Chapter 22

Asia

People's Republic of China

This nation is characterized by huge needs, vast potentials, and a changing governmental system that is sorting out how to go about financing infrastructure.

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Lessons Learned

China's intergovernmental system, like its economic system, has been evolving over the past 20 years. As the economy has moved from central planning and direction to a more open, market-based regime, so has there been greater decentralization of governmental decisionmaking and more local fiscal autonomy. However, the matching of public sector resources to spending assignments has been imperfect at best, leaving heavy spending loads on some localities that have few resources of their own, while helping others achieve relatively strong financial positions.

The combination of constrained formal budgets and the ability to decentralize functions and assets to government-owned companies led to the evolution in much of China's subnational sector of a parallel sphere of "off-budget" self-supporting, qua-

si-government activities. This "off-budget" sphere, relying on extra budgetary funds, has been especially important in the operation and financing of asset-heavy infrastructure investment. Legally precluded from borrowing using their own credits, subnational governments have resorted to a combination of bank lending and bond issues by the companies they own as a means of financing infrastructure.

Resorting to off-budget finance has been a mixed blessing. On the one hand, the techniques are legally penumbraed and operationally opaque, as the borrowing entities are not subject to regular oversight and reporting. On the other, subnational borrowers have gained early experience in the financial markets (albeit, in controlled ones) and at running commercial, fee-based operations. In the area of highway transportation, funds have been raised from a remarkable array of public and private sources, including the stock markets and foreign investors. The joint venture and asset-based financings are seen as models for self-liquidating projects.

Despite impressive growth, the Chinese financial markets continue to be both bank-dominated and restricted in scope, with few instruments and a limited large institutional investors. The credit markets are administered, with interest rates being set by the authorities, issuances allowed on a case-by-case basis, and credit decisions taken on other than economic grounds.

Establishing a local government bond market is being given special impetus because of the concerns about the Chinese banking system and how it will perform under the stress of impending international competition. Bank loans, a large proportion of which are to non-performing state-owned companies and are extended at concessionary rates, are seen as an increasingly undependable source of funds for infrastructure financing. Meanwhile, the small but growing Chinese bond market appears to offer a viable alternative to the rolling over of bank loans. Rationalizing and regularizing local government access to the long-term domestic bond markets is an important priority for both financing capital needs and broadening the nation's bond markets.

Over the past two decades, China has taken a deliberate path toward developing both a market economy and fiscal decentralization of its government. Its model of "market socialism" and the retention of centralized controls in the economy have given it a special status among developing nations. Despite (or, some argue, because of) its cautious approach and measured structural changes, it has enjoyed a sustained and rapid rate of economic growth that places it in a league enjoyed by few nations, namely post-war Japan and Korea. It was able to avoid the worst bumps of the Asian crisis and has maintained relative high levels of foreign investment into the early twenty-first century.[1]

Nonetheless, as the economy modernizes, urbanization continues, and the country opens to the rest of the world, China finds itself grappling with continuing issues of how to balance state control with responsiveness in meeting the needs of fast growing urban areas and a more prosperous citizenry. How subnational governments, which are charged with providing the bulk of services to the population and businesses, will respond to these challenges and meet the swiftly mounting demands for infrastructure is a critical part of the picture.

Government Structure and Decentralization

China is unusual in many ways, not the least of which is its multi-tiered governmental structure. A unitary state, its vast size and variety have led to a necessary looseness in its structure below the top. Beneath the national government, the subnational government administration is divided into four tiers: (i) provinces, regions, and municipalities that are directly under the central government; (ii) prefectures and cities under the provinces and regions; (iii) counties, county-level cities, and districts under prefectures and cities; (iv) towns and townships under (autonomous) counties. There are 31 provinces,[2] autonomous regions and municipalities directly under the central government; 333 prefectures and 695 cities (259 cities at prefecture level, 400 cities at county level); 2,074 counties; and over 40,000 towns and townships. Under and amid the layers are tucked hundreds of thousands of communes and settlements, products of the collective past that still bind people to their housing, jobs, and basic social services.

Fiscal Framework

As befits a sprawling nation of 1.3 billion people, China's fiscal system is highly decentralized. That was not always the case with taxation, and, un-

til recently, little spending discretion was given the local level.[3] However, the reforms of the last two decades have gradually loosened the structure. The Budget Law of 1992 gave substantial autonomy to the subnational units, but it is an autonomy that is constrained in a latticework of "nested" oversight. Each level of government has an independent budget that must be approved by the People's congress at that level but is subject to oversight by the next higher level. Accordingly, the National People's Congress approves only the central budget.[4] The central government determines the broad outline of the revenue sharing system, but it deals directly only with the provincial administrations that are immediately below it. Thus, although China has a unitary system of government, the dispersal of intergovernmental fiscal arrangements gives it a strong federal character.

