

**THE URBAN DEVELOPMENT
INVESTMENT CORPORATIONS
(UDICs)
IN CHONGQING, CHINA**

Technical Assistance Report

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EXECUTIVE SUMMARY ⁱ

UDICs in China

Urban Development Investment Corporations (UDICs) have over the years become the central pillar in the local government drive to build infrastructure in China, where local governments are not allowed to engage in direct market borrowing. UDICs were established during the early 1990s when local governments were under great pressure to both build municipal infrastructure and to reform the role of the government in infrastructure development. The UDIC model provided the local governments with a corporate government structure to borrow from the market and quickly develop infrastructure. They are treated as municipal corporations under the Company Law of the Peoples' Republic of China (PRC). The law does not clarify the relationship between UDICs and the local government, including the limits of the financial liability of the local governments vis-à-vis UDICs. The common functions of UDICs include the following:

- *Financing platform.* UDICs raise funds for urban infrastructure development from multiple channels. They provide borrowed money to infrastructure projects through on-lending or direct investments.
- *Public sector investor.* UDICs operate as authorized investment agents of the municipal government or state-owned asset administration authorities. UDICs operate and manage the assets within their authorized scope and are responsible for maintaining the value of the asset and protecting the interests of the government.
- *Land development agent.* Many UDICs conduct up-front development and management of land allocated by local government in urban planning areas.
- *Project sponsor/owner.* UDICs sponsor and own priority urban infrastructure projects. In this respect, UDICs are responsible for investment, construction, management, and operation of projects.

It is estimated that there are approximately 360 established UDICs in the country with varying operational models and reporting structures. An estimated 70 percent of the UDICs are under the direct control of the municipal governments, while in other cases the UDIC may report to the department of construction, local asset management department, or the local department of reform and development. The UDICs are growing rapidly in Eastern China. In some provinces they exist even at the county and prefecture level, while in the relatively underdeveloped Mid-west there are some provinces that are still in the process of planning their very first UDIC.

This Technical Assistance Report (TAR) was prepared by the World Bank team which included Mr. Kamran Khan (Team Leader), Ms. Xiaofeng Li, Mr. William Dachs, and Mr. Shiqing Xie. The Credit Analysis of Chongqing Expressway Development Corporation (CEDC) in Chapter 5 was prepared entirely by Standard and Poor's under contract with the World Bank.

National Policy and UDIC Development

The creation of UDICs in China was based on the early 1990s national strategy to *marketize* the infrastructure development function of the local governments into specialized corporate entities or municipal corporations. Since its inception, the *marketization* strategy has interacted with various other national policies which have profoundly affected the development of UDICs.

The table below lists the most important policy and incentives that have resulted in continued market borrowing by the UDICs even when the UDICs have access to increasingly limited revenues to service their debt.

Policy incentives for UDIC market borrowing			
Growth driver	Early 1990s	Current status	Comments/affect on UDICs
Incentive structure for local government leaders	Strong support	Strong support	Development of infrastructure remains a key indicator of local government success, and UDICs are one of the few channels available to local government for raising capital for infrastructure development.
Fiscal policy and local government share of revenues	Strong support	Weak support	Steady decline in local government share, starting with the tax reforms of 1994.
Revenue generation authority of local government	Strong support	Weak support	Steady decline in local government authority to establish new charges and/or increase local fee and charges; limits on local off-budget revenue sources.
Financial market/banking sector reforms	Strong support	Moderate support	Credit-based lending is still not the norm, and loan tenure is increasing; however, UDICs have to deal with less convenient rollover terms and higher rates.

The current Government of China (GOC) policy appears to be to gradually steer the UDICs toward a model in which they can operate as independent entities undertaking borrowing based on their own creditworthiness to develop infrastructure with increasingly more private sector involvement. The views of the central government agencies, however, have not been officially or publicly articulated in a comprehensive manner. The policy trends described in the previous table indicate that critical actions are required at the UDIC, local government, and central government level to steer the development of the UDICs in the appropriate direction.

The Chongqing UDIC Model

The development of Chongqing is a high priority for the GOC because of the city's unique history and strategic location in Western China. Chongqing has achieved impressive growth, with an average gross domestic product (GDP) growth rate of 11 percent from 2001 to 2006. The development of infrastructure has been a key priority of

the Chongqing Municipal Government (CMG). The investment in infrastructure during 2001 to 2006 has increased from renminbi (RMB) 80 billion to RMB 247 billion, an increase of more than 200 percent. The scope of infrastructure investment is expected to further increase under Chongqing's 11th Five-Year Plan. Chongqing is also ahead of most Chinese cities in terms of UDIC reforms. The "Chongqing UDIC Model" involves eight UDICs organized along sector and functional responsibilities, with separate financial accounts and management teams. The CMG has reorganized the UDICs according to the following three strategic objectives:

- UDICs should implement new generation *marketization* reforms that establish clear operational and financial responsibilities.
- UDICs should establish sound financing platforms that can be used for innovative financing as well as partnership with the private sector.
- UDICs must focus on risk management, particularly financial risk management.

The CMG UDIC strategy depends upon the success of measures to undertake institutional development of the UDICs. The CMG is particularly concerned about UDIC operations vis-à-vis capital mobilization; capital structure and leverage; financial management (FM); and corporate governance, disclosure, and reporting structure. The World Bank (WB) was invited by the CMG—with the endorsement of Ministry of Finance (MOF) and the National Development and Reform Commission (NDRC)—to assist the CMG in developing a framework for the institutional development of UDICs in Chongqing.

Organization and Supervision of the UDICs in Chongqing

The CMG oversight of UDICs consists of asset supervision and sector administration. As the designated state asset investor/owner, the Chongqing State Asset Administration & Supervision Commission (CSASAC) is the primary supervisor, while the sector-specific agencies provide technical and operational supervision functions. However, there appear, to be some overlap between the roles of the CSASAC and the technical supervision agencies, such as the Chongqing Communications Commission (CCC), which often help to arrange financing for UDIC projects through direct support or on-lending arrangements.

The review of the organization and supervision framework for UDICs in Chongqing indicated that the technical capacity of UDICs is generally high, and they appear to possess valuable infrastructure assets. The UDICs, however, by and large continue to operate as "construction companies" as opposed to "operating companies," which makes it difficult for them to generate cash flows from their existing assets.

The supervision and control measures are detailed and reflect a culture that is in line with the supervision of city departments rather than the oversight of independent, professionally managed subsidiaries of the government. The controls emphasize compliance with externally imposed regulations that are not necessarily suited to the unique characteristics of each UDIC, rather than a means by which performance is measured and monitored strategically against growth and efficiency targets. This is most obvious in the area of budgeting, where the operating budgets are supervised carefully,

while the more strategic, longer-term capital budget is by and large reduced to a project-by-project financing exercise. This can be attributed to lack of capacity for strategic planning and management as well as the inherent lack of clarity in UDIC mandates, and the limited control UDIC managements have over their operational targets and investment plans.

The UDIC assets are not marked to market on the financial statements, and UDIC borrowing is generally based on direct or indirect CMG budget support. There are multiple financing support channels made available to the UDICs to help them raise the necessary capital to complete CMG-sponsored projects, but the revenue sources available to them to service the debt remain limited. Financing is obtained on a project-by-project basis with limited regard to the strength of the UDIC balance sheet, often accompanied by indirect support of the technical commissions and bureaus.

UDIC Case Study—Credit Analysis of the CEDC

The development-stage credit analysis and Financial Accountability and Capability Evaluation (FACE) of the Chongqing Expressway Development Company (CEDC) was conducted by the international rating agency Standard and Poor's (S&P) to provide a market-based assessment of the strengths and weaknesses of CEDC vis-à-vis its ability to borrow from the market based on the strength of its corporate financial position. The analysis was conducted by S&P on behalf of the WB, with the collaboration and cooperation of the Chongqing Finance Bureau (CFB), CSASAC, and the CEDC. The S&P analysis and all the related comments and observations contained in this report are strictly for development purposes; i.e., the S&P analysis presented is not for the consumption of potential investors interested in lending to or partnering with CEDC. The S&P ratings given to CEDC have been removed to underscore the "development stage" nature of the credit analysis exercise.

The CEDC was selected in collaboration with CFB and MOF to review the standard UDIC supervision structure, establish better credit analysis benchmarks, and reward a high-performing, reform-minded UDIC with technical assistance. The CEDC is responsible for constructing, operating, maintaining, and financing all expressways in Chongqing. With registered capital of RMB 2 billion and assets of RMB 50 billion, the CEDC is a large-scale, state-owned enterprise (SOE) with 4,669 employees, headed by a general manager who is appointed by a board of directors.

The analysis of CEDC by S&P noted that the CEDC operates under " ... significant operational and financial pressure ... as a result of its inflexible capital expansion plan, pricing restrictions by regulator, high traffic-volume risk, high financial leverage appetite, and weak liquidity position. These weaknesses are balanced by CEDC's good construction management track record and strong governmental ongoing support, operationally and financially. Major weaknesses of CEDC's FM include underdeveloped liquidity management practices and debt management framework, and a lack of medium-term focus on financial planning."

The comparison of CEDC with the South African National Roads Agency Limited (SANRAL)—a publicly owned enterprise with a profile and mandate similar to CEDC and an investment-grade credit rating – provided further evidence of the key structural problems that appear to be responsible for the financial weakness of the CEDC. While the technical capacity, as well as the quality and perceived value of the infrastructure assets of the two companies, appear to be fairly comparable, the credit rating of SANRAL is superior to that of CEDC primarily because SANRAL operates under a transparent and consistent operational scope and charter that is codified into law. The government is required by law to provide funding through the budget for any activities it wants SANRAL to finance that are outside the mandate. Additionally, the functions are separated between toll and non-toll-road networks with, very importantly, clear standards for defining toll roads and non-toll roads to ensure that the nonoperational projects (which are not financially viable) cannot be transferred to SANRAL without appropriate budget support. Finally, advanced and transparent corporate governance systems provide clear rules of engagement between SANRAL and the government to ensure that both the SANRAL management team and the government are accountable for their performance.

Recommendations

The recommendations regarding institutional development for UDICs in Chongqing can be segmented into three elements which must be pursued simultaneously.

Institutional Development of UDICs		
Element I	Element II	Element III
Enhanced “Marketization” of Infrastructure Development	Transition to an Operating Company Model	Adoption of Credit-Based Borrowing Practices

Element I—Enhanced *Marketization* of Infrastructure Development

1. Review, realign, revise, and reestablish operational mandates of UDICs.
 - a. Conduct a detailed review of the mandates of all UDICs and identify their operations as (i) operational,¹ (ii) quasi-operational, and (iii) nonoperational, and establish a methodology for defining “operational” projects.
 - b. Establish a system for assigning realistic budget assignments for quasi-operational and nonoperational functions to make them financially viable.
 - c. Match investment responsibilities with financing sources to ensure that UDICs only borrow from the market for projects that can generate the cash flow to pay back the interest and principal associated with the borrowing.
 - d. Revise the operational mandate according to a, b, and c above, and preferably codify it into law to provide transparency, permanency, and predictability.
 - e. Establish corporate governance structure to ensure the appropriate level of accountability vis-à-vis the performance of the UDICs as well as the government.

2. Conduct financial assessments to mitigate risk and establish credit-based UDIC borrowing.
 - a. Conduct a confidential financial assessment of all UDICs to determine the true status of their financial position and obtain a better picture of the financial risk associated with each UDIC. The assessment can be done on a confidential basis.
 - b. Undertake measures to resolve any problems that might exist to ensure that the situation does not deteriorate further.
 - c. Put in place oversight structures to prevent the problem(s) from reoccurring.
 - d. Select UDICs for credit-based borrowing on a pilot basis. The process could involve a development-stage credit rating, followed by steps to improve the credit rating via strategic advice and assistance in key areas, including optimal asset utilization, strategic planning, and financial engineering and structuring.

3. Increase private sector participation.

The process of *marketization* of infrastructure development should continue, with increased involvement of the private sector in the financing, as well as in operations. The problems associated with a lack of qualified private-sector players may be overcome by possibly working with interested international firms on innovative pilot projects.

