II. STATE OF LOCAL GOVERNMENT FINANCE IN ASIA AND MAJOR ISSUES

Local government resources consist mainly of tax and nontax revenues, grants-in-aid, loans from central governments, and own-market borrowings. Tax revenues include those from taxes on agricultural, property, stamp duty and registration, sales, roads, motor vehicles, and others.

⁴ This discussion draws from Duncan and Pollard (2002) who present a framework for evaluating a country poverty reduction strategy.

⁵ In 2002 ADB initiated a study on local government finance and bond market financing in 10 DMCs—People's Republic of China; India; Indonesia; Korea; Malaysia; Pakistan; Philippines; Sri Lanka; Taipei, China; and Thailand—and held an international conference on 19-21 November 2002 to discuss country reports and special research papers. Unless otherwise indicated, the observations on and figures of these DMCs are taken from country reports by Bandara (2002), Firdausy (2002), Kang (2002), Kardar (2002), Kim (2002), Oriol (2002), Pradhan (2002), Setapa (2002), Tsui (2002) and Varanyuwatana (2002).

Nontax revenues include interest receipts, cost recovery charges for various services provided by the local government, and profits and dividends from state-owned enterprises. Central governments also make transfers to local governments by way of grants and loans for general and specific purposes. The financial health of local governments has deteriorated in several countries, including India, Pakistan, Philippines, and Sri Lanka. A survey of the local government finance and key issues in Asian countries is presented below.

A. India

India faces fiscal imbalances in the form of large budgetary deficits, rising debt service burden, very slow growth in nontax revenues, rising share of nondevelopment expenditures, and increasing financial losses of state-owned enterprises. Gross fiscal deficit of state governments has remained high at 3-5 percent of gross domestic product (GDP) since the 1990s, although with considerable variations among them. Growing deficits over the years have significantly increased debt and debt service. Total liabilities of state governments were 19.4 percent of GDP in 1990-1991 and 23.9 percent in 2001-2002. Interest payments account for about a quarter of the revenue receipts of all states, and the percentage continues to increase, depriving them of resources that could have been spent for other purposes, such as development projects.

States' deficits are financed largely by (i) loans from the central government; (ii) issuance of bonds through the Reserve Bank of India; and (iii) loans from small-savings schemes and other financial institutions, including insurance companies and provident funds. As seen in Table 1, the sum of (i) and (iii) finances 83-89 percent of the deficits, while bond issuance finances the rest. An important development in recent years was the change in the degree of importance between (i) and (iii). In the early 1990s central government loans had a higher share than borrowings from financial institutions. This was reversed during the last few years due to deterioration in the financial state of the central government.

Besides direct borrowing, state governments also provide guarantees for the borrowings of other subnational entities such as state housing boards, urban development authorities, municipalities, electric boards, and state road transport corporations. Outstanding guarantees extended by the state governments amounted to Rs1.687 trillion at the end of March 2001, or 8.1 percent of GDP (Table 2). Five large states (Gujarat, Maharashtra, Karnataka, Andhra Pradesh, and Tamil Nadu) account for over 50 percent of total state guarantees. Although they have financed state investments, guaranteed borrowings have also added to state governments' fiscal risks.

Decentralization has brought significant financial pressure on state governments due to increased expenditures for infrastructure, social sectors, and operation and maintenance of facilities. State finances have deteriorated in recent years due to imbalances between large expenditure requirements for development and nondevelopment items and poor revenue collections. Recognizing the enormous need to engage the participation of the private sector and financial institutions in social and development infrastructures, Gujarat and Karnataka have established specialized funds for infrastructure development.

TABLE 1: FINANCING OF STATE GOVERNMENTS' GROSS FISCAL DEFICITS (PERCENT)

	1990-1999*	1999-2000	2000-2001	2001-2002
Loans from the Central Government	48.3	16.3	35.4	36.0
Market borrowing, net	13.9	50.1	33.8	13.3
Others**	53.0	35.8	11.3	52.9

*Average

** This comprises loans drawn from small savings schemes and other financial institutions including insurance companies and provident funds.

Source: Pradhan (2002).

**TABLE 2: OUTSTANDING GUARANTEES BY GOVERNMENTS IN INDIA
 (PERCENTAGE SHARE OF GDP)**

	CENTRAL GOVERNMENT	STATE GOVERNMENTS	TOTAL
1993	7.8	5.7	13.5
1994	7.3	5.7	13.0
1995	6.2	4.8	11.0
1996	5.5	4.4	9.9
1997	5.1	4.6	9.7
1998	4.9	4.8	9.7
1999	4.3	5.6	9.9
2000	4.4	6.8	11.2
2001	4.2	8.1	12.3

Source: Pradhan (2002).

B. Indonesia

Indonesia's ambitious decentralization program started in 1998,⁶ when a special session of the People's Consultative Assembly decreed the implementation of regional autonomy, which led to the promulgation of two laws in May 1999: Law 22 on Local Government Autonomy and Law

⁶ Indonesia's modern administrative and fiscal decentralization program dates back to Law 5 of 1974, which provided the basis for greater involvement of decentralized subnational governments in the provision of public services. However, little progress has been made over the last 25 years to implement the general principles outlined in the legislation (Lewis 2003).

25 on Central-Local Balance Financial Fund.⁷ A large number of regulations and presidential and ministerial decrees have been issued to implement these laws. Starting FY2001, local governments have assumed new expenditure responsibilities.

The two laws highlight 11 areas of local government responsibility: public works, health, education and culture, agriculture, communications, industry and trade, capital investment, environment, land, cooperatives, and labor. Thus, regional expenditure responsibilities have become greater. In the fiscal year (FY) 2001, local government expenditures accounted for about one quarter of total public expenditures. A major concern is that local governments have not been awarded new authority over major tax bases but retain the right to levy essentially the same taxes and charges as before decentralization. Tax systems remain highly centralized, and subnational government share of total revenue is estimated at only about 4 percent (Lewis 2003).

Data for FY2001 show that central government transfers accounted for as much as 89 percent of total local government revenues (Table 3). Local governments may not have been given sufficient access to resources to meet expenditure requirements. Table 3 details the relative importance of the various transfers in FY2001. The general purpose fund is the single most important source of revenue for regional governments, funding nearly two thirds of subnational government budgets. Shared revenue is the next important, taking up 22.4 percent in 2001. It is composed of revenues from natural resources (13.0 percent of total regional revenue), property-related taxes (7.0 percent), and personal income tax (2.4 percent). However, the relative significance of each item varies across regional governments. Revenues are distributed highly unevenly among regions. Over 50 percent of personal income tax share is allocated to Jakarta alone. About 75 percent of total natural resources

TABLE 3: ESTIMATED REGIONAL GOVERNMENT REVENUES IN INDONESIA, FY2001
(IN BILLIONS OF Rp)

	PROVINCES	PERCENT	KAB/KOTA	PERCENT	TOTAL	PERCENT
Own-source revenues	6,400	34.5	4,100	5.6	10,500	11.4
Total Transfers	12,166	65.5	69,772	94.4	81,938	88.6
DAU*	(6,238)	(33.6)	(54,729)	(73.5)	(60,517)	(65.5)
DAK**	N.A.	N.A.	(701)	(0.9)	(701)	(0.8)
Revenue Sharing***	(5,928)	(31.9)	(14,792)	(20.0)	(20,720)	(22.4)
Total Revenues	18,566	100.0	73,872	100.0	92,438	100.0

*Dana Alokasi Umum (general purpose fund).

** Dana Alokasi Khusus (special purpose fund).

*** This covers natural resource revenues, property-related taxes, and personal income tax.

Source: Lewis (2003).