Another dimension in Chinese subnational government that is critical to understanding its structure is the "horizontal characteristic" of local governments; these governments have corporate branches (companies) that operate off the budget. In addition, with a heritage of state ownership and control of business, there are other, less formal relationships that are important in understanding the complex economic and fiscal relationships at the subnational level.[5]

In 1994, China adopted tax reform, the centerpiece of which was the Tax Sharing System, where the central government and subnational governments have separate tax-collection powers over certain categories of taxes. This reform, which was followed by buoyant economic conditions, led to the rapid increase in tax revenues at both the central and subnational levels. However, due to the asymmetry between fiscal power and expenditure assignment, the ratio of subnational revenues to the total revenues has averaged around 50 percent, while the ratio of local fiscal expenditure to the total remained high at about 70 percent (table 22.1) Of the 70 percent of total public expenditure that takes place at the subnational level (provincial, prefecture, county and township), more than 55 percent is at subprovincial levels.

The fiscal gap between revenues and spending is mostly filled in the aggregate by transfers from the central government to the localities. However, the system is far from comprehensive in achieving balance; some local units run surpluses, while many others are in deficit. County and township governments, in particular, have faced huge fiscal deficits, partly financed by borrowings from state-owned commercial banks and government financial institutions (trust and investment companies). These deficits in the formal fiscal budget can be supplemented by deficits in local government

Table 22.1. Subnational Revenues and Expenditures, 1993 to 2001 (Yuan billion)

	1993	1994	1995	1996	1997	1998	1999	2000	2001
Subnational fiscal revenues	339.1	231.1	298.6	374.6	442.4	498.4	559.5	639.4	779.3
Total government revenues	78%	44%	48%	51%	51%	51%	49%	48%	48%
Subnational fiscal exps.	333.0	403.8	482.8	578.6	670.1	767.3	903.5	1036.5	1309.0
Total government expenditures	72%	70%	71%	73%	73%	71%	69%	65%	69%
Fiscal gap (revenues – expenditures)	6.1	–172.7	–184.3	–203.9	–227.7	–268.9	–344.0	–397.1	–529.7

Source: Kang 2002.

companies, further complicating the analysis and adding a dimension of contingent obligation to the equation.

Subnational Revenue Sources

Subnational tax revenues are a composite of both own-sources taxes over which the localities have power and those taxes that are administered by and shared with the central government *(*Kang 2002, Appendix 7). The composition of major local tax sources to subnational governments in 1999 was as follows:

- Business tax,[6] which is 100 percent local, accounted for 34 percent of the total local tax revenues.
- Value added tax, which is split between central (75 percent) and local (25 percent), accounted for 23 percent of the total.
- Enterprise income tax (EIT) on enterprises subordinated to the local governments (which was formerly only local but became shared in 2002), accounted for 13 percent of the total.
- Various taxes levied on properties, income, and activities that account for the remaining local tax revenues.[7]

As noted, the fiscal gap at the subnational level government level is filled by the transfer payment or internal revenue allotment from the central government,[8] which amounted to Y 518 billion in 2001.[9] The two major components of transfers are the rebate of shared taxes and ear-

marked grants for specific purposes. The tax rebates are origin-based and thus favor the richer cities and regions; these rebates represent about 50 percent of the payments received from the center. The earmarked grants, which are specific-purpose transfers paid out of central funds, have grown even more rapidly in importance. They amounted to approximately Y 256 billion or about 50 percent of all transfers in the 2001 budget (World Bank 2003b).

Three further caveats are appropriate in examining the revenue and expenditure balance. First, while the assignment of tax sources in the 1994 reform straightened out the revenue side of the equation, a similar redesign and sorting out of service responsibilities did not occur. China retains a system where social services such as education, health, and pensions that constitute the "social safety net" are both supplied and financed at the local level. So, too, are the major infrastructure activities of water, sewers, local roads, and electric power. Second, the revenues assigned to the local level only go down to the provincial level. Below that level, it is up to the provinces to design the sharing and/or assignment systems for the subordinate city and county units; similarly, the cities and counties do as they wish with the districts and townships. Not surprisingly, this latitude at the lower levels leads to vast differences in fiscal capacity and the nature and menu of the services provided.

Third, governments in China have concentrated on industry as a source of raising revenue, which harkens back to the country's collectivist history, where direct taxes were rare and the state supported itself by industry profits. A danger is that taxes can be subject to future cycles in manufacturing. However, in 1994 there was a move toward a much broader spectrum of taxes. Furthermore, when both budgetary and off-budget activities are considered the existing system has a broader, if not always transparent, revenue-raising capacity.

Extra Budget Revenues

The formal budgets of governments in China tell only half the local financing story. Local governments are highly dependent on extra-budgetary funds (EBFs), which nationally amount to 20 percent of GDP (about two-thirds of which accrue to local governments). These off-budget revenues finance local services, help bridge the gap between the revenue and expenditure, and are critical to financing infrastructure investments. Local

governments (including municipal districts and villages) enjoy near-autonomy in the imposition of EBFs. Despite the prevalence of fees and levies found in government budgets, conventional user charges (such as for water, sewage, garbage removal) are relatively underutilized.[10]

Given the historical dynamics of revenue sharing, local governments have had a powerful incentive to keep these funds off-budget. Central agencies, which have their own set of EBFs, have begun to implement measures to integrate EBFs into the budget.[11] Self-raised funds consist mainly of special fees, charges, taxes on enterprises that are owned by that government, leases of land, and profit distributions from local government owned businesses.[12] Also included are surtaxes and charges on enterprises within the government's jurisdiction. While the legal authority can be murky, these charges essentially are outside of the formal budget and rely on extra-legal means of collection and enforcement or, more simply, the operation of a market, where the company can have locational and political advantages.