Element II—Transition to an Operating Company Model

1. Establish and improve internal controls. The corporate governance systems proposed under Element I will require more strategic controls that are based on performance benchmarks, accountability vis-à-vis the overall program, and transparent reporting systems.
2. Implement comprehensive budgeting. Establishment of a reliable, comprehensive budgeting process both for capital and operational expenditures will not only instill financial and operational discipline in the UDICs, it will also strengthen the revised operational scope and mandate of UDIC.
3. Improve risk management systems. The improvement in risk management systems of UDICs may be addressed through adopting risk registers or similar tools that can guide continuing assessment of current risks and identify new risks.
4. Improve management information systems (MIS). The UDICs do not have modern MIS, including financial and project management software. Both the lack of and poor quality of information makes it difficult for UDIC management to make timely and well-informed decisions, particularly insofar as they relate to strategic planning. It is important to be realistic about the cost and benefits of upgrading MIS; however, the UDICs should at least be able to use improved software that is widely available in China today.
5. Increase focus on asset management. Increased focus on the optimal utilization of current assets is a key element of the necessary transition to an operational company model. It is recommended that UDICs implement an asset management database that sets out all assets, both fixed and intangible (usage rights), with a framework for using these

rights and the means by which they will be put to market bidding where and when appropriate. All assets should have possible values ascribed to them with forecasts of future values based on user demand and other variables.

Element III—Adoption of Credit-Based Borrowing Practices

1. Implement FM and treasury functions. The UDICs should consider implementing liquidity management practices and a debt management framework within an outsourced treasury function environment until such time as internal systems in the UDICs are capable of these controls.

2. Streamline financial assistance and on-lending by the CMG. The UDICs currently receive direct and indirect CMG support in arranging the financing for projects through a variety of channels. These arrangements allow the projects to be financed, but they result in the UDICs agreeing to take on the responsibility of repaying loans that they are often not able to qualify for or safely service based on their own cash flows. A clear system for financing quasi-operational projects should be established that allows the CMG to provide budget support to make projects “operational” without undermining the financial viability of the involved UDIC. Importantly, it is recommended that CMG assistance should be either provided to the UDIC as registered capital (equity) or provided directly to the project (as opposed to on-lending it through the UDICs) to reduce the project cost.

3. Conduct comprehensive financial assessment of UDICs. It is important for the CMG to take stock of the financial position of UDICs to understand the extent of the possible financial distress, and put in place appropriate borrowing limits for each UDIC.

4. Establish financial performance benchmarks. It is important for the CMG to start developing qualitative and quantitative benchmarks for the financial performance of UDICs. The key qualitative and quantitative benchmarks established are summarized below; repeat exercises with many UDICs will eventually result in establishing representative performance benchmarks for UDICs in China.

Financial accountability and capability assessment	
Element	Description
Strategic management, organizational structure, and corporate culture	Clarity of organizational structure, and quality of the management team
Financial policies and planning	Budgeting and capital structure management
Operational management	Quality of operational functions
Transparency and reporting	Disclosure of financial information, and clarity of system for reporting to local government
Ownership structure and government influences	Clarity of ownership; governance track record of the local government
Governance structure, independence, and effectiveness	Corporate governance structure, including oversight framework, and independence of the management team

Financial performance and profitability		
Risk Profile	Subcategories	Description
Business risk profile	Regulation	Consistency and reliability of government regulations in the sector/market
	Markets	Strength of the market, particularly related to affordability and scope of the business
	Operations	Implementation expertise; ability to construct, operate, and manage assets
	Competition	Direct and indirect competition from other SOEs and private sector
	Financial and accounting policy	Policy regarding maximum allowed leverage, investment risk; and reasonable accounting standards that reflect true financial position
Financial risk profile	Profitability and cash flow protection	Profit margin; FFO/total debt; EBITDA/interest
	Capital structure and liability management	Asset liability management; foreign exchange risk; interest rate risk
	Financial flexibility	Ability to raise additional equity and debt to manage liquidity concerns

ACRONYMS AND ABBREVIATIONS

AAA	Analytical and Advisory Activities
ADB	Asian Development Bank
ADT	Average Daily Toll
ALR	Asset-Liability Ratio
CAB	Chongqing Audit Bureau
CBLSS	Chongqing Bureau of Labor and Social Security
CBLT	Chongqing Bureau of Local Taxation
CBNAO	Chongqing Branch of National Audit Office
CBWR	Chongqing Bureau of Water Resources
CCC	Chongqing Communications Commission
CCR	Corporate Credit Rating
CDB	China Development Bank
CDIC	Chongqing Development Investment Corporation
CEDC	Chongqing Expressway Development Corporation
CEIG	Chongqing Energy Investment Group
CFB	Chongqing Finance Bureau
CMG	Chongqing Municipal Government
CQ	Chongqing
CREG	Chongqing Real Estate Group
CSASAC	Chongqing State-owned Assets Supervision & Administration Commission
CTTIC	Chongqing Transportation and Tour Investment Company
CUCIC	Chongqing Urban Construction Investment Corporation
CWRIC	Chongqing Water Resources Investment Company
CWWCG	Chongqing Water Works Controlling Group
DD&A	Depreciation, Depletion, and Amortization
EBITDA	Earnings before Interest, Taxes, Depreciation, and Amortization
EFMA	Extended Financial Management Assessment
FACE	Financial Accountability and Capability Evaluation
FFO	Funds from Operations
FM	Financial Management
GDP	Gross Domestic Product
GOC	Government of China
GRE	Government-Related Entity
IG	Investment Group
JBIC	Japanese Bank of International Cooperation
MIS	Management Information System
MOC	Ministry of Construction
MOF	Ministry of Finance
NCF	Net Cash Flow
NDRC	National Development and Reform Commission
NPC	National People's Congress
NA	Not Available

NR	Not Rated
PRC	People's Republic of China
Q&A	Question and Answer (session)
RMB	Renminbi
SANRAL	South Africa National Roads Agency Limited
S&P	Standard and Poor's
SOE	State-Owned Enterprise
TAR	Technical Assistance Report
UDIC	Urban Development Investment Corporation
WB	World Bank
ZAR	Zuidafrikaanse Rand

CHAPTER 1. INTRODUCTION

Background

The Urban Development Investment Corporations (UDICs) are municipal corporations established under the Company Law of the PRC. The UDICs have become the primary market-borrowing vehicles for local governmentsⁱⁱ in China, where the cities are not allowed to engage in direct market borrowing.ⁱⁱⁱ While UDICs have played an increasingly important role in the infrastructure-led growth in Chinese cities, limited information is available about their financial operations. Importantly, international experience suggests that UDICs can also present serious financial and operational risks, disrupt financial market development, and increase the contingent liability of the local governments. The Government of China (GOC) has recognized the possible positive and negative implications of the UDIC-supported infrastructure development that is taking place in Chinese cities. The Ministry of Finance (MOF) and the National Development and Reform Commission (NDRC) have requested the World Bank (WB) technical assistance in initiating the review of this very sensitive policy area.

The GOC policy, as articulated by the MOF, is to gradually steer the UDICs toward a model in which they can operate as independent entities undertaking credit-based borrowing to develop infrastructure with increasingly more private sector involvement. The MOF and NDRC recognize that senior leadership in Chongqing is committed to reforming the financial operations of UDICs, and view the WB technical assistance as a useful and timely vehicle to support the efforts of the Chongqing Municipal Government (CMG). The GOC agencies expect that the WB Technical Assistance Report (TAR), based on the detailed analysis of the financial operations of a selected UDIC in Chongqing, will offer critical technical assistance to the CMG, which can also be shared with other Chinese cities. The GOC agencies realize that this TAR is the first step in the right direction, in that it will specifically address the needs of a reform-minded municipal government and clarify one UDIC model in detail. It is anticipated that similar efforts can be undertaken in the coming years with other reform-minded and high-priority cities that are employing different models of UDIC to finance municipal infrastructure.

In Chongqing, the CMG has established eight major infrastructure-oriented UDICs (called Investment Groups, or IGs) to promote infrastructure development. The large-scale infrastructure investment led by the eight UDICs has been a key driving force for economic growth in Chongqing. The average annual growth rate of infrastructure investment is approximately 23 percent over the last decade, reaching over RMB 100 billion in 2006. The eight UDICs have developed rapidly, with total assets at the end of 2006 reaching RMB 191.9 billion, which accounted for 42.5 percent of the total municipal state-owned assets. The CMG has in the past supported the UDICs in securing the necessary financing to undertake investment in municipal infrastructure. There is now a very strong and significant interest in the CMG to reduce the dependence of the UDICs on the municipal government. The technical quality of the projects undertaken in Chongqing over the last decade indicates that the MCs can be effective in constructing infrastructure. At least some UDICs have started partnering with the private sector to

develop infrastructure, including sales of municipal infrastructure assets such as toll roads to the private sector via joint stock company structures. The CMG is aware that while the UDICs have been able to quickly build infrastructure, there is a need to review their financial operations and their relationship with the CMG. The CMG is concerned about the financial sustainability of UDICs. The three key general areas of concern include the following:

- Capital mobilization, capital structure, and leverage
- Financial management (FM)
- Corporate governance, disclosure, and reporting structure

The anticipated increase in economic growth in Chongqing and the corresponding plans of the CMG to invest heavily in infrastructure via UDICs has increased the urgency of conducting a review of the financial operations of UDICs. The CMG is particularly concerned about the financial sustainability of the UDICs, and has requested WB assistance in clarifying and improving the financial operations of UDICs.

Scope of the WB Technical Assistance Report

The key objective of the WB engagement was to prepare a TAR on the operations of UDICs in Chongqing. The TAR is based on the realization that UDICs represent complex and sensitive issues that require a gradual and calculated approach involving close collaboration with key stakeholders. The need to anchor the work on an actual, operational situation on a demand-driven basis is also evident. Finally, the TAR is designed to allow the WB to conduct a detailed analysis of a UDIC model in one important city, and it is based on detailed information about the operations of a specific UDIC in order to provide meaningful and practical advice to the CMG. The parameters of the TAR are as follows:

- Primarily designed to provide technical assistance to the CMG
- A first, modest step to initiate the analysis of the UDICs in China
- Focused on one city that has demonstrated a strong commitment to UDIC reforms
- A detailed analysis based on one UDIC in Chongqing to ensure that the analysis of the financial performance is based on actual, operational data
- Chongqing Expressway Development Corporation (CEDC) selected in collaboration with Chongqing Finance Bureau (CFB) and MOF based on the following criteria:
 - Standard organization and supervision structure to review current CMG policies
 - Cash-flow-generating assets to establish credit analysis benchmarks
 - Reward high-performing, reform-minded UDICs with technical assistance
- Active participation and collaboration with the CFB, MOF, and NDRC's Investment Research Institute.

Long-term Objectives

The TAR aims to initiate the process of understanding the financial operations of various models of UDICs that are currently being employed by the cities in China. It is

anticipated that the process which is being started with this work in Chongqing will continue for several years in other cities and ultimately result in establishing a framework that can support developing UDICs as financially viable infrastructure finance vehicles. The framework will also safeguard against the future risk that UDICs may crowd out private sector players, increase contingent liabilities of the local and central governments, or both.

Partners and Implementation Structure

The concept of this TAR was developed in close coordination with MOF and the CFB. The NDRC has also been involved in defining the structure of WB engagement. The MOF assisted the task team in identifying the NDRC Investment Research Institute as the WB primary partner in conducting the research at the national level. The bulk of the preparation work was conducted by the WB Chinese partners and WB staff. With the exception of the international credit rating agency Standard and Poor's (S&P), no international consultants were involved in preparing the TAR. S&P was invited to conduct a credit and FM systems analysis of the selected UDIC (CEDC) to highlight the institutional development gaps in the operations of UDICs that must be filled if they are to pursue credit-based borrowing. The participation and contribution of the NDRC Investment Research Institute and CFB are described below.