⁷ Law 22 defines the functions that the central government will devolve to local governments, and stipulates that these functions will be accompanied by revenue-generating authority for local governments. Law 25 describes the system of intergovernmental transfers.

revenue shared is distributed to three provinces (Aceh, Riau, and Kalimantan Timur). The revenue inequality due to this is mitigated by Indonesia's main equalization tool, the general purpose fund.

Own-source revenues are the least important, accounting for only 11.4 percent of total revenues of regional governments in 2001. Estimates of potential own-source revenues should be improved and revenue capacity from these sources strengthened.

Introducing new local taxes and user charges will not be easy and might adversely impact consumption and investment. Efforts to develop and collect new types of taxes are hampered by lack of reliable databases on actual and potential taxpayers, inefficient tax administration, lack of experts, underdeveloped legal and accounting system, and general reluctance of people to pay more taxes. Intensifying collection of old taxes, including on vehicles, land, construction, entertainment, hotels and other accommodation facilities, advertisement, and roads, would thus be more effective. Corporate income tax may not be a desirable source of local revenue because corporate income cyclically fluctuates and is not, therefore, suitable to finance essential local services.

C. Pakistan

In 2000 the Government of Pakistan launched a program to radically alter governance structures by transferring power by devolving authority and granting autonomy to lower-level government, which now not just provide but also plan, finance, regulate, and supervise public services and infrastructure projects. The division of responsibilities between federal and provincial governments is specified in the Constitution. The exclusive responsibilities of provinces include highways, urban transport, irrigation, and mineral resources. Legislation also gave provincial governments certain responsibilities for primary education, curative health, local roads, and farm-to-market roads.

However, a key concern is how to improve the financial strength of local governments, whose fiscal health has steadily deteriorated. Large overall deficits of the provinces have resulted in accumulated debt, which is now serviced by 18-20 percent of recurrent expenditures. This has led to unplanned cuts in spending, resulting in deferral of expenditures, especially those required to maintain critical physical infrastructure. Provinces receive a share of federally levied and collected taxes in the form of transfer constituting over 80 percent of provincial revenues. At least once every 5 years, the National Finance Commission (NFC) reviews and approves the rules on formation and allocation of the divisible revenue pool, such as the list of taxes that comprise the pool, federal and provincial shares in the pool, and the formula for horizontal distribution of resources between provinces. NFC members include the federal finance minister, the four provincial finance ministers, and the other members selected by the President. The provinces have a 37.5 percent share in the divisible pool under the 1996 Award. The pool consists of sales tax, customs revenues, income tax, and federal excises. Provinces also receive other tax transfers and grants from the federal government.

Historically local government tax bases have been narrow because of the highly centralized tax structure. The federal Government still holds exclusive collecting power over major and buoyant taxes, import duties, sales tax, income tax, and excise duty. The provinces are empowered to collect stamp duties on financial and property-related transactions, motor vehicle tax, agricultural income tax, land revenue tax, registration fees, and other user charges. The bulk of provincial nontax revenues comes from irrigation charges and various user charges and fees. However, the taxes or

shares do not match the additional expenditure responsibilities of provincial governments, creating fiscal difficulties.

Table 4 shows the state of provincial budget operations in 1993-2000. Despite fluctuations, the share of budget deficit to total expenditure has increased from 5.5 percent in 1993-1994, to 7.7 percent in 1999-2000. One reason for this is the fast increase in current expenditure. In the same period, current expenditure has doubled, and its share to total expenditure has been increasing, implying that more and more fiscal expenditure of provincial governments is being allocated to nondevelopment spending such as salaries, wages, and debt servicing. Investments in development infrastructures or long-term economic facilities have received low priority.

TABLE 4: PROVINCIAL BUDGET OPERATIONS IN PAKISTAN, 1993/94 – 1999/00
(IN MILLIONS OF PRs)

	1993/94	1994/95	1995/96	1996/97	1997/98	1998/99	1999/00
Total Revenue*	98,821 (100.0)	127,226 (100.0)	147,819 (100.0)	157,170 (100.0)	148,920 (100.0)	157,725 (100.0)	199,151 (100.0)
Share in divisible pool	79,875 (80.8)	104,273 (82.0)	120,446 (81.5)	131,555 (83.7)	114,078 (76.6)	115,573 (73.3)	143,231 (71.9)
Provincial taxes	7,939 (8.0)	9,351 (7.3)	11,614 (7.9)	13,964 (8.9)	13,908 (9.3)	15,494 (9.8)	18,774 (9.4)
Provincial nontax	6,391 (6.5)	6,356 (5.0)	5,923 (4.0)	7,149 (4.5)	10,053 (6.8)	14,574 (9.2)	16,144 (8.1)
Federal grants	4,616 (4.7)	7,246 (5.7)	9,836 (6.7)	4,502 (2.9)	10,881 (7.3)	12,084 (7.7)	21,002 (10.5)
Total Expenditure*	104,607 (100.0)	131,550 (100.0)	156,004 (100.0)	153,700 (100.0)	157,817 (100.0)	161,087 (100.0)	215,858 (100.0)
Current expenditure	84,948 (81.2)	100,302 (76.2)	125,950 (80.7)	134,401 (87.4)	133,607 (84.7)	137,512 (85.4)	179,605 (83.2)
Development expenditure	19,659 (18.8)	31,248 (23.8)	30,054 (19.3)	19,299 (12.6)	24,210 (15.3)	23,575 (14.6)	36,253 (16.8)
Overall Balance*	-5,786 (-5.5)	-4,324 (-3.3)	-8,185 (-5.2)	3,470 (2.3)	-8,897 (-5.6)	-3,362 (-2.1)	-16,707 (-7.7)

* The numbers in parentheses in 2 and 3 are percentages of total and those in 3 are percentages against Total Expenditure (2). Source: Kardar (2002).

On the revenue side, the contribution of the divisible pool has significantly decreased. Its share, which stood at 80.8 percent of total revenue in 1993-1994, increased to 83.7 percent in 1996-1997, but has fallen rapidly since then. By contrast, provinces' own revenue (tax and nontax) has slightly increased. This trend is closely related to fiscal decentralization, although the share of federal grants has sharply increased.

D. Philippines⁸

The Constitution identifies provinces, cities, municipalities, and villages⁹ as subnational divisions. The province is the highest unit of local government, followed by the city or municipality. The *barangay* is the lowest unit. The Local Government Code (LGC) of 1991 empowers the province to exercise general supervision over its component cities and municipalities. However, noncomponent cities, which are highly urbanized and independent, are not under the supervision of any province.

The LGC caused a major paradigm shift in local government finance and introduced far-reaching changes in political and fiscal governance, redirecting development thrusts and encouraging a shift in development strategies from being nationally to locally driven. The LGC mandated the devolution of functions of national government agencies to local government units (LGUs) and provided for a higher LGU share in internal revenue and national wealth taxes. The LGC granted more autonomy to LGUs not only to mobilize resources but also to allocate them. The LGC empowered LGUs to create their own sources of revenue; levy taxes, fees, and charges; and access nontraditional LGU financing, including the issuance of bonds, securities, and other obligations. The LGC also increased LGUs' share in the national taxes from 20 percent before 1991 to 30 percent in 1992, 35 percent in 1993, and 40 percent in 1994 onward.

Since the Asian economic crisis in 1997, local government finance has grown in importance since transfers and aid from the national government have become less feasible under the soaring national budget deficit. Thus, pressure on local governments to deliver basic services devolved to them has become more intense. Important infrastructure projects have been left unattended, hampering development and poverty reduction, and decreasing long-term growth potential.

Outcomes of decentralization over the last decade indicate that many LGUs are unable to meet devolved and new expenditure responsibilities largely due to budget constraints. LGU revenues as a percentage of GDP recorded an average of 3.0 percent in 1992-1995 and 3.9 percent in 1996-2000. LGU expenditures as a percentage of GDP, however, averaged 2.8 percent in 1992-1995 and 3.7 percent in 1996-2000. This apparent fiscal surplus is due to the regulation prohibiting LGUs from registering fiscal deficits. In reality, many LGUs face severe resource constraints that prevent them from making long-term investments in development projects.