There are differences of opinion regarding the probity and efficiency of EBFs. One view is that the off-budget activity is a marker along the road of the long march toward the market economy, since many industries and businesses are, in fact, products of the governmental system. Collecting charges for specific services and spending them locally is an application of the benefit principle and makes for a closer link between locally perceived needs and resources. It also keeps decisionmaking at the local level and makes it quicker and less subject to outside interference.

Offsetting these advantages are several disadvantages. There is little up-to-date information on EBFs, and their relationship to their local government owners is often opaque, sometimes apparently tied to personal and political relationships. Moreover, the charges, fees, and impact on profits represent a growing burden. It has been estimated that extra budgetary exactions eat up perhaps 50 percent of corporate profits in the country (Irwin 2002).

National leaders are concerned about EBFs and the cloudy fringe of local government-owned business. There is a desire to integrate EBFs back into the comprehensive state budget. However, if this rubric is applied to local owned enterprises, it could mark a step backward, a recentralization of the country's public finances and the center-based mandates. A compromise solution might be to formalize the EBF process and make assignment of duties to companies clearer, financial reporting and accounting consistent, and relationships more uniform throughout the country.[13]

Infrastructure Financing

China faces many issues in reforming its economy to be more market-based, strengthening and liberalizing its financial system, and ensuring adequate basic services. Improved infrastructure is a fundamental need and vital to China's continued economic development and social welfare. Although the country is still largely rural, there is increasing pressure to urbanize; the urban population grew from 17 to 33 percent of the total from 1980 to 2000. In addition to the problems of increasing density and resulting congestion, the growing household income demands more and improved urban services. The increased trade and communication connections both internally and globally depend on improved transportation services. Internally, it is still difficult to get goods to and from markets, which restricts growth in more remote areas.

Paradoxically, local governments are responsible for providing infrastructure, but the existing fiscal and financial systems allow few ways to assume that responsibility directly. Local governments are generally responsible for meeting the capital-intensive, lumpy-expenditure needs of environmental structures, roads, drainage, and power. With limited budgetary means, how they go about doing so varies dramatically. While local governments are not permitted to borrow on their own behalf, large amounts of local borrowing have been occurring through government-owned enterprises, project entities, and other channels that are able to operate "off budget." Project financing using foreign funds has also been a distinguishing feature and is especially important in the transportation area.

Infrastructure finance at the local level is arranged through the following avenues:

- Medium-term "policy" lending executed through the China Development Bank (CDB), which loans are funded through Policy Financial Bonds that it issues periodically. The "F" bonds have a 5- to 10-year maturity and carry an implicit central government guarantee.
- Commercial bank loans to government-owned entities that are medium-term (mostly 3- to 5-year) commercial loans.
- Use of on-budget and off-budget current revenues. Formal budgetary resources have played a declining role in infrastructure finance in recent years, as the activities of government-owned enterprises have blossomed.

- Various public-private arrangements (usually with local government-owned businesses) that range from concessions given private investors to joint ventures and build-own-operate schemes. In yet other cases, companies may borrow funds for purposes of *de facto* relending to the parent government.
- Donor-based on-lending activities that are channeled through government companies.

The above list reflects that Chinese infrastructure finance is an inherently complex area, one where the distinctions between the private and public sectors are blurred.

Local Borrowing Powers and Arrangements

Local governments are not allowed to borrow against their general revenues.[14] However, they may borrow for special projects indirectly either through asset-holding companies that they own or through a Special Purpose Vehicle (SPV). These are often named Urban Development and Investment Corporations at the municipal level and act on behalf of the local government in funding for infrastructure and other investments. Thus, while general-credit borrowing is prohibited, "special fund" borrowing—in the guise of locally owned enterprises—is practiced.

Some local governments evade the borrowing prohibition clause by setting up a special entity to effectively borrow for them by issuing corporate bonds. Such bonds are dubbed *transmuted bonds*. The issuing corporations have ties with the local authority, and bond proceeds are used, in turn, to lend to the local government or its affiliated government-owned company. Repayment of the bonds comes from the repayment of the underlying loans and, eventually, from the parent owner's fiscal funds. The marketplace and the Chinese Ministry of Finance view the debt as contingent liabilities of the parent local government unit (Kang 2002).

Getting a quantitative handle on the extent of this activity is a challenge, since these SPV units and companies neither exist as part of the formal governmental structure nor do they systematically and publicly report their financial results or conditions. Also, they can occupy a spectrum of business success, from enterprises that contribute to local revenues through taxes and the distribution of profits to fiscal sinkholes that require subsidies and soft loans to remain in existence.