Key Contributions of the NDRC Investment Research Institute

- Researched relevant legal, regulatory, and operational frameworks at the national level that govern the financial operations of UDICs, including the following:
 - The Company Law, Budget Law, and other relevant national laws.
 - National policy directives, rules, guidance, and regulations from MOF, NDRC, and other GOC agencies that govern the financial operations of the UDICs.
 - Mandated corporate governance structure of UDICs and the associated responsibility of municipal governments.
 - Rules governing transfer of assets by the municipal governments to UDICs.
 - Land use policies relevant to the financial operations of UDICs.
- Consulted with local governments and UDICs and organized a major workshop attended by 80 participants to solicit the views of the leaders from local governments and UDICs regarding the issues currently facing the UDICs in Chinese cities.
- Provided technical guidance to the WB in preparing the TAR. This involved reviewing WB drafts and providing comments, suggestions, and corrections as appropriate to ensure that the report presents correct information.
 - Coordinated with the relevant departments in NDRC and MOF to ensure that formal and informal comments are appropriately solicited regarding the contents of the Analytical and Advisory Activities (AAA) report before it was finalized.

Key Contributions of the CFB

- Coordinated with CEDC regarding information and data collection.
- Served as primary coordinator of the WB AAA with all agencies in Chongqing.

- Provided CMG policies and procedures governing the financial operations of UDICs in Chongqing, including the institutional and corporate governance arrangements.
- Supervised local consultants who provided information about CEDC operations.
- Organized a major UDIC workshop chaired by the chairman of the Chongqing State-owned Assets Supervision and Administration Commission (CSASAC) and attended by the senior leaders of the eight UDICs and other big state-owned enterprises (SOEs) in Chongqing.^{iv}
- Provided detailed information regarding the sources and uses of funds for the CEDC.
- Coordinated the review of the draft document by the CMG.

Summary

The UDICs have become the primary market-borrowing vehicles for local governments in China, but they offer opportunities as well as risks for the local governments. The GOC policy has initiated the process to gradually steer the UDICs toward a model in which they can operate as independent entities undertaking credit-based borrowing to develop infrastructure with increasingly greater private sector involvement. In Chongqing, the CMG is interested in reviewing the relationship between the local government and the UDICs, and putting in place an improved system to monitor the financial sustainability of UDICs. This TAR will initiate the process of understanding the financial operations of various models of UDICs that are currently being employed by Chinese cities.

CHAPTER 2. UDICS IN THE NATIONAL CONTEXT

Impressive Achievements in Infrastructure Development

China has implemented a very impressive infrastructure development program over the last two decades. The built infrastructure in Chinese cities, with quality indicators often matching developed country standards, is the envy of the world. Infrastructure investment has been maintained at approximately 9–10 percent of Gross Domestic Product (GDP), while the GDP has increased at almost 9–10 percent a year since 1980. The level of infrastructure investment, as well as the quality of infrastructure in China, compare very favorably in the regional as well as the global context. This chapter provides the background on UDICs in China, and discusses the key national policy drivers that have supported the UDIC-based infrastructure development model in China.

Development of UDICs

The UDICs were established during the early 1990s when the local governments were under great pressure to both build municipal infrastructure and to reform the role of the government in infrastructure development. The legal framework governing the operations of local governments, however, did not (and does not) allow them to engage in market borrowing. The UDICs therefore provided the local governments with a corporatized government structure to borrow from the market and quickly implement infrastructure projects. Box 2.1 below summarizes the key elements of the legal framework that prohibits local governments from engaging in direct market borrowing.

Box 2.1: Legal framework for local governments' borrowing in China

State Council Notice to Ban Erroneous Fundraising and Strengthen Bond Issuance Supervision (April 1993): “In approving debt new issues, all regions and departments shall comply with the State Council Notice in Strengthening Macro Control of the Securities Market and other relevant regulations.” Article 3: “Subnational governments are prohibited from, either directly or indirectly, issuing bonds.”

Budget Law (January 1995): “All levels of local governments shall prepare their budgets on the basis of spending within their means and to achieve balanced budgets, and not to incur deficits; apart from changes conferred by law and the State Council, local governments are prohibited from issuing any type of local government bonds.” (Article 28) (issued by National People's Congress [NPC])

Guarantee Law (July 1995): “All government organs are not allowed to provide guarantees for any institutions, unless otherwise approved by the State Council, for utilization of bilateral loans and loans from international monetary institutions.” (Article 8) (issued by NPC)

Legal Definition and Organization of UDICs

The UDICs are treated as municipal corporations established under the Company Law of the PRC; i.e., they can be defined as municipal SOEs. We should note that the Company Law does not specifically address the investment companies of the local government (or UDIC), so there are no specific legal restrictions on the investment scope of UDICs as municipal entities. As state-owned corporations, the UDICs are subject to specific restrictions imposed by Article 4, Chapter 2 of the Company Law on “special rules on

fully state-owned companies.” These restrictions primarily relate to the organizational and administrative aspects, such as the appointment of the board, terms of the directors, and the composition of the board of supervisors. The detailed description of UDIC operations vis-à-vis reporting, budgeting, FM, etc., is provided in Chapter 4 of the Company Law. The important national-level legal and policy parameters (or lack thereof) for the functions of UDICs are as follows:

- No specific requirements or recommendations vis-à-vis corporate governance structure to manage the relationship between the local governments and the UDICs.
- No clarification of the nature or limits of the financial liability of the local governments vis-à-vis UDICs.
- No specific provisions for scope of investment, and no specific risk control measures.
- No specific accounting system—the UDICs implement the general enterprise accounting system that is employed by all SOEs.
- General regulations on labor and human resources management. As fully state-owned companies, UDICs’ directors, supervisors, and managers cannot be civil servants.
- According to China’s land administration system, UDICs may obtain state-owned land-use rights through various means, such as agreement, bidding, and auction. In the context of SOE reform, the state can authorize UDICs as government-owned agencies to operate such land use rights. Note that UDICs can then allocate the land to their direct subsidiaries and controlled enterprises, and share participation enterprises by using the land use right as investment or by leasing.

Function, Scope, and Positioning of UDICs in Local Government Structure

The nongovernment national association of UDICs in China—the National Association of Urban Development Investment Companies—estimates that there are approximately 360 established UDICs in the country, and their operational model and reporting structure vary significantly.^v

Table 2.1: Reporting arrangement for UDICs

Proportion of UDICs	Direct management responsibility
70%	Municipal government
15%	Department of Urban Construction
10%	Local state asset management department
5%	Local department of reform and development

Source: National Association of Urban Development Investment Companies

The UDICs are continuing to grow rapidly in Eastern China where some provinces (e.g., Shandong) have established UDICs for the infrastructure development at various government levels, including counties, prefecture-level cities, and provincial capitals. In other cases (e.g., Shanghai), special UDICs have been established to promote infrastructure development by prefecture and county-level governments, which are separate from the UDICs of the municipal government. The establishment of UDICs,

however, is significantly slower in the Midwest, where in some provinces (e.g., Jilin Province) the establishment of the very first UDIC is still in the planning stages.

The key responsibilities of the UDICs vary depending upon the objectives of the local government. The common functions of UDICs, however, can include the following:

- *Financing platform.* UDICs raise funds for urban infrastructure development from multiple channels. They provide borrowed money to infrastructure projects through on-lending or direct investments.
- *Public sector investor.* UDICs operate as authorized investment agents of the municipal government or state-owned-asset administration authorities. UDICs operate and manage the assets within their authorized scope and are responsible for maintaining the value of the asset and protecting the interests of government.
- *Land development agent.* Many UDICs conduct up-front development and management of land allocated by local government in urban planning areas.
- *Project sponsor/owner.* UDICs sponsor and own priority urban infrastructure projects. In this respect, UDICs are responsible for investment, construction, management, and operation of projects.

The functional scope of a UDIC is generally limited to urban infrastructure finance, development, and operation. The sector focus is primarily on municipal infrastructure, including water supply, wastewater treatment, gas supply (natural gas, manufactured gas, and liquefied petroleum gas), heat supply, garbage treatment (including garbage power generation), and urban rail transport. The scope may also include urban roads, bridges, squares, flood prevention (drainage), urban comprehensive river management, old urban area upgrading, new urban area construction, parks and green land, and other nonoperational projects. The UDICs, however, are usually not involved in power, post, telecommunication, outward transportation (railway, aviation, and port) and other large-scale infrastructure projects of national scope.

The involvement of UDICs in social infrastructure (e.g., education, health care, sanitation, culture, and sports) varies by local government. Most local governments generally exclude these types of projects from the investment mandate of UDICs, but there are some exceptions. In some rare cases, non-infrastructure projects, such as government-office building and economical and practical housing, are included in the investment scope of UDICs. Municipal infrastructure projects in China are generally classified into three categories.

- *Operational projects.*^{vi} Projects that are suitable for market borrowing, i.e., they involve user charge or other means to generate cash flow, offer a reasonable profit, and can be used to pay back loans.
- *Quasi-operational projects.* Projects that offer partial cost recovery through user charge, but can become operational with some form of partial government subsidy.
- *Nonoperational projects.* Essential public infrastructure services with limited cost recovery, and are therefore best financed with public budgets, not market borrowing.

The investment scope of UDICs usually covers operational and quasi-operational projects. In some cases, however, the local governments require them to invest in nonoperational projects, often as a way to cross-subsidize priority nonoperational projects with other revenue-generating operational infrastructure projects.

The UDIC Model and National Policy

The creation of UDICs stems from the central government directive in the early 1990s that the infrastructure development responsibility should be removed from direct local government departments and corporatized into separate municipal entities. The strategy is referred to in China as “*marketization*” of infrastructure development. Several related fiscal and banking sector policies provided significant support to the UDIC-led infrastructure development in Chinese cities. Annex II contains a more detailed summary of the development of the UDIC model and the national policy related to UDICs. Listed below are four important policy areas that influenced the evolution of UDICs, but the subsequent policy changes and reforms in these areas have gradually put the UDICs under significant financial and operational pressure.

1. *Infrastructure development and incentives for local government leaders.* The five-year plans are prepared under the leadership of the NDRC at all levels of the government, and they define targets for physical development as well as economic growth benchmarks, such as GDP growth rates, that are translated down to regional targets for the local governments. The development of infrastructure (physical development goals) is widely viewed as one of the most prominent indicators of the success of local leadership. The infrastructure development targets are taken seriously at each level of the government; progress is also monitored by the Communist Party leadership. The goals and targets of the national plans form the critical incentive structure for leaders at all levels of the government, as the leaders are rewarded for reaching or exceeding the goals.

2. *Fiscal decentralization.* The economic reforms that began in 1978 brought about the decentralization of economic power to the local governments. By 1993 the process had evolved into a system of six revenue-sharing contracts between local and central governments. The changes in the system in 1993 provided the local governments’ additional authority to make their own decisions about revenue collection and incentivized them to transfer the key revenue-generating activities to off-budget operations that were not subject to the revenue-sharing contracts with the central government. The UDICs provided an ideal off-budget platform for the local governments to take advantage of their newfound ability to introduce various kinds of special fees, charges, and revenues derived from land leases to finance municipal infrastructure.

In 1994, the central government began to pull back the revenue-generation authority that had earlier been devolved to the local governments. The 1994 fiscal reforms replaced the revenue-sharing contracts with a tax and revenue assignment system that reduced the local government share of the total fiscal revenues. Since 1994 there has been a steady and significant decline in the number of local government revenue-generation sources and the amount of revenue they provide to the local government. At the same time, the

expenditure assignments for local government have not changed. It is important to note that while the fiscal pressures have significantly limited the authority of the local government (and its entities) to generate revenues, the new rules have not directly stopped the local governments from using off-budget entities such as UDICs to raise financing.

3. *Local government authority.* The local government budget is legislated and approved by the local Peoples' Congress. The budget, however, must comply with the national Budget Law, which prohibits local governments from deficit financing, market borrowing, and issuing municipal bonds. The subsequent changes in the tax structure since the end of 1993 have shifted the responsibilities for approving all new local government taxes and modifying the rates of all local taxes to the central government. As a result, the proportion of total infrastructure development expenditures that could be financed with local government fee and changes has decreased substantially. These trends are set out in detail in Annex II.