Main sources of local government income are taxes, nontax revenues, and income from external sources. Provinces are most dependent on revenues from external sources, followed by municipalities, then cities. The internal revenue allotment (IRA) from the national government is the major external

⁸ This section is based on Capuno (2002) and Oriol (2002).

⁹ Scholarly papers on Philippine history and government written in English use the term *barangays* in the place of villages.

source of LGU income. IRA has never been lower than 95 percent of total externally sourced income of all levels of LGUs under the LGC. Provinces are most dependent on IRA. The average share of IRA to their total externally sourced income was 99 percent in 1992-2000, followed by 98 percent for municipalities, and 97 percent for cities. The average share of IRA to total revenues was 75 percent for provinces, 45 percent for cities, and 66 percent for municipalities. High dependence of LGUs on IRA may be part of the reason why few have fully exploited their own sources of revenue.

Local taxation is the second-largest source of revenue for all levels of LGUs. In the 1990s and 2000, the average share of local taxation in total local sources was 45 percent for provinces, 67 percent for cities, and 59 percent for municipalities. LGUs have not fully tapped nontax revenue sources such as receipts from economic enterprises, fees and charges, loan borrowings, and others.

E. Other Countries

In other DMCs, local government finance has also become an important policy agenda despite much slower decentralization. In 1994 the People's Republic of China adopted the tax separation system, in which the central government and the local governments have separate taxing powers over certain categories of taxes. The result has been the rapid increase in tax revenue collections at both levels. However, the fiscal gap between expenditure and revenue of local governments has been increasing partly due to the disparity between their revenue-raising powers and their expenditure responsibilities. From 1993 to 2001, the share of local government to central government expenditures hovered around 70 percent (71.7 percent in 1993, 72.9 percent in 1996, and 69.5 percent in 2001) while their corresponding revenue share decreased (78 percent in 1993, 50.6 percent in 1996, and 47.6 percent in 2001). Fiscal deficits of local governments stood at CNY172.7 billion in 1994, CNY203.9 billion in 1996, and CNY529.7 billion in 2001. Portions of the deficits were financed through borrowings from state-owned commercial banks and government nonbank financial institutions, but most of the gaps were filled by central government transfers.

In Sri Lanka, provincial revenue collection has covered only about 30 percent of recurrent expenditures while provincial development expenditures have been entirely financed by central transfers. Local government activities are financed by funds received mainly from two sources: local own revenue and transfers from the central government. As the scope for generating local revenue is limited, the bulk of finances for local projects and expenditures of local governments has been provided by the central government, particularly for development projects and social services. The main source of local government revenue has traditionally been taxes on production and expenditure—turnover taxes, assessment rates, license fees, and stamp duty. Total revenue collection of provincial councils, which supervise all local governments, has declined from 0.66 percent of GDP in 1995 to 0.62 percent in 2001.

Decentralization is under way in Thailand to increase the capability of local governments to finance their own public services. Thailand made several initiatives to decentralize governance in the 1990s, but the most concrete effort was initiated by the 1997 Constitution, which, for the first time in Thai history, clearly promotes decentralization. Among the Constitution's objectives is to increase the share of local government expenditures through transfer of responsibilities from the central government, assigning more revenue sources to local governments, and promoting local accountability.

Central government agencies and local governments duplicate functions, as do local governments among themselves. Under the Plan and Process of Decentralization Law of 1999, the first task is to clarify functional assignments within and between central and local governments. Perhaps the most important features of the law are the mandate to devolve a portion of central government revenues to local governments (from 20 percent to at least 35 percent in 2006), the reclassification of revenue sources for each local government, and reform in intergovernmental transfers. Besides their traditional tax and shared revenues, local governments receive general and specific grants from the central Government. The unpredictability of the amount available for transfer each year makes it difficult for local governments to formulate a stable expenditure plan.

In sum, the major issues and challenges of local government finance are the following:

- (i) Local government finance has become an increasingly important issue due to decentralization in the region, but in some countries such as India and Pakistan the fiscal health of local governments has been deteriorating in recent years.
- (ii) Decentralization has limited the capability of some local governments to deliver newly devolved services largely because they were not matched by corresponding revenue-generating authority and capability to carry them out.
- (iii) Local governments continue to rely heavily on central government transfers, but discretionary elements in the computation and disbursement of intergovernmental transfers make the transfers unstable as a source of local government revenue.
- (iv) Excessive reliance of local governments on central government transfers for their development expenditures restricts active and voluntary development of essential infrastructures demanded by local communities.
- (v) Local projects that the central Government is willing to finance wholly or jointly through grants or subsidized credits are not clearly defined, which may lead to financing of commercially viable development projects through subsidized credits.
- (vi) An external financing strategy for local governments should be developed to encourage them to tap long-term private sector resources and to privatize development projects without aggravating local government finance.

III. FISCAL REFORMS TO IMPROVE LOCAL GOVERNMENT FINANCE

Driven by the need to close the fiscal gap and to finance public infrastructure demand, local governments in developing countries implemented fiscal reforms. In several of these countries, central governments instituted fiscal decentralization reforms, devolving to local governments the responsibility of delivering local public services and the authority to generate revenues needed to sustain these services.¹⁰ In varying degrees, these decentralization reforms limited the ability

¹⁰ While several countries enacted decentralization laws, in other countries, decentralization occurred in other forms. For example, Sri Lanka passed the 13th Amendment of the Constitution in 1988, which introduced provincial councils and made local governments subject to them. In Taipei, China, a constitutional amendment simplified the government system. The Taipei, China provincial government became a ministerial agency directly under the Cabinet, and the centrally appointed Taipei, China Provincial Advisory Committee replaced the Taipei, China Provincial Assembly.

of local governments to deliver the newly devolved services and dampened their desire to improve their financial management skills.

In India, decentralization took longer to take root. Only a few states were able to implement fiscal reforms to strengthen local government finance. The Tamil Nadu and Uttar Pradesh state finance commissions rationalized property tax procedures to increase real estate tax revenues that had long been stagnating despite appreciating property values. This required the reform of the Rent Control Act and the universal acceptance and coverage of the 1999 Repeal of the Urban Land Ceiling Act. Other states, such as Andhra Pradesh, began to tap the unexploited user charges as a revenue source by imposing a betterment levy, impact fees, and valorization charges. A couple of municipalities leased out roads and bridges to private players through privatization schemes and by modifying their state toll acts.

A handful of states complemented fiscal reforms with medium-term structural reforms in their finances, which included the following:

- (i) preparing annual budgets guided by a medium-term expenditure plan that yields better results for infrastructure and social development projects, as in Andhra Pradesh and Karnataka, which use a rolling multiyear fiscal plan to assess available resources to finance new programs, thus avoiding the inclusion of new programs in the annual budget that have no corresponding source of financing;
- (ii) signing memorandums of agreement with the central government to set up the state regulatory commission and reform the power sector to reduce the huge losses of state electricity boards, which have been adversely affecting state finances;
- (iii) conducting a comprehensive review of the performance of state public service units for possible restructuring and identifying ways to increase user charges to finance the rapidly growing costs in providing urban infrastructure;
- (iv) dissemination of state financial information, including guarantees and the performance of state-owned enterprises;
- (v) establishing guidelines on state guarantees and debt ceilings, implemented by several states to minimize the moral hazard caused by unrestrained use of state guarantees for subnational borrowings. Assam, Gujarat, Rajasthan, Sikkim, and West Bengal implemented administrative and statutory ceilings on loans and guarantees.