There are concerns that the efforts to restructure the banking system in China will cut off bank lending to the off-budget enterprises and effectively to the many local governments that depend on them. Understanding the full extent of these government-company activities and figuring out a way to rationalize them is a leading challenge in Chinese subnational finance. Whether by rationalizing the use of the SUV and off-budget funds or permitting direct borrowing powers by on-budget local governments, there is a need to allow responsible and well-regulated borrowing at the subnational level.

Highway Finance

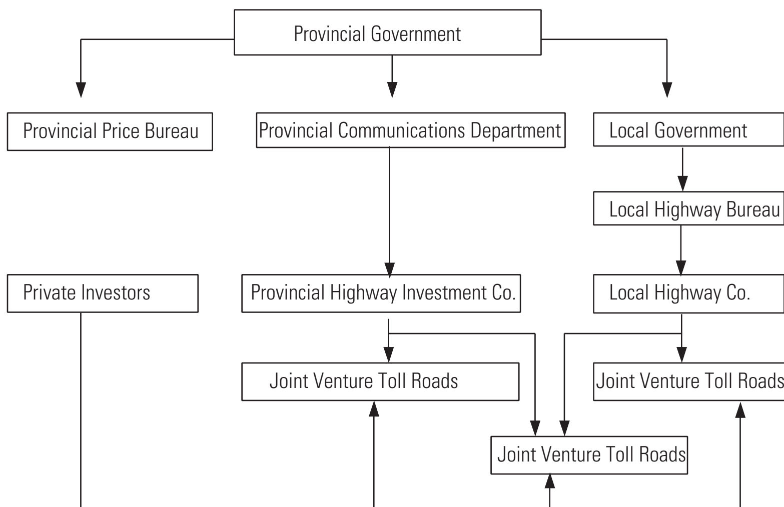
Highway finance in China illustrates both a major national effort in infrastructure spending and an ingenious blend of traditional and new funding sources, including access to foreign private capital and the domestic stock market. During the interval from 1996 to 2000, China invested Y 805 billion in highway construction, more than five times the total for the previous 15 years combined. The methods of project financing used for highways may hold promise for wider applications to other forms of infrastructure.

Highway construction in China historically has been supported by using combinations of government grants and loans and user charges. Major reliance has been on three user charges, the road maintenance fee (levied on commercial transports), the vehicle annual use fee, and the new vehicle purchase fee.[15] These three user fees represented, as of 1998, some $25 billion in revenues, or about 75 percent of the funds used for highway construction and meeting debt service costs. The use of tolls has grown rapidly in importance. Almost all high-grade highways, including new expressways, are toll facilities. In 1998, tolls generated $2 billion revenue annually and were expected to reach $20 billion by 2010. Tolling new high-use highways to generate revenues for amortizing the debt portion of finance is well established in China and perhaps a precedent to other self-supporting activities (World Bank 2003a).

The tolling mechanism and the established system of user charges have helped to attract private capital flows into highways, especially in the rapidly growing coastal areas, where private developers were awarded early concessions.[16] These capital flows into highway construction often come in the form of joint ventures, where the governments or their asset companies link up with foreign investors in projects to build and finance the improvements. The public-private projects are also generating securities in both the domestic and international securities markets.

Since 1990, over 80 joint venture projects (with provincial and municipal agencies, including Hong Kong developers) have been organized in 14 provinces. The total capital cost of these projects is estimated at Y 95 billion, of which Y 75 billion is from private sources. The public sector provides, under terms of a concession, land and highway facilities in need of rehabilitation and construction; external sources, such as the private sector and mainland agencies, provide the capital for reconstruction and expansion. The private investor almost always participates in operational activities with provincial partners and in toll collection facilities. The private partner takes a lead in the contribution of equity and in some cases makes shareholder loans to the project; the provincial and municipal agencies contribute their own funds, generally in the form of repayable equity or debt to the project. Figure 22.1 illustrates the typical relationship of public and private sector parties in a cooperative toll road joint venture.

Cooperative joint ventures are "cooperative" and "joint" and have featured a number of incentives to give foreign partners security in their investment over the period of the concession, which is most often 20 to 25



Source: World Bank 2003a.

Figure 22.1. Typical Cooperative Joint Venture Arrangement for Expressway Development

years. These incentives include minimum profit guarantees, guaranteed repayment of capital, tax incentives, exchange loss protection, and preferential loan repayment.

Provincial governments have turned increasingly to asset-backed financing for new high-grade toll highway projects, using toll revenues of the existing highways as security to raise new debt and equity.[17] The preferred method of financing highways is through expressway companies, which is a form of joint venture, with the provincial governments providing equity and private participants providing a mixture of equity (with stock offered on the Hong Kong or Shenzhen stock exchange) and debt.[18]

Share prices of the expressway companies listed in Hong Kong appreciated initially. In the years subsequent to the Asian financial crisis, and as a result of the large number of new entries to the Hong Kong market by provinces with interest in highway asset securitization, share prices fell sharply and investors became cautious. In response, Chinese authorities have directed more shareholding companies to the A and B share markets located in Shenzhen in order to attract local investors. International investors have access to the B share market in Shenzhen. To expand the investor base, one company (Zhejiang Expressway Company) applied to Britain's listing authority to have its H shares traded on the London Stock Exchange (World Bank 2003b).