Thus, within the narrow window of shrinking local government revenues and weakening local government authority to increase rates or introduce new local fees and charges, the UDICs provide one of the few remaining avenues for local government to raise the capital for their infrastructure development plans. The ability of the local governments and their entities to service the debt of their UDICs, however, has been severely reduced since 1993. This is particularly significant because the demand for infrastructure (and the resulting need to raise off-budget-financed capital expenditure) has steadily increased over the same period. The steady decline in budget support available to local governments to finance infrastructure development over the years has been compensated by an extraordinary increase in market borrowing by off-budget local government entities during the same period. The total banking sector debt for local government units for urban infrastructure^{vii} was RMB 74.2 billion in 2001. It is estimated that the market borrowing has continued to increase at a significant pace since then. It also appears that the sharp increase in market borrowing by off-budget local government entities has been accompanied by increasing lack of transparency regarding the financial accounts of the off-budget entities. While the accounts of UDICs and other off-budget entities in some reform-minded cities (e.g., Chongqing) are available, it is not possible to obtain a current aggregate estimate for the total market borrowing for infrastructure development by local government entities.

4. *Financial sector development and banking sector reforms.* In the early 1990s, when the government strategy of *marketization* of infrastructure development was being aggressively pursued, all the banks in China were owned by the state and the use of the banking sector to finance urban infrastructure was an accepted national policy. This policy-oriented bank lending to UDICs had at best a very weak relationship with the credit risk associated with the UDICs or their projects. The type of market debt that was used by the local government entities to finance infrastructure also presents risks. The majority of the outstanding debt associated with the borrowing by local government entities is reported to be of short- to medium-term maturities; i.e., five to eight years. The short maturity of debt used to finance infrastructure projects in developing cities (which

by definition require long gestation periods) puts further pressure on the cash flow of local government entities. The resulting maturity mismatch was less of a problem for the local government entities when they could receive low interest rates or flexible rollover terms, or both, from what were then state-owned banks.

The ongoing banking sector reforms are significantly changing the relationship between the local governments (and their entities) and the banks. The financial deregulation and the anticipated competition from foreign banks require the banks to improve their credit standards and clean up their nonperforming loan portfolios. The increased scrutiny of the balance sheets of the banks means that it is no longer easy for the local government entities to roll over old debt at convenient terms. The incentive structure supported by the current environment of political economy, however, continues to point against outright loan default or write-offs. Importantly, the banking sector has continued to extend credit to local government entities because of (a) excess liquidity and strong competition in the market, (b) low capacity of the banks to conduct credit appraisal, (c) implied guarantees of the local governments, and (d) unwillingness to undertake write-offs and show losses. The continued ineffectiveness of the private market to make credit-based investment decisions vis-à-vis the borrowing by local government entities has forced the GOC to move cautiously on developing other channels of capital supply for infrastructure. For example, the MOF has continued to rely upon a very conservative case-by-case review of the applications for corporate bonds by local government entities instead of establishing a rule-based system for the local government entities to issue corporate bonds. The anticipated policy change to establish a framework for issuing municipal bonds by local governments also appears to be moving at a slow pace.

Summary

The quality of infrastructure in Chinese cities compares very favorably in the regional as well as the global context. Investment in infrastructure since 1980 has been maintained at approximately 9-10 percent of GDP at a time when the GDP has increased at the rate of almost 9-10 percent a year. The UDICs have played a key role in the infrastructure development in Chinese cities. The UDICs were established during the early 1990s, when the local governments were under great pressure to both build municipal infrastructure and to reform the role of the government in infrastructure development. Specifically, the creation of UDICs stems from the central government-led directive in the early 1990s recommending the *marketization* of infrastructure development, a policy that required that the infrastructure development responsibility be removed from direct local government departments and corporatized into separate, more market-oriented municipal entities. The UDICs provided the local governments with a corporatized government structure to borrow from the market and quickly implement infrastructure projects. The responsibilities of the UDICs vary, depending upon the objectives of the local government.

The off-budget classification of UDICs also provided an important incentive to the local governments to establish UDICs. Specifically, the UDICs provided a useful tool for the local governments to undertake off-budget financing operations at a time when the fiscal policies required the local governments to share their on-budget revenues with the central government. Over the past decade, the fiscal policy reforms have increasingly made it

difficult for the local governments to establish new (unshared) revenue streams. The development of infrastructure in the cities, however, has continued because of the demand, as well as supply-side incentives (including liquidity in the financial market, competition among the cities to show development via infrastructure development, etc.) and the increasing demand for infrastructure supported by economic growth and urbanization. The result is the continuation of market borrowing by UDIC to levels that in many cases are not supported by the cash flows available to them for debt service.

CHAPTER 3. UDICS IN CHONGQING

Chongqing Municipality

Chongqing is located in the confluence of the Yangtze River and the Jialing River in Southwest China. It enjoys a strategic geographic position as a hub connecting the East and the West of China, with the adjoining five provinces: Sichuan, Hubei, Hunan, Guizhou, and Shaanxi. With an area of 83,000 square kilometers and a population of more than 31 million, Chongqing is one of four provincial-level municipalities in China that are directly administrated by the central government.

Figure 3.1: Map of Chongqing Municipality



The Establishment of Chongqing Municipality

Chongqing achieved municipality status as a provincial-level entity in 1997. A wartime capital city during World War II, Chongqing was administrated directly by the central government until 1954, when it was downgraded to a sub-provincial-level city in Sichuan Province. However, the economic affairs of Chongqing have always remained under the close control of the central government because of the geographic, historical, and

industrial priorities of the central government. The following considerations played a key role in the decision of the central government to give provincial status to Chongqing:

- *The Three Gorges Project.* The building of the largest dam in the world—Three Gorges Dam—required the special attention of the central government. The Three Gorges Project is essentially a central government project in Chongqing. The project required relocating affected population on an unprecedented scale, and reestablishing two cities, 11 county towns, and 116 townships.
- *SOE restructuring.* Chongqing was home to a large number of industrial SOEs, particularly in the defense industry. Most of these SOEs were owned by the central government. With the ongoing liberalization of the economy, the central government decided to pilot the key elements of its SOE reform program in Chongqing.^{viii} The central government reached a decision that the large-scale restructuring of the SOEs could not be handled by the provincial government of Sichuan, which was relatively far removed from the operations of Chongqing and its SOEs.
- *Regional balance.* As one of the largest commercial centers in the West, Chongqing plays a very strategic role in the development of the Western region. The development of Chongqing as a major industrial, financial, and education hub is an important part of the GOC strategy to expand the benefits of the economic liberalization and growth to the lagging regions in the western part of the country.

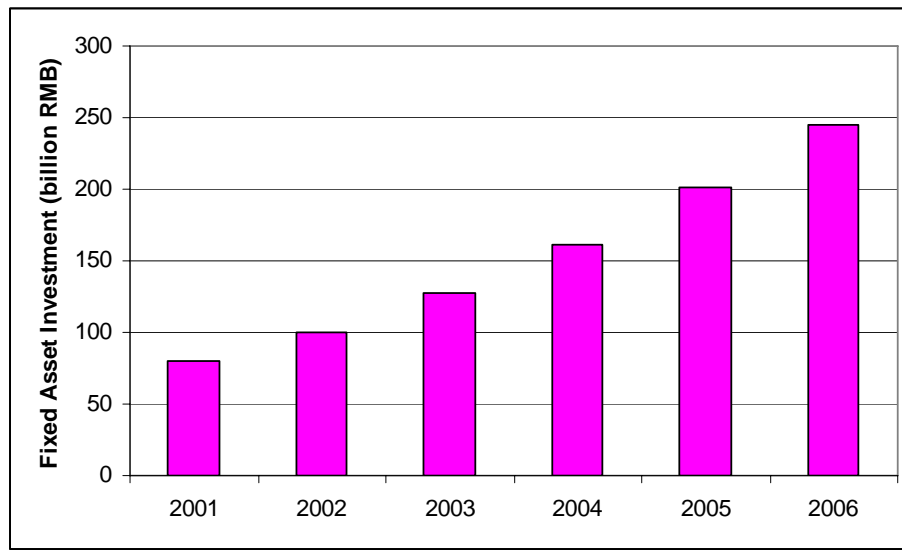
Chongqing as a Pilot Reform City

On June 9, 2007, the central government announced a new national development policy to further strengthen Chongqing's position in the development of the Western region. Chongqing and Chengdu were selected and approved by NDRC as pilot reform cities to pursue coordinated development of rural and urban areas through reforms in all sectors. According to an NDRC document, these two cities are urged to undertake new initiatives in pushing forward comprehensive reforms in order to achieve coordinated and balanced development between rural and urban areas. The ultimate objective of balanced development is to make sure that rural farmers and migrant workers can enjoy the same rights, public services, and living conditions as the urban residents. The focus of the central government policy is to promote balanced economic development in Western China.

Economic Growth and Infrastructure Development

Chongqing has achieved an average GDP growth rate of 11 percent from 2001 to 2006. The economy is based on four key industries: (1) automotive, (2) equipment manufacturing, (3) natural resource processing, and (4) high technology. Development of infrastructure has been a top priority of the CMG since Chongqing became a provincial municipality. As shown in Figure 3.2, during 2001 to 2006 the investment in infrastructure has increased from RMB 80 billion to RMB 247 billion, an increase of more than 200 percent. Under the “Go-West Strategy” and the “Build Harmonious Society” campaign, Chongqing urbanization and industrialization process is expected to accelerate in Chongqing. Under Chongqing's 11th Five-Year Plan, the CMG will continue to increase the scope of infrastructure investment.

Figure 3.2: Fixed asset investments in Chongqing (2001-2006)



CMG Leadership

There is a very direct and substantive relationship between the municipal leadership in Chongqing and the central government. Since 1997 (when Chongqing became provincial municipality), all the party secretaries and majors of Chongqing have been appointed by the central government, and their backgrounds include high-level central government appointments. For example, the former mayor Bao Xuding used to be a vice chairman of the NDRC. The former municipal party secretary, Huang Zhendong, was the former minister of communication. He has played a key role in facilitating the approval of Chongqing's ambitious expressway construction plan (two rings and eight radiations) to build 2,000 kilometers of expressway by 2010. The current executive vice mayor, Huang Qifan, comes from Shanghai Municipality with a solid background in infrastructure finance and business administration. Mr. Huang was in charge of developing the Pudong New Development Zone in Shanghai. He has brought significant management skills, experiences, and knowledge for the reform of SOEs and UDICs in Chongqing. These leaders, ably assisted by the CSASAC, the Chongqing Development and Reform Commission, the CFB, and other strong local government institutions have transformed the UDIC structure in Chongqing into what is now referred to in China as the "Chongqing UDIC Model." The Chongqing Model refers to the establishment of eight specialized UDICs organized along sector and functional responsibilities.

The "Chongqing UDIC Model"

In 2002, the CMG established eight state-owned infrastructure-construction IGs (or UDICs) to reform the infrastructure investment and financing system in Chongqing. The eight UDICs provide the platform for CMG to implement its infrastructure development strategy that builds upon *marketization* and the increased role of private sector in financing infrastructure. The eight UDICs have sector-specific responsibilities and separate financial accounts and management teams.

Box 3.1: List of the eight UDICs in Chongqing

- Chongqing Expressway Development Company (CEDC)—constructing, operating, and managing expressways.
- Chongqing Transportation and Tour Investment Company (CTTIC)—constructing, operating, and managing highways; developing and managing for tourism attraction.
- Chongqing Urban Construction Investment Corporation (CUCIC)—developing urban infrastructure such as bridges, tunnels, and roads in the main urbanized districts.
- Chongqing Energy (Construction) Investment Corporation (CEIC)—investing, operating, and managing energy-related (i.e., electricity, gas, and coal) power projects
- Chongqing Real Estate Group (CREG)—restoring, rehabilitating, and developing lands.
- Chongqing Development Investment Corporation (CDIC)—building and operating rail transportation and other infrastructure projects.
- Chongqing Water Works Controlling Group (CWWCG)—providing water supply and drainage integrated service to the main urban area.
- Chongqing Water Resources Investment Company (CWRIC)—investing in and constructing water conservancy projects, small hydropower plants, and water supply and drainage projects.