The 2002-2003 Union Budget proposes three initiatives to encourage urban sector reforms to bolster fiscal reforms:

- (i) *Infrastructure Equity Fund*. This will be managed by the Infrastructure Development Finance Company (IDFC) to provide the equity portion of infrastructure projects. A seed fund of Rs10 billion will be raised from the combined contributions of public sector companies, insurance companies, financial institutions, and commercial banks. An institutional mechanism, still to be developed and set up, will coordinate debt financing in infrastructure projects that cost more than Rs2.5 billion. As the coordinating agency, IDFC would work with India's two major financial institutions—the Industrial Development Bank of India (IDBI) and Industrial Credit and Investment

Corporation of India Ltd. (ICICI)—to use this fund to develop and implement projects in various infrastructure sectors.¹¹

- (ii) *Urban Reform Incentive Fund*. With a seed fund of Rs5 billion, the fund will help states implement urban sector reforms, including (i) rationalization of high stamp duty regimes, (ii) levying realistic user charges and mobilizing resources by urban local bodies, and (iii) initiating public-private partnership provision.
- (iii) *City Challenge Fund*. This will help cities fund the costs of attaining sustainable and creditworthy systems of municipal management and service delivery, and partly finance the efforts of urban local bodies to develop an economic reform program and financially viable projects.

The Philippines implemented decentralization at about same time as India. Fiscal reforms to strengthen local government finance have begun to take place in a few cities. For instance, the formula for calculating intergovernmental transfers results in the distribution of bigger IRA, and thus bigger development benefits, to larger LGUs, while the smaller LGUs with limited capacity to increase revenue stagnate fiscally year after year. This impasse in strengthening local government finance is being broken by a group of Philippine cities that completed the first phase of the City Development Strategies Program sponsored by the World Bank and Cities Alliance in 2000. This program helps each participating city to formulate a city development strategy—described as an “urban version of corporate strategy”—through a process designed and owned by the city’s stakeholders. The city development strategy is intended to help the city achieve a targeted level of livability and competitiveness by improving urban governance and fiscal balance (Cities Alliance 2002).

After identifying the priority projects that support their CDS, the cities of San Fernando (La Union), Olongapo, Lapu-Lapu, and Dapitan strengthened their financial management skills and prepared an investment framework including funding sources, feasibility studies, three-year financial statements, and other documents required for project funding. The first three cities were able to secure funding for their urban infrastructure and poverty reduction projects. The fourth city is negotiating with an international agency to fund its cultural tourism initiatives.¹²

Three other DMCs have also begun reforms to strengthen local government finance. The impact of these reforms may be limited due to rapid urbanization and the need for massive investment. In Thailand the 1994 law instituting changes at the village level, and the 1999 decentralization law are important foundations to improve local governments’ finance management. All subdistrict¹³ councils are now juridical bodies, and the subdistrict administrative organizations (SAOs) have

¹¹ Recently, the National Highways Authority of India discussed a proposal with the IDFC to set up a mutual fund—the Indian road fund—with seed capital coming from the Infrastructure Equity Fund, and the rest from banks, financial institutions, and multilateral agencies such as ADB and the World Bank. The fund will be governed by a professional board and be used to leverage more funds from the public for road development projects (Business Line 2002).

¹² For examples of how improved governance in local governments improves the pride and participation of constituents, which in turn strengthens local government finance, see the cases of Ahmedabad, India, and Naga City, Philippines in Hamid and Martin (1999).

¹³ Scholarly papers on Thai history and government use the term *tambon* in place of subdistrict.

been created. Subdistrict councils and SAOs have political and revenue-raising powers, including to issue regulations and develop local area development plans, to fulfill their devolved expenditure assignments. The subdistrict chief and village head are now mere representatives of the central government as they have relinquished their executive role to SAO members, who are elected by the people.

In Thailand central and local governments work together to implement the decentralization law and seek ways to consolidate small LGUs to meet the minimum scale for cost-effective governance.¹⁴

Indonesia and Korea are also implementing decentralization. Indonesia began to implement Laws 22 and 25 on 1 January 2001 (see footnote 7). Korea, after 34 years of economic development driven by the central government, passed the 1995 Local Autonomy Act, which brought back local elections. Indonesia and Korea face a common challenge: their system of intergovernmental transfers worsens income disparities between the rich cities of Jakarta and Seoul and the poor regions.¹⁵

IV. EXTERNAL BORROWING AND PRIVATIZATION EFFORTS BY LOCAL GOVERNMENTS

Local infrastructure projects in DMCs have been traditionally financed by central governments and by on-lending of high-level governments. Since demand for local infrastructure finance is growing faster than supply of these traditional sources, local governments should examine various innovations, such as foreign borrowings and privatization schemes. A policy and cultural milieu in these DMCs sets up prohibitive barriers for local governments to access foreign borrowings and initiate privatization. Local governments, however, have introduced innovations to overcome barriers.

Korea and India have pioneered special-purpose vehicles (SPVs), creative debt conversion and credit pooling, and infrastructure bonds to overcome restrictive regulations on bond financing and limited creditworthiness of local governments. In Korea, several city governments issued Samurai

¹⁴ Suwanmala (2002, Table 3) shows that 75.7 percent of the 6,395 SAOs, and 67.7 percent of the 1,028 town municipalities had populations of 8,000 and below in 1999.

¹⁵ Kim (2002, 54-5) suggests asymmetric decentralization as a possible solution to this problem: "An option one can think of to have more decentralization without transferring national resources to already resourceful local governments is asymmetric decentralization. By asymmetric decentralization, we mean that local governments are given a menu of public services that can be provided at the local level if the local governments opt for it. Normally, transferring resources that are needed to provide such public services is subject to heated debates. But, under the asymmetric decentralization scheme, local governments have an option not to participate in the local provision of public services if the amount of transferred resources is not satisfactory. Therefore, when no transfer of resources is promised by the central government, nothing can happen since no local government might be willing to provide local services without any financial support from the central government.

"However, there might be some local governments that prefer independent decision making even if minimal financial support is given. When Spain initiated decentralization in the late 1970s, local governments were given the option of providing education and health care at the local level, without being guaranteed sufficient financial transfers from the central government. However, rich cities such as Madrid and Barcelona opted for the independent provision of those services since it meant greater political independence for them. Also, other local governments gradually followed such track."

bonds to finance local development. For example, the construction of Daejeon Riverside Expressway is partly financed by a ¥13-billion Samurai bond issued in 2001, which was considered a record-setting transaction in infrastructure finance because it was (i) the first structured Samurai bond issue,¹⁶ (ii) the first 10-year private bond issued in foreign markets, and (iii) the first Korean private participation in infrastructure with foreign equity. A French and a Singapore company formed a consortium with a Korean company, and each contributed one third of the equity to the project company, Daejeon Riverside Expressway Company Ltd.

This bond issue introduced an innovation to satisfy a clause in Korean commerce law, which requires that the amount of corporate bonds should be less than 400 percent of the net assets. An SPV,¹⁷ the Daejeon Riverside Expressway Funding Company, was created in Ireland to satisfy this clause and to take advantage of the low tax rates in Ireland and the double-tax treatment between Korea and Ireland.¹⁸ This Irish SPV issued the limited-recourse¹⁹ bonds, and the proceeds from selling the bonds were loaned to Daejeon Riverside Expressway Company Ltd. via Macquarie Bank.

This path-breaking bond financing of a toll road project has three positive implications in the development of local government bond finance and infrastructure investment. First, many sectors consider this to be the first successful demonstration of how a public-private partnership can use foreign equity to finance an infrastructure project. Second, Daejeon City took advantage of the low capital rates in the Japanese capital markets amid local governments' common practice of not tapping these markets. Third, the formation of a joint venture that involved the issuance of Samurai bonds by a foreign SPV to meet the requirements of a clause in Korean commerce law should encourage other Korean companies to resort to similar innovations to finance future infrastructure projects.