The Financial Sector

Before 1979, China's financial system functioned as a mono-banking regime. Characteristically of a centrally managed system, China's financial sector was "repressed," that is, markets were not allowed to function (they in fact were banned), interest rates were kept below market rates, and exchange was cleared at official rates that did not reflect the market. In the 1980s, the country began sweeping economic reforms geared toward more decentralized economic management and a market-driven, albeit socialist, economy. As part of the package, Chinese authorities wished to replicate the western financial system, complete with diversified financial intermediaries, a competitive financial market structure, and an effective regulatory and supervisory framework (Xu 2002). China has approached reform by using an "empirical gradualism" based on "laboratory experiments," in which reform policies were paced, tested first in selected sectors and widely adopted only if experiments confirmed that the policies were viable (Wei 2000 p. 31).

Restructuring the financial sector involved reorganizing the existing banking institutions and creating new financial intermediaries. The job was huge. It required the following:

- Transforming the interest-free and non-repayable grants into interest-bearing bank credits, promoting self-finance, and attracting foreign capital.
- Restructuring the mono-bank system into a two-tier banking system to separate central banking and commercial banking.
- Developing financial instruments and markets, including money, bonds, and the stock market.
- Creating a legal and institutional framework for the financial sector and financial supervision (Wei 2000).

Banking System

Before the reform of 1979, the People's Bank of China (PBC) was the sole financial institution in the Chinese planned economy and market-based financial activities were banned. With a plan to transform the PBC into a central bank, the State Council dispersed the commercial banking activities, once operated by the PBC, to four "specialized banks" (Xu 1998, pp. 19–20). China's banks and financial institutions now are sorted into the following groups:

- Four state-owned banks, formally known as four "specialized banks": the Agricultural Bank of China (ABC), the Industrial and Commercial Bank of China (ICBC), the Bank of China (BOC), and the People's Construction Bank of China (PCBC).
- Two "policy" banks.
- Share ownership commercial banks.
- Urban co-operative banks.
- International trust and investment corporations.

Comparing deposits to GDP, China's banking system is one of the world's largest; the unusually high ratio of bank assets to GDP (130 percent) is a reflection of both China's high savings rate and the lack of alternative uses of those savings. However, China's capacity to handle forthcoming foreign competition, which will be rapidly arriving with its entry into the WTO, is providing the country's banking system with major immediate problems.[19]

China's banking system, which dominates the financial landscape, presents a large number of structural and operational problems. The central bank, the PBC, is not independent. The State Council still sets monetary and exchange rate policy, although both policies are supposed to be the province of the PBC. Decisions are made on political grounds by government authorities at various levels, and the freedom to choose among loan opportunities is limited. Although price controls have largely been removed, government authorities instead of market mechanisms still command the interest rates on bank deposits and loans. Generally, the banks are unprofitable operations; the rate of return on assets of China's four largest state-owned banks has been low and falling. There have been lapses in the supervision of financial sector operations, which became problematic during the 1990s.[20]

Perhaps the most intractable problem in China's banking system is a huge amount of bad loans. The non-performing loans (NPL) continue to grow, with NPLs estimated at about 24 percent of bank footings. These are largely a result of bank lending to unproductive State Owned Enterprises (SOE) and the banks' generally unprofitable operations. Government control of credit allocation and influence in bank lending decisions have meant that the SOEs received about 70 percent of total bank loans at subsidized interest rates (Li-Gang 2002). This would not be a problem had the SOEs not incurred large losses and been so highly indebted. Much of the lending was heedless: debt-to-equity ratios rose quickly from 19 percent in 1980 to 79 percent in 1994 (Huang 1998, p. 6). At the same time, most of these troubled SOEs kept their businesses running by means of state bank loans or government subsidies.

According to some observers, SOE managers and employees had no motivation to reform; they felt no pressure to repay the bank loans because both banks and enterprises are owned by the state (Huang 1998). Reforming the Chinese state-owned enterprise system has proceeded slowly and the banks have acted as buffers in the process. Since China lacks "social safety nets," a rapid push on SOE reform could raise unemployment rates and trigger unrest. Ultimately, the SOEs must be restructured, either through imposing hard-budget constraints, downsizing, or outright closure.

Capital Markets

Besides the formation of the two-tiered banking system, creating financial markets was a key objective in reform. However, this reform proved slow in arriving, as China seemed less than committed to having financial markets

as alternative means of financial intermediation. In the early 1990s, the securities markets emerged with the institution of the Shanghai and Shenzhen securities exchanges. China's stock market is now the second largest in Asia, second only to that of Japan. The Shanghai stock market and its smaller counterpart in Shenzhen have 1,200 listings and a market capitalization of approximately $500 billion. As was noted, the domestic stock market is of special interest to local government finance in China because of the recourse made to it by government-owned companies. This has been particularly the case with highway transportation and expressway companies.