Principles of UDIC Reform

The reorganization of the UDICs in Chongqing was undertaken after careful deliberations. The CMG leadership reviewed the experiences of cities around the country and balanced the risks and rewards of the UDIC model with the need to build the necessary infrastructure to make Chongqing a growth driver for Western China. It appears that the CMG considered the experiences of Shanghai to be particularly relevant in reorganizing the UDICs in Chongqing along sector-specific lines.^{ix} The reorganization emphasized the following three strategic objectives:

- Implement new generation *marketization* reforms that establish clear operational and financial responsibilities for the UDICs.
- Establish sound financing platforms that can be used for innovative financing as well as partnership with the private sector.
- Focus on risk management, particularly financial risk management.

Annex 7 contains a speech by Mr. Huang Qifan, the executive vice mayor of Chongqing, that provides the details of the CMG strategy for the reform of UDICs.

Risk Management Framework for UDICs

The CMG is one of the first local governments in China to develop a comprehensive operational and financial risk management policy for UDICs commencing in 2003. While more can be done to improve the policy and its implementation, the CMG policy on UDIC risk management addresses the key issues and presents a forward-looking vision for how the UDICs should operate. It presents a critical benchmark for the development of UDICs in China.

The CMG “Three No Policy” for Risk Management of UDICs

1. The CMG will not provide fiscal guarantees for the UDICs under any circumstances. If the UDICs intend to borrow bank loans, their borrowing should be a credit-based corporate borrowing and it should be processed without a municipal guarantee.
2. The UDICs cannot provide guarantees for each other because doing so can result in increased systematic financial risk.
3. The UDICs’ should establish special purpose funds (reserves) to manage risk and the funds cannot be used as collateral or be utilized for other operational activities.

The CMG “Three Big Balances” for Risk Management of UDICs

1. Balance between long-term assets and liabilities. The CSASAC requires that the UDICs maintain a long-term asset/liability ratio of around 50 percent.
2. Balance between cash inflows and outflows. UDICs must keep sufficient cash reserves to manage liquidity risk, i.e., cash required for paying principals and interests on loans, investment, and regular operational expenses. Cash inflows may come from operational revenues (toll or fees), new loans, fiscal transfers or capital injections, or sales of existing assets. CSASAC establishes sector- and business-specific liquidity parameters for each UDIC.
3. Balance between input and output. The operational independence of the UDICs must be established and maintained; the UDICs should not simply follow the CMG instructions. When the CMG asks the UDICs to undertake a project, the investment of the CMG and its other entities must be clarified before proceeding with the project.

CMG Financial Assistance to the UDICs

The CMG provides capital (registered equity) as well as indirect policy-based assistance (e.g., road maintenances fee provided to the CEDC) to support the operational revenues of the UDICs. These, along with the direct revenue sources of the UDICs (e.g., toll revenues), form the total capital base for the UDICs. The central government rules mandate that for all infrastructure projects, a certain percentage of the total project construction cost must be contributed by the sponsoring agency from its own capital base. The mandatory contribution of the sponsoring agency depends upon the sector of investment.^x Once the sponsoring agency has satisfied the mandated capital contribution requirement, the remaining financing need of the project can be filled with market borrowing. It appears that this rule was established to safeguard against excessive leverage being imposed upon infrastructure projects; however, as discussed later in Chapter 4, there are several unresolved issues vis-à-vis the implementation of this State Council Circular. The list below represents additional revenue sources that allow the UDICs to meet the mandatory capital requirement for their projects.

- *State bonds.* The central government routinely issues state bonds for infrastructure investment and passes on the proceeds to local governments. The CMG receives RMB 4-5 billion from the state bond program annually, and allocates them as capital injection (equity) into the eight UDICs.
- *Land use rights.* Transfer of land or land development rights can be allocated as capital injection (equity) or indirect assistance to augment operating revenues.

- *Transfer of existing assets.* Existing physical assets—such as roads, bridges, and tunnels—built and owned previously by the municipal commissions and agencies can be transferred to UDICs as capital (equity) or their proceeds may be allocated to UDICs to boost their operating revenues.
- *Municipal fee and charges.* Urban construction and maintenance fee are extra budgetary funds (estimated to be about RMB 13 billion in 2006) that can be allocated to UDICs.
- *Tax credits.* UDICs can receive various forms of tax breaks related to their construction activities and corporate operations.
- *Loans.* The UDICs can also receive soft loans from the China Development Bank (CDB) and other development banks that are on-lent through the various state commissions (e.g., the Chongqing Communications Commission [CCC] borrows from the CDB using “transportation maintenance fees” as guarantee and then passes the loans on to CEDC). The on-lending from the commissions is an exception in that the UDICs are allowed to use the funds on-lent to them by the commissions to satisfy the state council requirements stipulating a certain sponsor-agency capital contribution to the financing of infrastructure projects.

Financing Sources Available to UDICs

The UDICs have access to five primary financing sources to raise funds for their capital expenditure programs. These are as follows:

- *CDB loans.* The regular CDB loans (often referred to as the “hard loans” in China). CDB is the biggest lender to the Chongqing UDICs. The CDB provides loans for specific projects, as well as “bundled loans” or corporate loans to UDICs.
- *Commercial bank loans.* Several commercial banks, such as Chongqing Industrial and Commercial Bank, Construction Bank, Merchant Bank, Everbright Bank, and Minsheng Bank, lend to the UDICs. These tend to have stiffer terms (maturity and interest rates) than the CDB loans, although the excess liquidity and tight competition has been slowly closing the gap between terms offered by CDB and commercial banks.
- *Loans from international financial institutions or foreign governments.* The bilateral and multilateral donor agencies, including the WB and Asian Development Bank (ADB), have provided GOC-guaranteed loans to municipal projects managed or cofinanced by the UDICs.
- *Corporate bonds.* Some UDICs have been able to obtain GOC permission to issue corporate bonds. For example, Chongqing Urban Construction Investment Corporation has twice issued corporate bonds totaling RMB 1.6 billion and RMB 2 billion. The Chongqing Water Works Controlling Group (CWWCG) and the Chongqing Development Investment Corporation (CDIC) have also issued corporate bonds totaling RMB 1.7 billion and RMB 1 billion, respectively.
- *Stocks issuance.* Some subsidiaries of the UDICs have issued initial public offering or purchased other companies that have been listed on the capital market.

The CMG Infrastructure Development Strategy and UDICs

The CMG strategy for developing the infrastructure in Chongqing is based on continued investment via the UDIC platform. The total assets of the eight UDICs at the end of 2006 equaled RMB 191.9 billion, a 27 percent increase over 2005. Importantly, the total assets of the eight UDICs constitute 40.7 percent of the total municipal state-owned assets. The eight UDICs had total liabilities of RMB 115.8 billion, and debt/equity ratios of 60 percent. In 2006, the eight UDICs invested RMB 34.2 billion in construction projects, a 22 percent increase over 2005. The total investment of the eight UDICs in 2006 accounted for 35 percent of the total investment in infrastructure in Chongqing. Table A3.1 in Annex III summarized the operational performance of the eight UDICs.

Operational Mandates of UDICs

The reorganization of UDICs by the CMG has established the first important benchmark for how the UDICs should be managed by local governments. The higher-level, sector-based mandate assignment for the UDICs in Chongqing appears to achieve economies of scope in infrastructure development. There is, however, a need to further review the details, because almost all the UDICs have to contend with additional responsibilities that are assigned to them on an ad hoc basis. The additional responsibilities often do not contribute to the development of the UDICs as specialized, financially independent, professional institutions. Specifically, with respect to assignment of additional responsibilities on an ad hoc basis, the UDICs in Chongqing are beginning to experience the same “moving target” problems that are associated with the unclear and unreliable functional mandates of UDICs in other cities. The following observations can be made regarding the assignment of responsibilities to the UDICs:

- There appears to be an inherent attempt to balance the financial performance of UDICs. Specifically, the CMG tends to assign additional non-revenue-generating responsibilities on an ad hoc basis to UDICs that demonstrate profitable operations.
- Various functions and responsibilities assigned to the UDICs sometimes do not fit together based on a business-oriented, or *marketization* approach. For example, the CWWCG is responsible for both water supply as well as water resource management, which are two very different types of businesses requiring different expertise and are compatible with different financing models.
- There appears to be no, or only a marginal, relationship between the mandates of the UDICs and the “market borrowing” function. Specifically, various investments undertaken by the UDICs often do not lend themselves to market-based financing.

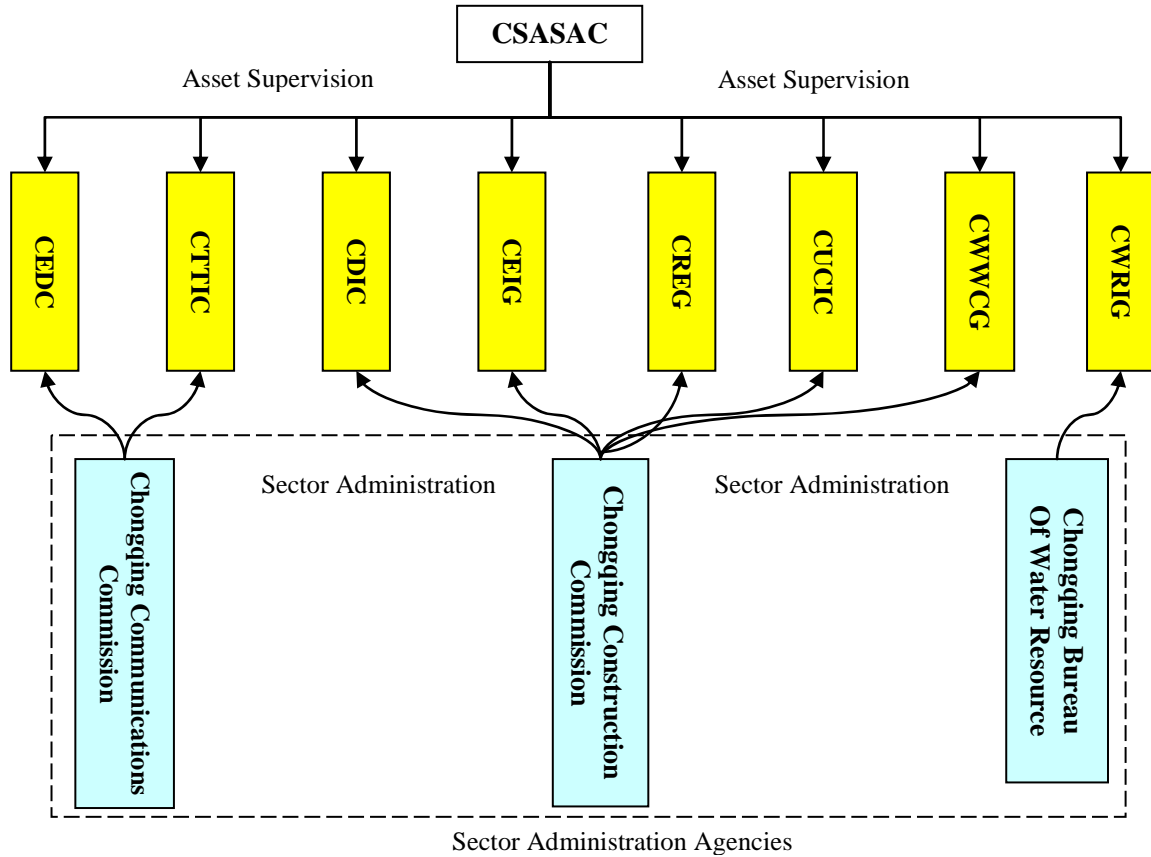
The CMG clearly realizes the need to review and revise the system for assigning responsibility to UDICs.^{xi} The key implications of the current mandate assignment system include (a) a mismatch between the investments and financing sources of UDICs; (b) unreliable (or moving) performance targets, which undermines the incentives for UDICs to perform profitably; (c) lack of synergy in the functions assigned to UDICs; and (d) lack of clarity and consistency in the mandate, which makes it difficult for the banks to assess the credit of the UDIC and provides incentives to them to securitize the loans to the UDICs with local government guarantees.

The CMG Supervision of UDICs The CMG UDIC supervision framework consists of asset supervision and sector administration, as described in Figure 3.3. Four key CMG agencies are responsible for UDIC supervision:

- (1) Chongqing State-owned Assets Supervision and Administration Commission (CSASAC),
- (2) Chongqing Communications Commission (CCC),
- (3) Chongqing Construction Commission, and
- (4) Chongqing Bureau of Water Resources (CBWR).