¹⁶ A financial instrument is said to be structured when it funds a project based on identifiable assets rather than on the entity's credit standing. A structured financial instrument includes various forms of lending where the entity's cash flows entity are intercepted to pay off the lender.

¹⁷ The definition here refers to an SPV as a special-purpose entity (SPE): "While there is no precise definition either in the law or accounting rules, the basic idea is that an SPE is an entity with a limited purpose that is expressed in its charter or in the contracts in which it engages. Unlike normal firms, SPEs do not have significant ongoing control issues, because their decision-making follows a predetermined path. SPEs often have no or tiny equity claims, with owners of record bearing little risk and return. Instead, the main bearers of the risk and return on SPE assets are often the (potentially numerous) contractual counterparties of the SPE. In such cases, it is better to think of an SPE as the conduit for a set of contracts rather than as a firm in the usual sense" (Ryan 2002).

¹⁸ Control of the local bond market by the Ministry of Government and Home Affairs included the case of foreign SPVs issuing Samurai bonds. Thus, this arrangement allowed the project company to satisfy the said clause in Korean commerce law.

¹⁹ Limited recourse is a type of financing more commonly known as project finance, "where the creditors share much of the venture's business risk and, second, that funding is obtained strictly for the project itself without an expectation that the corporate or government sponsor will co-insure the project's debt—at least not fully" (Kleimeier and Megginson 1999, 3).

TABLE 5: DEBT REFUNDING PLAN OF SUBWAY DEBT THROUGH SAMURAI BONDS

YEAR OF ISSUE	SIZE OF ISSUE (¥ BILLIONS)	TRANCHE (¥ BILLIONS)	MATURING IN (YEARS)
2002	48.5	1 st 12.5	1
		2 nd 11	2
		3 rd 10	3
		4 th 10	4
		5 th 5	5
2003	8	1 st 4	3
		2 nd 4	4
2004	6	6	4
2005	5	5	5
2007	10	1 st 5	5
		2 nd 5	6

Source: Kim (2002).

TABLE 6: DETAILS OF FIRST ¥48.5 BILLION SAMURAI BOND ISSUE BY THE CITY OF SEOUL

ISSUED	SIZE OF ISSUE (¥ BILLIONS)	TRANCHE (¥ BILLIONS)	MATURITY (YEARS)	COUPON RATE (PERCENT)	EQUAL TO A STSL* (BASIS POINTS)
December 2002	48.5	1 st 12.5	1	0.39	27
		2 nd 11	2	0.60	44
		3 rd 10	3	0.77	55
		4 th 10	5	1.06	70
		5 th 5	7	1.37	79

*STSL stands for spread to swap levels.
Source: Lord (2002).

**TABLE 7: COMPARISON OF DEBT RETIREMENT BETWEEN OECF LOAN AND SAMURAI BOND, 2003-2015
(BILLIONS OF YEN)**

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
OECF Loan	6.1	11.9	17.7	23.2	28.6	33.8	38.4	42.3	46.1	49.8	53.3	56.7	60.1
Samurai Bond	4.9	10.4	15.8	20.3	24.7	31.3	36.7	42.1	42.3	47.6	52.8		

Source: Kim (2002).

Seoul provides another example of innovative Samurai bond financing. To reduce the burden arising from subway company debts, the Seoul Metropolitan Rapid Transit Corporation decided to convert the W450-billion loan from the Overseas Economic Cooperation Fund (OECF) of Japan—comprising 22.7 percent of its the total debt as of December 2001—into Samurai bonds beginning 2002. The OECF loan was borrowed during 1984-1997 at interest rates of 4.00-4.75 percent, and will be fully retired by 2015. According to the debt-refunding plan, Seoul will issue ¥77.5 billion worth of Samurai bonds in 2002-2007. Seoul issued its first Samurai bonds worth ¥48.5 billion in December 2002 and received a credit rating of A- from Standard and Poor's and Japan Rating and Investment Information Inc. The Samurai bonds will be retired by 2013, 2 years earlier than the OECF loan. Seoul expects to save about ¥7 billion in interest payments (Tables 6-8).

Recognizing Seoul's systematic efforts to reduce its debt burden, Standard and Poor's upgraded the city's domestic bond credit rating to A- in July 2002 and to A+ in October 2002. Moody's also upgraded the city's foreign bond credit rating from Baa2 to A3 in October 2002. Standard and Poor's noted that the city's efforts to establish medium- and long-term plans to manage its debts—arising from the construction of its subway and the World Cup stadium—send positive signals to the market.

India implemented various innovations to overcome the limited creditworthiness of small local governments. One innovation was credit pooling, which was partly successful. One example of successful credit pooling is the state bond banks in the United States (US). Here, a special state intermediary with a superior credit rating raises funds through bond issuance and on-lending to local governments by purchasing their bonds.²⁰ There are two types of credit pooling. The "blind pool" consists of a bond bank raising sufficient funds based on its own credit rating and then on-lending to local governments. The project-specific pool gathers and lumps several projects together in a bond issuance, reducing transaction costs and improving pricing significantly.

While working with Tamil Nadu Urban Development Fund under its Financial Institutions Reform and Expansion, USAID formulated a project-specific pooling initiative called the Water and Sanitation Pooled Fund (WSPF). The first pooled fund in India, it was created through a Development Credit Authority guarantee of \$3.2 million. This guarantee serves as a credit enhancement for pooled financing of water and sanitation projects in Tamil Nadu's 14 small and medium-sized local bodies,

²⁰ US state bond banks will be discussed further in the next chapter.

which have little or no credit ratings. USAID's partial credit guarantee enabled the bonds to extend maturities from 7 to 15 years. The Tamil Nadu Urban Infrastructure Financial Services Ltd., acting as asset management company for the Tamil Nadu Fund, purchased the bonds of municipalities and funded them by issuing its own bonds with the usual credit enhancements.²¹

Two recent developments in India support its first pooled finance initiative. If successful, they can spread this pooling initiative to other states. First is the proposal of 2002-2003 Union Budget to create a pooled finance development scheme (PFDS) that will promote bond issues with credit enhancements to help smaller urban local bodies access capital markets. The pooled financing mechanisms such as the two funds above are not limited to commercial lending of funds but also provide market loans blended with grants and concessionary funds. The mechanisms also provide technical assistance in project preparation and financial management to local governments.

The second initiative is the growing popularity of infrastructure bonds as a source of funds for infrastructure projects. Investors with surplus funds from canceled placements in small-savings certificates, which have lower returns, are putting the funds into infrastructure bonds, which have become more attractive due to their improved tax advantage. For instance, beginning 2001-2002, the maximum amount of investments that can be deducted from a person's taxable salary income has been raised to Rs80,000, subject to a minimum investment of Rs20,000 in infrastructure bonds.

Several successful innovations—such as build-operate-transfer (BOT) and similar mechanisms, SPVs, equity contributions from state governments, power purchase agreements—have enabled local governments in Taipei, China, and India to encourage private sector participation in local infrastructure projects. An example of the successful use of a BOT mechanism was the Taipei 101 project. The Taipei city government sought to compete with Hong Kong, China, and Singapore as a regional financial center. The city government announced a BOT investment project for a 101-storey, 508-meter tower. It will be the tallest building in the world and host the Taipei, China Security Exchange. The BOT project, with a 70-year contract on land-use rights and a lump-sum royalty and annual land rent to be collected by the city government, received a winning bid of NT\$20.668 billion, double the city's request.