On the other hand, the size of the Chinese domestic bond market is small compared to the bank loans and equity markets (table 22.3). Outstanding bond debt in 2000 was equal to 25 percent of GDP (corporate and government), while bank credit equaled 133 percent of GDP. Equity market capitalization has soared to 53 percent of GDP.

Bond Market

The potential domestic bond investor base is already large, although options are restricted largely to either bank savings accounts or government bonds. The average national savings rate has been around 35 percent and reached Y 8 trillion in 2002. Major institutional investors in bonds are security investment funds, insurance funds, social security funds, and commercial banks (which, however, are prohibited from buying corporate bonds). Individuals hold Y 0.8 trillion worth of bonds.

Despite the market's growth, channels for investment continue to be limited. Corporate bonds are viewed as risky, as are common stocks (80 percent of which are shares in state-owned companies). Governments may want to privatize their company equity holdings but they must sell their

Table 22.3. Market Capitalization, Bonds, and Domestic Bank Credit as Percentages of GDP: 1995–2000

Item/Year :	1995	2000
Stock Market Capitalization	5.9%	53.8%
Corporate Bonds*/	4.0	9.2
Government Bonds	5.6	5.3
Domestic Credit	91.1	132.7

*/ Includes government-owned institutions and enterprises.
Source: Shiria 2002.

ownership, which would depress stock market prices. Thus, slow liquidation of ownership, to the extent that it takes place, seems to be in order (Shiria 2002).

There are three major types of bonds (table 22.4):

- *Treasury bonds or T-Bonds:* Two thirds of outstanding debt in China is the state Treasury bonds of various types with maturity of 6 months to 30 years, with largest amount being in the 3- to 5-year range.[21]
- *Financial bonds or F-bonds:* These account for one third of outstanding debt and are from China's policy banks, the China Development Bank (CBD) and Export-Import bank of China. These support infrastructure projects or are used to develop strategic industries. CBD accounts for 95 percent of the F-bond issuance with maturity of 6 months to 30 years.[22] The F-bonds are considered to be quasi-government bonds and carry an implicit guarantee.
- *Corporate bonds:* These account for only 4 percent of the outstanding bonds and consist of central corporate bonds issued by enterprises owned by the central government (such as CITIC, State Power, and Three Gorges), local corporate bonds issued by enterprises owned at the local level, and corporate short-term bonds. The usual maturity of central corporate and local corporate bonds is 3 to 5 years, although there have been 8-year issues.

The issuance of corporate bonds is governed by strict procedures, which in part explains the small market share. For issuance of larger than Y 100 million (about US$12 million), corporate bond issues can seek CSRC approval for stock exchange listings.

Table 22.4. Outstanding Domestic Bonds and Issuance in 2001 (Yuan billion)

	Outstanding	Percentage	New Issues	Percentage
T-Bond	1,561.8	62.1	488.4	64.2
Policy F-Bond	853.4	33.9	259.0	33.9
Corporate Bond	100.9	4.0	14.7	1.9
Total	2,561.1	100.0	762.1	100.0

Source: Shirai 2002.

Credit Quality and Ratings

The stock exchanges require that all listed debt securities be at least A-rated by the domestic credit rating agencies. Given the competition to meet minimum rating mandates and a lack of industry standardization, however, most corporate issues can get a minimum of single-A rating. The practice of credit rating in China started in 1987, but most rating agencies remain poorly managed and underfunded. A rating may be given at the time of a new offering, but maintenance research is not supported by secondary market activities, nor does the market in pricing seem to acknowledge the value of credit rating. Two services in China providing more credible opinions service in the nascent market include China Chengxin (which is owned 30 percent by Fitch Ratings and 10 percent by the IFC) and Dagong International (which is a joint venture with Moody's).

Interest rates are administered and coupons are capped at 1.4 times the rate of savings deposits of the same term, but they are lower than the rates on bank loans. All bonds are issued at interest rates dictated by the PBC, which takes into account macroeconomic conditions but does not distinguish by credit risk or allow the market to price to reflect the risk. All bond issues must be approved on a case-by-case basis by the State Development Planning Commission (SDPC) and, depending on the sector that is borrowing, by other national level institutions.

Municipal Bonds: Today and Tomorrow

China has limited experience with municipal bonds, including a brief surge of municipal bond issuance in the early 1990s that led to a number of defaults or near-defaults by the issuers. This led to imposition of the tight regulatory controls on municipal bonds that amounted to their being outlawed. Under the twenty-eighth provision of the 1995 Budgetary Law: "Budgets of all local government units should be {balanced} and, without the exceptional permission from the law or the State Council, no local government should issue bonds."[23]

Existing "municipal" bonds are seen as a subset of the corporate market and are now those bonds that are issued by SPVs and local government-owned companies. They are bought on the reputation of the issuer and an implied guarantee that the municipality will not let the issuer fail. There appears to be little market scrutiny of underlying financial conditions and little information upon which to base such judgment. The risk

is seen as ultimately transferred back to the owner government. The Shanghai Urban Development Investment Corporation (UDIC), a company owned by the City of Shanghai, has issued bonds to help finance infrastructure investments primarily in the transport area. Many other localities have issued bonds through SPVs and their companies, using the corporate bond model.