As the designated state asset investor and owner, the CSASAC is the primary supervisor, while the remaining three agencies provide sector-related operational supervision functions. The details of the functions and the relationships between these agencies and the UDICs are set out in Annex IV.

Figure 3.3: Overview of the oversight framework of the UDICs



The CMG Agencies Responsible for Sector-Specific Supervision of UDICs

Three CMG agencies conduct sector-specific supervision of the eight UDICs. These include the CCC, Chongqing Construction Commission, and CBWR. The CCC is responsible for sector-specific supervision of CEDC and Chongqing Transportation and Tour Investment Company (CTTIC). The Chongqing Construction Commission supervises CDIC, Chongqing Energy Investment Group (CEIG), Chongqing Real Estate

Group (CREG), Chongqing Urban Construction Investment Corporation (CUCIC), and the CWWCG, while the CBWR monitors the progress of Chongqing Water Resources Investment Company (CWRIC).

- *CCC*. Four out of the 17 divisions of CCC participate in operational supervision of CEDC and CTTIC; these include the (1) Policy and Regulation Division; (2) Finance Division; (3) Highway Construction and Management Division, and (4) Comprehensive Planning Division.
- *Chongqing Construction Commission*. The commission takes charge of national and local principles, policies, laws, regulations, and rules concerning urban infrastructure construction, investigation and design consultation for the building industry, engineering construction, real estate industry, and municipal public utilities. The primary divisions involved in UDIC supervision include the (1) Policy and Regulation Division; (2) Development and Planning Division; (3) Construction Management Division; (4) Key Project Construction Division; (5) Urban Infrastructure Construction Division; and (6) Housing Construction Division.
- *CBWR*. The scope of the CBWR includes supervising the implementation of national and municipal laws, regulations, principles, and policies regarding water resources; performing integrated management of water resources and supervising implementation; and managing the water conservancy projects.

Summary

Chongqing is a fast-growing city and a key node for the development of the Southern region of China. The city has grown at an impressive 11 percent average GDP growth rate from 2001 to 2006, with a diversified industrial base focused on automotive, manufacturing, and natural resource industries. The GOC has recently selected Chongqing as a pilot reform city to pursue coordinated development of rural and urban areas and undertake policy reforms to establish models that can be replicated in other Chinese cities.

The CMG's infrastructure development strategy is primarily implemented via the eight UDICs that were established in 2002. Chongqing has one of the most advanced UDIC models in China in which the UDICs have sector-specific responsibilities and separate financial accounts and management teams. The CMG is one of the first local governments in China to develop a comprehensive operational and financial risk management policy for UDICs.

Chongqing has developed a bold strategy for reforming the UDICs; however, critical institutional development of the UDICs is required before the strategy can be successfully implemented. The lack of clarity, consistency, and predictability associated with the operational mandate of the UDICs remains a key bottleneck to the institutional development of UDICs. The current framework of how the CMG assists the UDICs in arranging financing appears to require streamlining, and its focus needs to shift from arranging financing for projects to arranging the financing for the UDICs and their long-term capital plans. The CMG has put in place a supervision framework for UDICs that consists of asset supervision and sector and technical administration. The CSASAC is

the designated state asset investor and owner and the primary supervisors, while the remaining three agencies provide sector-related operational supervision functions.

CHAPTER 4. DETAILED ORGANIZATIONAL REVIEW OF THE CEDC

Introduction

As discussed in Chapter 1, the CEDC was selected to conduct a detailed operational analysis of one UDIC in Chongqing to obtain a better understanding of the institutional and operational framework within which the UDICs function in Chongqing. The overall operational framework, including CMG oversight, of the CEDC that is described in this chapter is representative of most, if not all, of the eight UDICs in Chongqing. The sector-specific or technical elements of the UDICs' operations differ depending upon their functional mandates.

This chapter provides a detailed analysis of the operations of CEDC. It includes a description of the CMG organization structure and business model and the various interfaces with the CMG and other oversight agencies, as well as the financial supervision framework and budget process. The chapter also explains the system whereby the CMG gives financial support to the CEDC and specific risk management procedures regarding foreign-exchange risk management.

CEDC Background

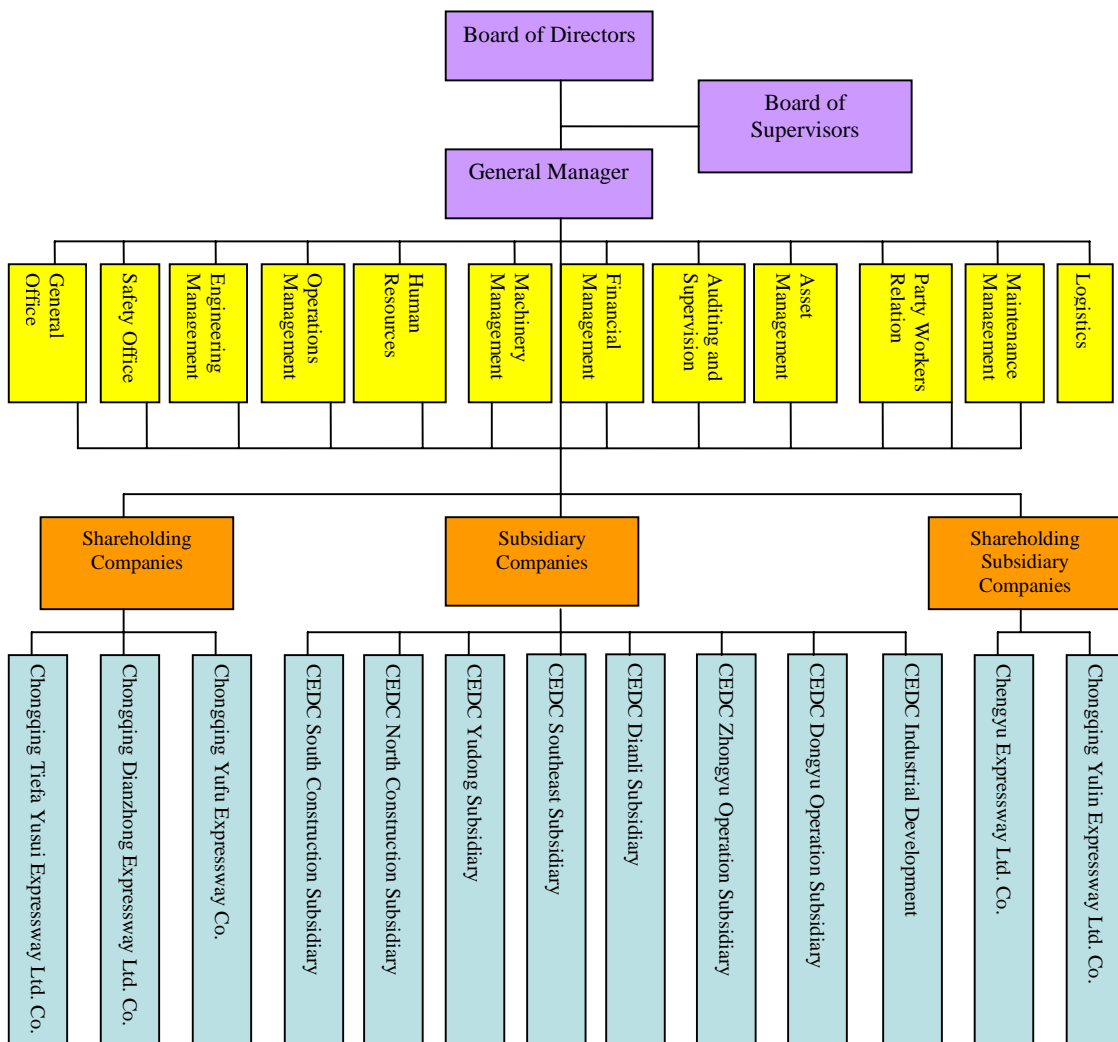
CEDC is a large SOE owned by the CSASAC and regulated by the CCC. Its core business is constructing, operating, and managing expressways (or toll roads) in Chongqing. The noncore businesses of the CEDC include services such as gas stations, road maintenance, road materials, and billboard advertising alongside the expressways. Since 1989, CEDC has invested RMB 36.6 billion and constructed 12 expressways with a total mileage of 778 kilometers. The CEDC projects are guided by national and local government transportation plans. The CEDC can raise capital through various funding channels, including state grants, local capital transfers, bank loans from CDB and local commercial banks, and loans from international financial institutions such as the Japanese Bank for International Cooperation (JBIC). Annex I provides further details of the institutional background of CEDC.

Chongqing currently has one ring road and five radial roads, and its expressways are connected to the provincial-level expressways of Sichuan and Guizhou. The CEDC has made important contributions to the GDP per capita of Chongqing and neighboring areas. The expressways constructed by the CEDC have become a key driver of the growth of Chongqing's industries, which include machinery manufacturing, chemical industry, trade and logistics, finance, and metal refining and rolling. Although the CEDC has done an impressive job of constructing 750 kilometers of expressways in a short period of time, the existing expressway network is still unable to meet the increasing demands for expressways in the fast-growing economy in Chongqing and Western China. The Chongqing 11th Five-Year Plan therefore charts an ambitious plan for the CEDC. According to the plan, by 2010 Chongqing's expressway network should consist of two ring roads and eight radial roads with a total mileage of 2,000 kilometers.

CEDC Organizational Structure

Under the guidance of the CSASAC and the CCC, the CEDC is an investing and financing group company, responsible for constructing, operating, maintaining, and financing all expressways in Chongqing. With registered capital of RMB 2 billion and assets of RMB 50 billion, the CEDC is a large-scale SOE. The CEDC is organized according to the modern SOE system in China, which involves a general manager taking full operational responsibility under the authority of the board of directors. The CEDC has 12 departments, eight branches, and 4,669 employees. In addition, it owns seven subsidiaries, which are consolidated under its financial accounts and statements.

Figure 4.1: CEDC organizational structure



CEDC Business Model

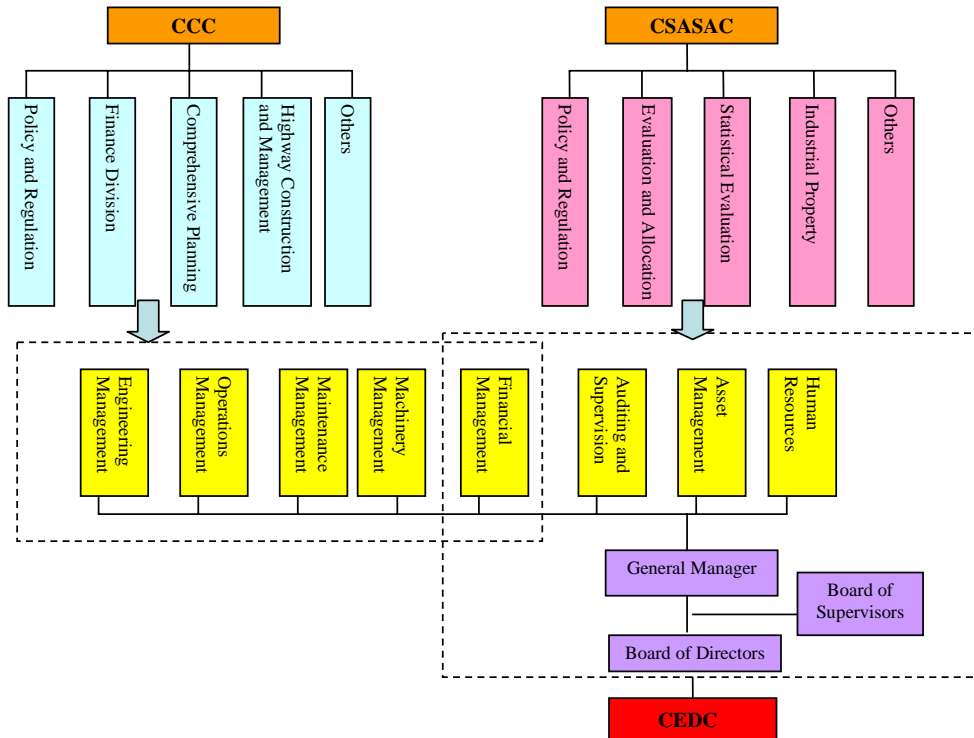
The CEDC charter provides for five assigned functions: (1) financing, (2) construction, (3) operations, (4) maintenance, and (5) loan repayment.