India has also utilized BOT and its variations—build-own-operate, build-operate-lease-transfer—to finance infrastructure projects. These arrangements have been complemented by government support in the form of equity participation, concessions in land or water supply, dedicated revenue streams for loan repayments, and a transparent regulatory framework. Many states have created SPVs to finance their urban infrastructure projects through private-public partnerships. SPVs are formed with seed capital from equity contributions from state governments or sponsors. Project financing through SPVs has certain advantages: (i) liabilities of the promoter are limited to the specific project, (ii) lending is done without guarantees from the sponsors, and (iii) one of the sponsors is usually assigned to oversee day-to-day operations. In this sense, SPVs are similar to US state revolving funds (SRFs).²²

The Noida Toll Bridge Project is an example of how an SPV was created to implement a project

²¹ Bond investors can have the option of either calling (or retiring) the bonds after 7 years at a predetermined price or receiving a specified cash payment each year through an annuity repayment mechanism.

²² A discussion on state revolving funds is included in the next section.

using the build-own-operate-transfer scheme. In this case, the Infrastructure Leasing and Financial Services Ltd. (IL&FS) and Noida, an agency of the Uttar Pradesh government, created the Noida Toll Bridge Company Ltd. (NTBCL) to build the eight-lane, 7.5-kilometer (km) Delhi-Noida-Delhi (DND) Expressway, which was completed 4 months ahead of schedule and started commercial operations on 7 February 2001. It cuts travel time between South Delhi and Noida from 30 to 8 minutes. The first of its kind to be funded by foreign equity, the expressway cost Rs4.1 billion, with funds from the World Bank, IL&FS, Noida, and 12 domestic banks and financial institutions. South Africa's Intertoll, the O&M contractor for the project, will get 11 percent of the toll revenues collected by NTBCL in the first 10 years of operation. The revenue-sharing agreement is intended to encourage Intertoll to attract more traffic. After 10 years, Intertoll will be paid Rs0.725 per vehicle and Rs31.9 million per annum to cover fixed and variable costs, both of which will be indexed to inflation. Investment funds placed in the project are guaranteed a return of 20 percent, and promoters expect to fully recover their investments in 25 years. After 30 years, the project will be transferred to Noida without charge. It will administer toll collections, which will be indexed to the consumer price index (*Business Line* 2001).

The water supply and sewerage project of the New Tirupur Area Development Corporation Ltd. (NTADCL) is the first build-own-operate-transfer scheme in India, with a total cost of Rs11.6 billion.²³ The project will build a 55-km pipeline from the Cauvery River, a water distribution network of about 350 km; raw water and sewerage treatment plants; pumping stations; and conveyance facilities. The water component was completed in April 2002; the sewerage component will be completed in 2006. When fully operational, this water supply and sewerage system will supply 185 million liters of water per day to about 1,000 textile firms and over 1.6 million residents in Tirupur, Tamil Nadu, and surrounding areas. IF&SL developed this project with USAID. The project is considered the first public-private sector partnership in the country. In January 1999 NTADCL signed an agreement with a consortium for a private integrated water and sewerage project in Tirupur. The consortium is composed of Mahindra Realty and Infrastructure Developers Ltd., a subsidiary of Mahindra and Mahindra Ltd.; Bechtel Enterprises Inc.; and United Utilities International of the United Kingdom. Debt and equity funds will finance the project. Equity will come from the state government, Tirupur Exporters Association, financial institutions, international funding agencies, and convertible debentures. Deep-discount bonds and loans from international funding agencies will contribute to the debt component. USAID has provided \$25 million in loan guarantees. When operational, the water and sewerage system will be handed over to NTADCL and United Utilities, which have formed a joint venture to handle project O&M. The joint venture will handle O&M in the next 30 years for a fixed fee (*Water Technology* 2002).

Power purchasing agreements have been successfully used by Indian state electricity boards to develop electric power projects. For example, state electricity boards and independent power producers have entered into an agreement on the former's minimum power purchase and electricity tariff rates. This agreement allows a 100 percent foreign direct investment in exchange for a central

²³ The project used a "take-out" financing arrangement. The mechanism, pioneered in India, typically involves a specialized financial intermediary, such as the IDFC. The intermediary commits to "take-out" (or assume financing of) the project when it becomes operational, and banks take up the earlier maturities. This way, banks are able to use their short-term maturity deposits by pulling out their investments at the end of a specified period.

government guarantee to implement several fast-track projects. This kind of arrangement has made investments in the power sector attractive to lenders, prompting the major financial institutions to make considerable exposures. As customers are willing to pay user charges for value-added services, privatization initiatives with similar arrangements were made in telecommunications. Success of these privatization initiatives was assured by establishing independent regulatory agencies that guarantee a minimum level of demand for services and set a competition policy to make investments viable.

V. DEVELOPING LOCAL AND MUNICIPAL CREDIT MARKET

Developing local credit markets is imperative for local governments in Asia because of the need to access private domestic savings to finance infrastructure investments for urban services. Local governments should consider two models of municipal credit market—the bank lending model used in Western Europe, and the municipal bond model used in North America—and select from each model various elements appropriate for the countries’ sociocultural-political milieu. Local governments may start with either model but will typically end up with both models serving different segments of the local credit markets (Peterson 2002).

Municipal bank lending, characterized by the principles of “relationship banking”, “delegated monitoring”, and “bundled services and bundled pricing”, is suitable for less creditworthy city governments that need to be assisted at each phase of project implementation. An example of how this model was used successfully to build a local credit market was the Czech Municipal Finance Corporation (CMFC). It had a system that matched creditworthy borrowers with commercial banks and let them assume all the credit risk. After their successful experience in using funds from CMFC, the banks used their own funds to lend to municipalities. Building a local credit market using this model in countries that have little or no history of relationship banking will be difficult because financial deregulation usually forces municipal finance corporations to act like commercial banks. Municipalities will be limited to issuing short-term loans and resort to real estate-based lending due to the staff’s unfamiliarity with local government operations (Peterson 2002).

In contrast, municipal bond markets, which thrive on the principles of “competition”, “public monitoring”, and “unbundled services”, can be accessed directly by local governments that have strong local financial management capabilities. The US municipal bond market is the most vibrant form of this model. It introduced credit-rating agencies, public disclosure of financial information, and private bond insurance to limit credit risk. Developing countries may find it difficult to adopt the US model to their infant local credit markets. First, the benefits of credit-rating agencies may be watered down when the model is introduced in a regime of restricted access to financial information. Second, most policymakers wrongly assume that bond issues immediately open the doors to long-term financing, thus failing to craft the policies that will make long-term finance possible. Third, this model is deficient in serving the needs of smaller and less creditworthy local governments.

This last deficiency has been overcome by credit pooling as implemented by specialized financial intermediaries such as TNUDF, which has also used various mechanisms to help local government access long-term funds for infrastructure projects. Two examples are (i) the 15-year bond issue (Rs300 million) sold on the domestic capital market to finance the credit component of the Madurai

Ring Road financing, and (ii) the equity investment by a private sector firm in an India's project for wastewater collection and treatment. In the first example, the bond included credit enhancement measures such as escrow accounts for earmarked revenues, independent trustees representing bondholders' interests, and back-up guarantees similar to those used by US state bond banks. These measures have been combined with a careful assessment of the municipality's willingness to pay in the successful bond issues of a few Philippine cities in recent years. In the second example, a direct investor enjoys similar credit enhancement schemes used in the above bond issue.

Another special financial intermediary worth examining is the Infrastructure Finance Corporation Ltd. (Inca) of South Africa. It was formed by a private financial group as a specialized municipal lender and now finances more than half the municipal credits in South Africa. Inca has been able to consistently earn returns on equity in excess of 20 percent while charging spreads of 50–100 basis points between its own cost of capital, raised primarily through bond issues, and its municipal lending rate. Inca's high repayment rate hinges on an aggressive monitoring system. For example, Inca staff call borrowers every week to monitor their financial conditions. Whenever a borrower is past due in its loan payment, Inca secures a court order within several days, which enables Inca to foreclose the borrower's assets. It is able to use this to "stick", which it has never exercised, to persuade delinquent borrowers to update their loan payments. Inca also never takes the government as a cofinancer, to ensure the necessary independence and credibility to enforce prompt loan payments.