Given the existing regulatory framework, the regulations on bond issuance that appear most pertinent to issuances by local governments are as follows (World Bank 2003b):

- Local government bonds may only be issued by asset-owning companies and the local governments have divorced asset ownership from service delivery (by use of SPV) to meet this requirement.
- Bonds must be issued with the guarantee of a third-party asset-owning company or financial enterprise, which local governments have configured themselves to do.
- A borrower must have three years of profitable operation, which is an impediment to new start-ups.
- Cumulative outstanding bonds may not exceed 40 percent of the issuing institution's assets.
- Bonds may not exceed 30 percent of project cost.

The above restrictions favor older state-owned companies that have assets to which some value can be affixed. To meet the requirements, local governments create companies and economic vehicles that can take ownership of assets. After seasoning, projects then are headed to the stock or bond markets, if permission is received.

Whatever the limitations and impediments, using the domestic bond markets is critical for large-scale infrastructure projects. As a practical matter, governmental units or companies entering into three-year bank loans have little revenue to pay off loans and are forced to roll over their bank debt, which exposes them to short-term rate fluctuations. Moreover, the impending WTO agreements on financial systems, entailing international competition and standards for the domestic financial sector, will force state-owned banks to be stricter in the terms of loans and will expose their weakness as large amounts of short-term loans being renewed will not be able to be paid since consumers cannot pay tariffs required to repay three-year loans. All these considerations point to the importance of recourse to the bond markets and less dependence on the state-owned banks.

A representative of the Chinese Ministry of Finance has observed the need for a municipal bond market and made recommendations on how that might come about and what it would look like in China. Responsible subnational borrowers could be fit into a framework of controlled issuances, which essentially involves selectively relaxing the prohibition for qualifying borrowers. These issuances would be self-liquidating (revenue bonds), and the credit quality would fit between that of the riskless sovereign debt and riskier corporate debt. Characteristic of the Chinese approach, the municipal bond market would open slowly and selectively (Kang 2002).

An issue in formulating a municipal bond market is the quality of financial management and transparency. The Chinese central government has committed to budgetary reforms, and some significant progress has been made strengthening the public expenditure management system. A detailed Government Financial System has been designed to provide a system for the preparation and execution of the government budget at both central and provincial levels. The financial system was effectively adopted and became effective in fiscal 2002. Modernized procedures for payment processing and accounting have been adopted. The design of a government financial management information system is being piloted in ministries and some provinces. Local levels have adopted "zero-based" budgeting approaches to better prioritize the use of available resources, decrease the importance of EBFs by converting fees and charges into regular taxes, and bring the funds into fiscal accounts. Obviously, some subnational borrowers will achieve improved management and transparency earlier, and it is likely to be these (or their companies and projects) that achieve early bond market entry. In fact, the promise of such entry can hasten the reforms.

Shanghai: Bond Financing Environmental Improvements

Movement toward a more formal, regularized, and transparent municipal bond market in China requires pioneer issuers of size and stature. The City of Shanghai may fill that role. The World Bank has been working with the City on a large-scale environmental financing program. Shanghai municipality is one of four cities in China that have provincial-level status. It has a registered population of 14 million urban dwellers with another 3 million in temporary residents. An important industrial and trade center, it accounts for about 1 percent of the nation's population and 5 percent of its GDP. However, there are pressing needs to improve urban service delivery,

notably on water and sanitation. Only about 11 percent of the sewerage flow receives secondary treatment; the quality of the surface-drawn drinking water is rapidly deteriorating, and the municipality has severe solid waste disposal problems (World Bank 2003a).

The need for environmental improvements and their large geographic scope have led the city to consider a region-wide approach to water pollution problems and, in particular, the use of an on-lending facility by the central city unit to assist the suburban units in meeting their share of the improvements. Use of the Shanghai UDIC to bring together several of its suburban areas into a joint financing program is now a priority. Over the next 5 years, UDIC will need to finance some $4.85 billion in improvements. Capital budgets indicate that the municipality can provide perhaps $3.5 billion, which leaves a gap of over $1 billion to be financed. The desire is to tap the domestic bond markets to do this.

Shanghai city's investment activities have previously used bonds for transportation, hotel investments, and manufacturing, the debt having been issued by UDIC. The current proposal is for UDIC to have an environmental subsidiary, the Shanghai Water Assets Operation and Development Company (SWOAD), to issue bonds. The added need is seen for a district-wide financing vehicle that will permit the city and suburbs, the region, to enter into a financing plan. Arranging for adequate security for on-lent funds in view of the constraints on formal budgets is a challenge.

The World Bank's endeavors to assist the Shanghai area are also aimed at supporting continuing financial sector reform and expanding the capacity of the markets to finance long-term improvements. The effort is in pushing ahead the creation of a municipal bond market to free the project needs from dependency on short-term bank loans, to tap into long-term savings, and to enliven the non-governmental long-term bond market, making it a more viable long-term lender.