- *Financing.* The primary sources of capital available to the CEDC include the following: (1) equity or registered capital injected by CMG, (2) proceeds from sale of assets, (3) operational income, including funds made available for CEDC projects by the CMG via transfers and other indirect means; and (4) market borrowing from banks and fiscal input from central government (subsidies from Ministry of Construction [MOC]).
- *Construction.* There are five specialized construction subsidiaries of CEDC. At project preparation stage, CCC commissions a project feasibility study and preliminary designs, and then submits the project application to the NDRC for approval. After obtaining the approval, CEDC construction subsidiaries manage the project contract bidding. During the construction period, construction subsidiaries are responsible for technical quality control, construction progress, and FM under the guidance of CEDC.
- *Operations.* CEDC has two specialized operational subsidiaries: Zhongyu and Dongyu. Each operational subsidiary has several operational management centers that are responsible for toll collecting, road maintaining, and logistic work in an administrative area. Each center manages about 12 toll stations. The toll collections are submitted to CEDC headquarters; while the operational expenses are managed by the operational subsidiary within approved operational budgets.
- *Maintenance.* Except for collecting toll fees, operational subsidiaries are also responsible for road maintenance, including daily road maintenance, assets management, organizing specialized maintenance projects, and major repair works. While the Department of Maintenance Management is in charge of overall maintenance plans, standards and rules for examination, and evaluating expressway networks, the operational subsidiaries implement the plans and coordinate open bidding for maintenance projects.
- *Loans repayment.* The Department of Financial Management is responsible for servicing the debt and paying back the loans. .

CMG Supervision Framework

The CSASAC and the CCC are the key CMG agencies with oversight authority over the operations of CEDC. As the owner of the CEDC, the CSASAC is responsible for ensuring that the value of CMG assets in CEDC is well maintained. It therefore focuses on the CEDC's financial operation, significant asset transfers, and partnership opportunities via investment invitation.^{xii} The CCC supervises the technical quality and sector-specific operations of CEDC vis-à-vis sector plan, policy, regulation, road construction, operation and maintenance, toll price setting, and project finance.

Figure 4.2: Overview of oversight structure



As shown in Figure 4.2, the supervision responsibilities of CCC and CSASAC regarding the CEDC are based on their respective administrative domains, with a slight overlap in the area of FM. In fact, the overlap in FM is not very significant because CCC oversight is largely focused on the financing of CEDC projects, while the CSASAC interest covers the comprehensive and corporate-level financial position of CEDC. As discussed later, however, the important area of clarification involves the role of CCC in arranging financing for CEDC projects. Although CCC is not the “owner of the CEDC”, it is nevertheless routinely involved in arranging financing from the CDB and other financial institutions that is on-lent to the CEDC.

Chongqing Communications Commission (CCC)

The CCC plays the role of a sector-specific supervisor, with four out of the 17 CCC divisions involved in supervision activities. These include the following:

- *Policy and Regulation Division:* Organize, coordinate, and administer reconsideration of local regulations and administrative rules of the traffic system; manage and guide the construction in accordance with and support of the traffic laws.
- *Finance Division.* Guide and check financial administration and accounting of traffic-related enterprises; prepare the budget and final accounts of the traffic sector; examine, approve, and assign the plan of transportation construction fund and manage the maintenance fees; arrange traffic trade appropriation; manage foreign exchange, credit, and financial affairs concerning tax revenue and utilization of foreign capitals; and supervise the state-owned assets and the collection of traffic fees.

- *Highway Construction and Management Division.* Draft policies, rules, and technical standards for road construction and management; take charge of sector-management construction projects and of examination of preliminary design documents of large- and middle-scale infrastructure projects; supervise project implementation and manage bid invitation process; manage the technical quality of highway projects; review and approve new toll sites; administer expressways; administer roads; and manage maintenance work.
- *Comprehensive Planning Division.* Draft sector policies; prepare the communication and transportation plan of the city; formulate, synthesize, and balance the medium- and long-term plan, annual plan, and sector investment plan; administer the preliminary permits and works permits, examination and determination, and post construction assessment of the construction projects; administer antipoverty projects; manage the financing and utilization of foreign capital; and oversee international and national economic and technological cooperation and exchange.

Box 4.1: Chongqing Communications Commission (CCC)

Established in August 2000, the CCC has five designated functions: (1) administration and supervision of the construction of transportation projects in expressways, highways, and waterways; (2) urban public-passenger traffic management (including taxis, light-rail trains, and subways); (3) local civil aviation and railway sector management; (4) coordination of a variety of transport models, including civil aviation, railways, expressways, highways, and waterways; and (5) administration of all the transport terminals in Chongqing.

CCC consists of three direct public services units: (1) the Chongqing Road Communications Administration Bureau is responsible for road passage traffic (including urban public transportation and taxi), cargo transportation, transportation services, and vehicle administration; (2) the Chongqing Port Bureau is in charge of managing waterborne shipping transportation; and (3) the Chongqing Highway Bureau is responsible for all routine highway-related (excluding expressway) business administration.

Source: www.cqjt.gov.cn

Chongqing State Asset Administration and Supervision Commission (CSASAC)

The focus of the CSASAC is on the preservation and value appreciation of state-owned assets at the CEDC. CSASAC is in charge of the following: (1) appointing senior managers, (2) supervising large asset changes (including asset sales and acquisitions), (3) monitoring financial and economic performance, and (4) supervising important operational issues through the CEDC Board of Supervisors. A total of four out of the 12 divisions of CSASAC are actively engaged in supervising CEDC.

Other CMG Agencies Involved in CEDC Supervision

Other important municipal government departments that are also involved in the supervision of CEDC operations include (1) CFB, (2) Chongqing Audit Bureau (CAB), (3) Chongqing Bureau of Local Taxation (CBLT), and (4) Chongqing Bureau of Labor and Social Security (CBLSS).

- *CFB:* The CFB’s responsibilities include (1) organizing the execution of the central government’s guidelines, laws, and regulations concerning municipal finance and taxation; (2) managing the municipal revenue and expenditures of Chongqing and formulating annual financial budgets; (3) managing municipal public expenditures;

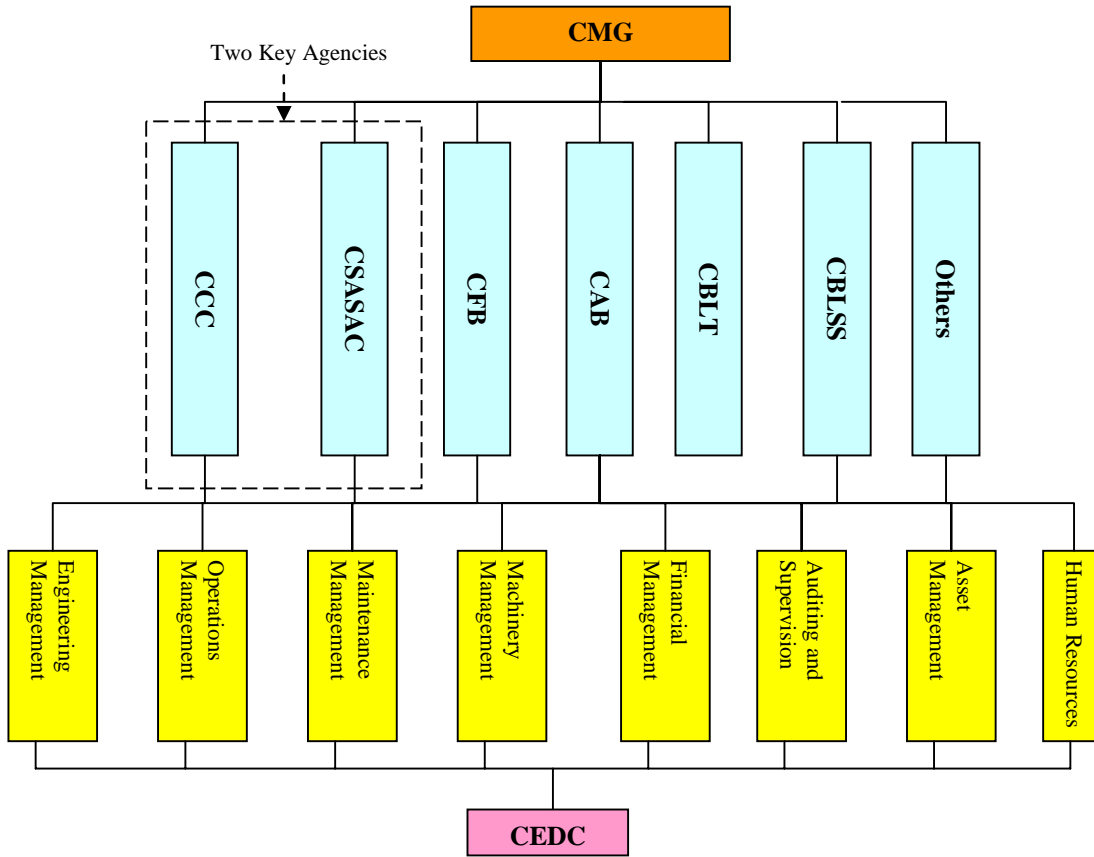
(4) managing SOE assets; (5) managing foreign debts with sovereign guarantees; and (6) drafting local finance and taxation laws, regulations, and rules.

- *CAB*. This bureau is in charge of (1) organizing and leading the audit work across Chongqing; (2) carrying out audit laws, regulations, and audit work principles; (3) carrying out audit supervision to the financial revenue and expenditure of SOEs and institutions; and (4) carrying out audit supervision to budget enforcement and final accounts of construction projects and investment in fixed assets. All completed CEDC road projects must be audited by this bureau to ensure appropriate use of the project funds.

- *CBLT*. The CBLT's role is to (1) implement the state laws, regulations, policies, and guiding principles related to taxation; (2) administer the collection of local tax, additional tax, and all kinds of insurance charges; (3) strengthen macro control taxation; (4) arrange research and study of local taxation policy; and (5) supervise taxpayers and withholding agents in tax payments.

- *CBLSS*. The CBLSS's role is to (1) follow and execute the state's guidelines, policies, laws, and regulations concerning labor and social security; (2) draft local laws, regulations, and basic standards concerning labor and social security; (3) organize the formulation of profession classification and standards of professional skills and technology; and (4) formulate policies concerning the guideline of wages of SOEs and professional wages adjustment. The CEDC human resources costs, including wages and bonuses, are subject to the joint review and approval by CFB, CSASAC, and CBLSS.