Since credit pooling appears to have a great potential for enabling small local governments in DMCs to finance infrastructure projects through bond issuance, the lessons learned from credit pooling experience of US bond banks and SRFs should be considered. A state bond bank is "a state-sponsored entity that makes local infrastructure projects feasible by providing access to the municipal bond market and by providing direct and indirect financial subsidies to localities primarily through debt issuance." The first US general purpose bond banks were created in Vermont in 1969 and Maine in 1972. Special-purpose bond banks usually catered to the needs of educational institutions. The oldest educational-purpose bond bank, Virginia Public School Authority, was created in 1962 to provide low-cost financing to Virginia school systems (Government Finance Group Inc. 1997).

In 1987, the Federal Clean Water Act created the special-purpose state borrowing entities through SRF. The act aimed to shift the financing of water and wastewater treatment programs from direct federal grants to a revolving loan fund. With seed capital from the federal government, SRF, which was usually housed in state bond banks, used funds from loan repayments to make new loans. The SRF program operates in all 50 states in different forms, but in all cases the federal grant of 80 percent and the state-matching share of 20 percent must remain in the corpus of the fund. Most SRFs are rated from A to AAA (Government Finance Group Inc. 1997).

The financing program of a bond bank could be in the form of a long-term bond pool, cash-flow financing, or equipment-lease financing. Bond banks enjoy good credit ratings, with most given a minimum of A for being able to pool a large number of small loans and provide a variety of state credit enhancements. An analysis survey of 17 state bond banks (Government Finance Group, Inc. 1997) provides a list of their advantages and disadvantages, which designers of future credit-pooling funds in developing countries should note. Table 9 shows that localities valued bond bank issuance due to lower cost of capital (lower interest and issuance cost) and improved access to capital markets, particularly for projects that are too small to sell bonds on a stand-alone basis.

**TABLE 8: SURVEY FINDINGS ON BENEFITS OF BOND BANK ISSUANCE
FOR 17 STATE BOND BANKS (UNITED STATES)**

REASON	AVERAGE RANKING	MENTIONED IN TOP 3 REASONS*	NOT MENTIONED OR IN BOTTOM 3 REASONS*
Lower interest cost	1.2	16	0
Lower issuance cost	2.9	15	0
Improved market access	3.4	9	0
Borrower too small for direct sale	4.9	5	3
Administrative burden less	7.4	8	1
No credit rating required	7.5	1	6
Lessens disclosure burdens	8.4	0	1
Avoidance of voter approval	9.1	1	16

*Out of a maximum of 17.
Source: Government Finance Group (1997).

In the analysis survey, bond banks cite two disadvantages that are useful for fund designers of credit pooling. First is the lack of flexibility experienced by local borrowers due to rigid financing schedules and terms. Due to the complexity of organizing a pooled bond issue, bond banks designed fixed or relatively inflexible financing schedules. Borrowings could have been made inflexible to keep the high credit quality of the pool and to satisfy statutory restrictions on bond banks. Moreover, local borrowers had no hand in the selection of the financing team and other consultants. The second disadvantage is that borrowers with good credit standing are better off issuing bonds on their own because they can avail themselves of lower interest and issuance costs. Large borrowers with weak credit ratings may also overwhelm the capacity of a bond bank structured on a portfolio basis and, therefore, be unable to access capital through this route.

SRFs are able to minimize these disadvantages by lending to small borrowers with poor credit ratings. SRF loan programs are either direct, which use only seed capital and subsequent loan repayments to generate a supply of loans, or leveraged, which combine seed capital with borrowed funds to raise upfront supply of loans. A leveraged SRF program with reserve fund is useful to developing countries looking for a pooled fund arrangement, because like the states that were starting a leveraged SRF program in the early 1990s, they do not have a seasoned portfolio and need to quickly raise a large amount of loan upfront. In a reserve fund program, seed capital and borrowed funds are deposited into a reserve fund and are not used to make loans. Interest earnings on the reserve fund are used to pay shortfalls on loan repayments. In most programs, the reserve fund is a constant percentage of the outstanding loan balance. As the loan principal is paid, a part of the reserve is freed and used to leverage more loans (Neil Flanagan, Bear, Stearns & Co. Inc. 2002).

VI. CONCLUSIONS

Highlights of previous discussions can be summarized in the following points:

- (i) Despite enormous efforts by DMC governments to improve tax systems, the distribution of tax power between the central and local governments still involves imbalances displaying a highly centralized feature and a substantial mismatch with the political decentralization. In order to avoid this problem, Bahl (1998) points out that the assignment of expenditure responsibility at the local level should come before the assignment of revenue responsibility.
- (ii) Intergovernmental fiscal transfers, often the largest source of LGF, should play a major role in strengthening LGF and narrowing disparity in delivery of economic and social services between regions, without creating moral hazard and inefficiency in national resource allocation.²⁴ The World Bank-initiated CDS and its experience in the Philippines provides useful insights for gathering the best practices in minimizing disincentives to strengthen local government finance, due to intergovernmental transfers.²⁵
- (iii) As a means of strengthening LGF, private sector participation in major income-earning regional infrastructures needs to be encouraged in the manner that ensures efficient service delivery at lower costs and maximizes external economies. The experiences in India; Korea; and Taipei, China in encouraging private sector participation in infrastructure financing are worth exploring in order to see how they can be adapted to needs of other DMCs. Encouraging private sector participation in infrastructure financing can also benefit from a study of New Zealand's experience in implementing "contractualism", which involves "establishing more explicit, contract-like relationships at all levels of government and making a concerted attempt to replicate market-type mechanisms within the public sector" (Boston 1999).
- (iv) In the decentralized government regime, domestic credit markets must be capable of generating long-term financing for cities, provinces and their infrastructure agencies, so that these institutions can carry out their investment responsibilities. It should be useful to review in the future, the experiences of the credit pooling schemes being currently implemented by some Indian states in helping small local governments access long term funds and establish the credit rating that will help them access it on their own creditworthiness in the future.

This paper discussed several lessons learned from country experiences in building local credit markets. These lessons, discussed below, can serve as basis for gradual and stepwise adjustments to building new local credit markets in developing countries (Peterson 2002).

²⁴ Bahl (2000, 1) points out two general principles in the design of intergovernmental transfers. "The first is that there are many different forms of intergovernmental transfers, and the right choice for a country depends on the objectives to be achieved. The second is that most countries adopt several forms of transfer, and these have to be viewed as a system with the important evaluation issue being their overall impact."

²⁵ Philippine LGU Assistance Portal (2002) shows how four Philippine cities used the CDS exercise to secure funding for local projects.

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- (i) Since local government borrowing will always be a small portion of a country's credit market, development of local credit markets will be successful when SFIs and commercial institutions face similar sets of incentives, disclosure guidelines, credit ratings, and legal procedures.
 - (ii) A single-purpose infrastructure financing authority that has the political independence to operate international on-lending programs and develop the domestic credit market is desirable. Good examples of this are the TNUDF and the Shanghai Water Assets Operations and Development Company. Both have instituted mechanisms to ensure operation without undue government interference.
 - (iii) Infrastructure financing authorities, similar to municipal development funds, should have a concrete plan to unbundle its services so that its authority and functions can be devolved to other providers and allow new players to enter the local credit market.²⁶
 - (iv) Infrastructure financing authorities should design and implement an aggressive monitoring system to ensure a high repayment rate, the most basic measure of a local intermediary's success in building a local credit market. The innovations of Inca in this area should be studied.
 - (v) Full, prompt, and continuing disclosure of municipal budgets and financial conditions is essential to the operation of credit markets, especially bond markets, which rely on public monitoring.
 - (vi) In the long run, an infrastructure financing authority's job is to raise capital efficiently. Options to examine are the design of legal provisions allowing the tapping of pension funds as a source of local government finance, ways of developing a secondary market for bond trading, and ways of blending cheap capital with capital priced at market rates.