Notes

1. See Rodrick (2003) on the distinctive Chinese economic approach. Due to efficiency gains, high rates of savings and investment, buoyant export growth and foreign direct investment, and a vast supply of semi-skilled labor, the People's Republic of China's growth has been outstanding. Between 1978 and 2000 it averaged more than an 8 percent growth rate in GDP, one of the highest sustained growth rates in the twentieth century, matched only by Japan and Korea (Li-Gang 2002, p. 10).

2. Includes 22 provinces, 5 Autonomous Regions, and 4 Municipalities: Beijing, Shanghai, Tianjin, and Chongquing. Some provinces are larger than most nations: Guangdong Province has 70 million people and Henan has 93 million.

3. Under the centrally planned economy (1957 to 1979), taxes were industry-centered, and the value-added was simply tapped by the state at the industry level and surpluses used to cover government costs. Tax administration was simple. Taxes were paid by the state-owned enterprises (SOE) and with planned output, mandated sales, and fixed prices, surpluses were easy to determine. See World Bank 2002, p. 7.

4. The intergovernmental fiscal system has gone through many changes. The fiscal-decentralization reforms beginning in the 1980s led to declines in both the ratio of total fiscal revenues to the GDP and that of central government fiscal revenues to the country's total fiscal revenues. To correct the decline, measures were taken to direct a large lump of tax revenues to the central level and more fiscal spending responsibilities were devolved to the local level.

5. There is the added parallel relationship of the Communist party that is present at each level of government. There are also what are known as the "off-off-budget" companies that are run by officials in an unofficial capacity but that rely on governmental contacts and informal channels. See Irwin 2000.

6. A gross receipts tax falling mainly on service sectors not covered by the value added tax; rates range from 3 percent to 20 percent.

7. The "property" tax on urban land use and rural land occupancy generates only 2 percent of local own-source revenues (Kang 2002, p. 9).

8. The central government collects 50 to 55 percent of total revenues and accounts for about 30 percent of direct expenditures; the rest is transferred to local governments.

9. The Chinese currency, Renmindi, is denominate in Yuan (Y). In 2002, US$1 equaled Y 8.3.

10. This is due to regulatory constraints that have kept fees that appear in budgets well below cost-recovery levels.

11. In 1999, the Ministry of Finance began to formulate organizational budgets that show all budgetary, extra-budgetary, and other resources and spending for each ministry, starting with four national Ministries (Education, Science and Technology, Labor and Social Security, and Agriculture). In 2000, the list was extended to 26 agencies.

12. See Wong (1999) for an analysis of EBFs and their role in transitioning economies.

13. The recognized EBFs are but part of the problem. According to Irwin 2000 (p. 169), “off-off-budget” represents another layer, which often amounts to arm-twisting to get businesses to pay up and may require extra-legal mandatory loans that may or may not be repaid. These “second generation” or “off–off-budget” activities may equal up to 25 percent of a government’s formal budget in some cases.

14. Budgetary Law in 1995 (28th provision) prohibits local government from issuing bonds. Furthermore, debt that is owned or guaranteed by the local government is illegal and invalid.

15. The National People’s Congress approved a fuel tax in October 1999 to replace the fees, but the fuel tax has not been implemented (sharing between the central government and provincial governments has not been decided).

16. It appears that much of the cream has been taken of the toll road market in China. With the most “profitable” opportunities already built or committed, remaining roads will require mixed private/public financing if private sector finance is to be attracted (World Bank 2003a).

17. Once the tolled expressways mature and traffic levels are reached, provinces usually attempt to refinance these segments through the formulation of listed expressway companies and a stock offering.

18. Eight provincial expressway companies have raised the equivalent of $1.6 billion in equity capital through 2002 for the rehabilitation and expansion of the highways (World Bank 2003b).

19. Under the WTO agreements, by 2005 China is to meet a series of requirements to open its banking system and financial markets to international competition.

20. In 1993 and 1996, China’s financial sector was disrupted as the country’s banks and non-bank financial institutions were subject to illegal speculation in both stock and real estate markets. This disruption was caused by the Chinese banking supervisors failing to inspect banks’ lending policies; consequently, it triggered two large Chinese financial institutions going into bankruptcy (Wei 2000, p. 7).

21. The Ministry of Finance issued its first 10-year issue in 1999, followed by fixed-rate 15- and 20-year issues in 2001, and fixed rate 30-year issue in 2002. In January–October 2002, 12 T-bonds were issued in the aggregate amount of Y 282 billion, in 3–5 years and for bonds with 10- to 30-year maturity. Coupon rates were set at 1.9 percent (2-year issued in May) to 2.9 percent (30-year issued in May) (see World Bank 2003b).

22. In January through October 2002, 15 "F-bonds" were issued by CDB in the aggregate amount of Y 195 billion. Coupon rates were set at 2.15 percent (10-year issued in June) to 4.5 percent (30-year issued in March).

23. Kang 2002, p. 13.