Although the experiences presented here show the wide variation among local DMC governments' capacities to finance infrastructure investments and basic service delivery, they nevertheless reveal two things that these DMCs have in common, which make one optimistic about their capacity to finance them in the future. First, in varying degrees, these DMC local governments have shown a common knack for creating innovations that overcome the legal and political obstacles in tapping financial resources for local projects and services. Second, they share a common realization they would be better poised to finance these greater demand for investments and services if they are able to develop vibrant local credit markets. This is a bright sign.

²⁶ See discussion of key issues in Peterson (1996) and Phelps (1997).

REFERENCES

- Bahl, R., 1998. "Implementation Rules for Fiscal Decentralization." Paper presented at the International Seminar on Land Policy and Economic Development, Land Reform Training Institute, 17 November, Taipei, China.
- , 2000. "Inter-governmental Transfers in Developing and Transition Countries: Principles and Practice." In *Municipal Finance Background Series No. 2*. The World Bank. Available: <http://www1.worldbank.org/publicsector/decentralization/cd/ITFPrinciples.pdf>.
- Bandara, A., 2002. "Local Government Finance and Bond Financing (Sri Lanka). Final Report." Paper presented at the Asian Development Bank Conference on Local Government Finance and Bond Market Financing, 19-21 November, Manila, Philippines.
- Boston, J., 1999. "New Zealand's Model of Public Management: The Promise and the Reality." *National Institute for Research Advancement (NIRA) Review*. Available: <http://www.nira.go.jp/publ/review/99spring/boston.html>
- Brockman, R. A. C., and A. Williams, 1996. *Urban Infrastructure Finance*. Asian Development Bank, Manila, Philippines.
- Business Line* (Internet Edition), 2001. "Noida toll bridge to begin operations from Feb 1." 23 January. Available: <http://www.blonnet.com/2001/01/23/stories/092340na.htm>.
- , 2002. "Road Map for Indian Road Fund." 9 March. Available: <http://www.blonnet.com/2002/03/09/stories/2002030901170800.htm>.
- Capuno, J. J., 2002. "Intergovernmental Fiscal Transfers in the Philippines." In P. Smoke and Y. H. Kim, eds., *Intergovernmental Transfers in Asia—Current Practice and Challenges for the Future*. Asian Development Banks, Manila, Philippines.
- Cities Alliance, 2002. *Making Cities Work for All: Global Action for City Development Strategies*. Available: http://www.worldbank.org/html/fpd/urban/city_str/cds_ap.pdf.
- Duncan, R., and S. Pollard, 2002. A Framework for Establishing Priorities in a Country Poverty Reduction Strategy. ERD Working Paper Series No. 15, Economics and Research Department, Asian Development Bank, Manila, Philippines.
- Firdausy, C., 2002. "Study on Local Government Finance and Bond Market Financing in Indonesia. Final Report." Paper presented at the ADB Conference on Local Government Finance and Bond Market Financing, 19-21 November, Manila, Philippines.
- Government Finance Group Inc., 1997. An Analysis of State Bond Banks. CIFA Monograph No. 9, Council of Infrastructure Financing Authorities, . Washington D. C. Available: <http://www.cifanet.org/news/bb97report.pdf>.
- Hamid, N., and J. Martin, eds., 1999. "Leadership and Change in City Management." In *Asian Cities in the 21st Century: Contemporary Approaches to Municipal Management*, Vol. 1. Asian Development Bank, Manila, Philippines and ADB Institute, Tokyo, Japan.
- Kang, J., 2002. "Study on Local Government Public Debt Financing in the People's Republic of China. Final Report." Paper presented at the ADB Conference on Local Government Finance and Bond Market Financing, 19-21 November, Manila, Philippines.
- Kardar, S. H., 2002. "Local Government and Finance and Bond Market Financing: The Case of Pakistan. Final Report." Paper presented at the ADB Conference on Local Government Finance and Bond Market Financing, 19-21 November, Manila, Philippines.
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- Kleimeier, S., and W. L. Megginson, 1999. "An Empirical Analysis of Limited Recourse Project Finance." Working draft. Available: <http://faculty-staff.ou.edu/M/William.L.Megginson-1/pfpaper.pdf>.

- Lewis, B. D., 2003. Intergovernmental Transfers in Indonesia. In P. Smoke and Y. H. Kim, eds., *Intergovernmental Transfers in Asia—Current Practice and Challenges for the Future*. Asian Development Bank, Manila, Philippines.
- Lord, N., 2002. "Seoul Scores in Japan." *Finance Asia*. Available: <http://www.financeasia.com/articles/94EB028D-0B3A-11D7-81E70090277E174B.cfm>.
- Neil Flanagan, Bear, Stearns & Co. Inc., 2002. Elemental Structure of Leveraged SRF Programs. In *State Revolving Fund: Training Manual*. Council of Infrastructure Financing Authorities (CIFA) and United States Environmental Protection Agency. Available: [http://www.cifanet.org/news/Chapter percent20Three.pdf](http://www.cifanet.org/news/Chapter%20Three.pdf).
- Orial, L., 2002. "Local Government Finance and LGU Bond Market Development: Philippines. Final Report." Paper presented at the ADB Conference on Local Government Finance and Bond Market Financing, 19-21 November, Manila, Philippines.
- Peterson, G., 1996. *Using Municipal Development Funds to Develop Municipal Credit Markets*. The World Bank, Washington, D. C. Available: http://www.worldbank.org/html/fpd/urban/mun_fin/toolkit/77p.pdf.
- , 2002. "Banks or Bonds: Building a Municipal Credit Market. Final Report." Paper presented at the ADB Conference on Local Government Finance and Bond Market Financing, 19-21 November, Manila, Philippines.
- Phelps, P., ed. 1997. *Municipal Bond Market Development in Developing Countries: The Experience of the U.S. Agency for International Development*. United States Agency for International Development, Office of Environment and Urban Programs, Washington, D. C.. Available: <http://www.iadb.org/rdm/documents/NEWBONDS4.pdf>
- Philippine LGU Assistance Portal, 2002. *Outcomes from 4 CDS1 Cities*. The World Bank, Washington D. C. Available: <http://www.lguportal.org/Products/Ongoing/4cnds.htm>.
- Pradhan, H. K. 2002. "Local Government Finance and Bond Market Financing: India. Final Report." Paper presented at the ADB Conference on Local Government Finance and Bond Market Financing, 19-21 November, Manila, Philippines.
- Ryan, S., 2002. *How Should Accounting Cope with Structured Finance?* Available: <http://www.smartpros.com/x35459.xml>.
- Setapa, A., 2002. "Study on the Development of Government Bond Markets in Selected Developing Member Countries: The Case of Malaysia. Final Report." Paper presented at the ADB Conference on Local Government Finance and Bond Market Financing, 19-21 November, Manila, Philippines.
- Suwanmala, C., 2002. "Fiscal Decentralization in Thailand." Background paper prepared for the ASEM-World Bank Workshop in Intergovernmental Fiscal Relations in East Asia, 10-12 January, Bali, Indonesia. Available: <http://www.worldbank.org/wbi/publicfinance/documents/ASEM/suwanmala.pdf>.
- Tsui, S., 2002. "Local Government Finance and Bond Financing: The Case of Taipei, China. Final Report." Paper presented at the ADB Conference on Local Government Finance and Bond Market Financing, 19-21 November, Manila, Philippines.
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- Water Technology, 2002. *Tirupur Water and Sewerage Project, India*. Available: <http://www.water-technology.net/projects/tirupur/>
- , 2002. *What are City Development Strategies?* Available: http://www.worldbank.org/html/fpd/urban/cds/main/whatiscds_2.htm.

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