Figure 4.3: Municipal governments involved in CEDC operations



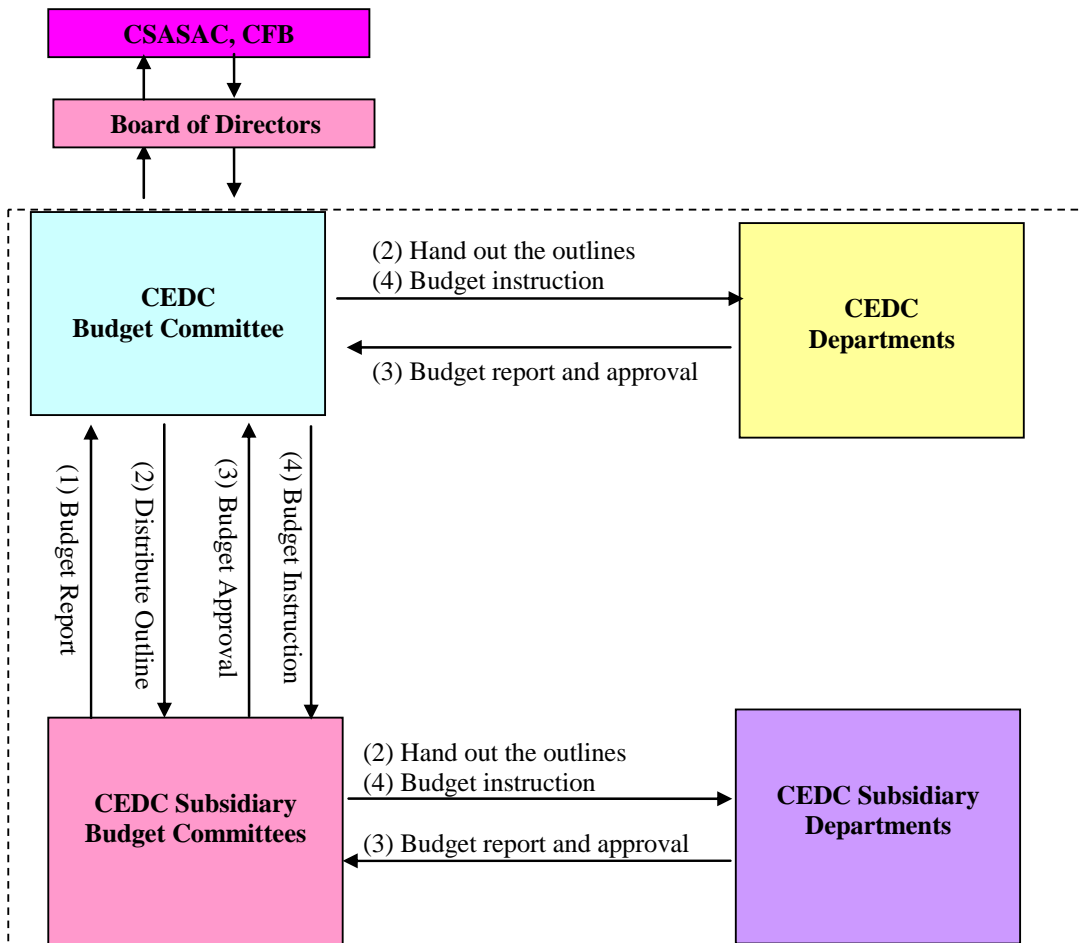
CEDC Budget Process and FM Systems

The CMG financial supervision framework for UDIC consists of three elements: (1) budgeting, (2) FM, and (3) auditing.

Budgeting

The CMG maintains a strict budget supervision system for CEDC and other UDICs. The key steps involved in the budget process are illustrated in Figure 4.4.

Figure 4.4: CEDC budget process



Key Steps in the Budget Process

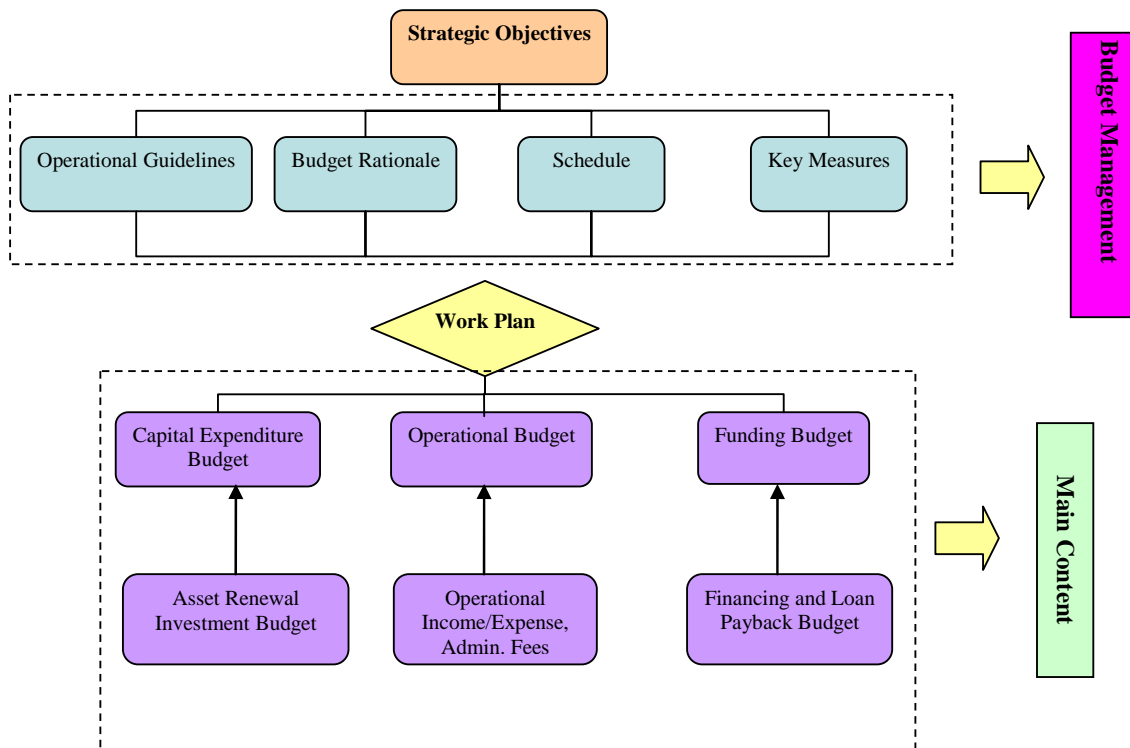
- **STEP 1.** In November of each year, the departments of CEDC subsidiary companies prepare budget plans for the next fiscal year and submit them to their budget committees before they are submitted to the CEDC budget committee.
- **STEP 2.** In the beginning of December, the CEDC budget committee distributes budget outlines to the CEDC subsidiary companies and the CEDC departments.
- **STEP 3.** At the end of December, the CEDC subsidiary companies and CEDC departments submit their revised budget for approval according to the CEDC budget committee outline.
- **STEP 4.** After a month of review, the CEDC budget committee reports to the board of directors for final approval. The human resources budget is further submitted to CSASAC, CFB, and CBLSS for confirmation.
- **STEP 5.** At the end of February or beginning of March, the CEDC’s budget is officially distributed to the departments of the CEDC subsidiary companies.

Comprehensive Budgeting

In 2003, CEDC initiated a comprehensive budget system following the completion of a consulting assignment by PriceWaterhouseCoopers. The three types of budgets include the following: (1) capital expenditure budget, (2) operational budget, and (3) financing budget. To date, however, CEDC has not managed to fully implement all the elements of comprehensive budgeting. The following observations can be made about the current budget structure:

- The primary focus of the budgeting exercise is on the operational budget. The operation budget is fairly detailed and it appears that the CEDC has had some success over the years in cutting costs and managing expenses.
- The capital expenditure budgeting is purely a function of financing one project at a time, in which the process is overwhelmingly driven by the State Council Prescript on Debt Equity Ratio in Infrastructure Projects (described in Annex 8). The various leniencies that have been built into the system over the years have made the process off-budget from the local government budget, and in fact the financing of infrastructure projects is now in many ways becoming off-budget from the off-budget entities of the local government.
- The cash flow difficulties have made it difficult for CEDC to manage a rational, strategic, and planned financing budget. The repayment of loans has become a last-minute exercise of ‘fighting fires’ rather than planning for a smooth repayment of loans. The strategic institutional development issues associated with the underdevelopment of the capital budgeting process are discussed in Chapter 5.

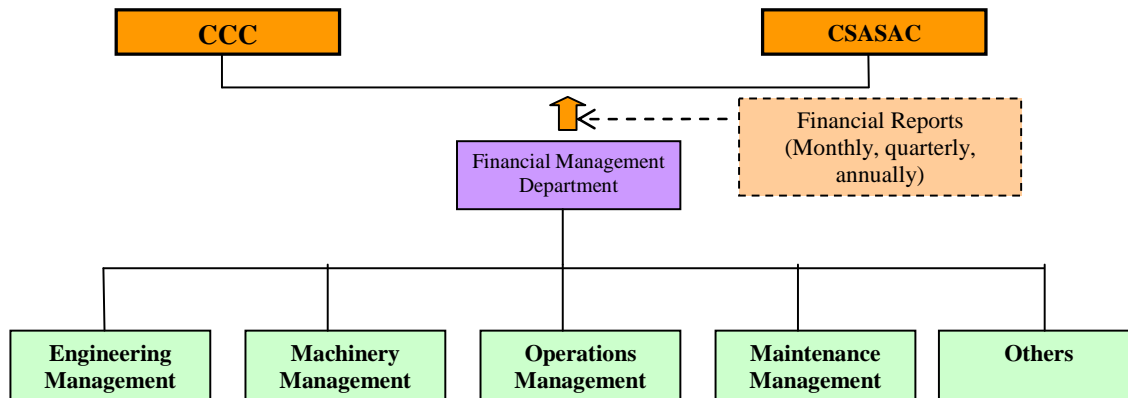
Figure 4.5: Overview of comprehensive budget



Source: PriceWaterhouseCoopers—CEDC Budget Manual
Financial Management

The Financial Management (FM) Department of CEDC provides monthly, quarterly, and yearly financial reports to CSASAC and CCC, as shown in Figure 4.6. The FM Department collects all relevant financial data from the subsidiary companies and other management departments such as engineering construction, operation, maintenance, and machinery electricity, and generates the financial reports. The CEDC FM Department has ten financial professionals.

Figure 4.6: CMG supervision of CEDC financial management



Source: CEDC

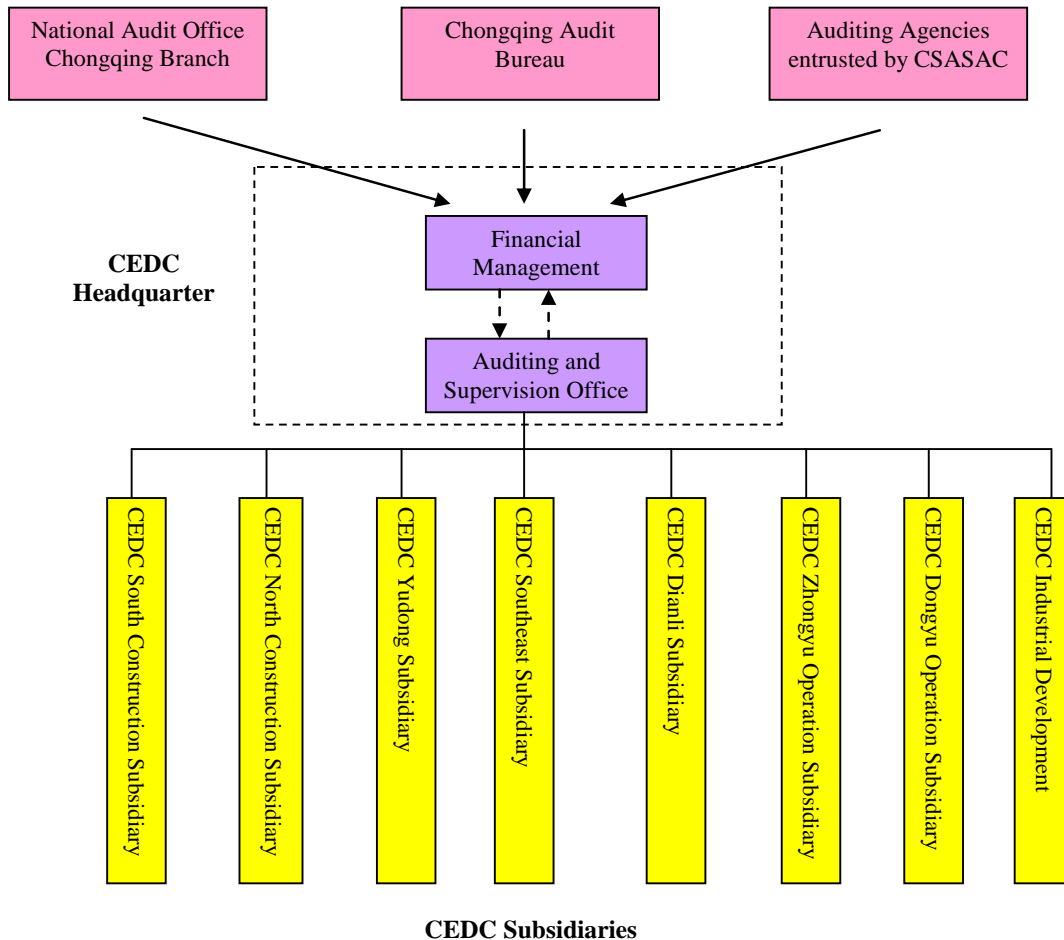
The FM Department has set up strict rules, methods, and regulations for FM. An important FM policy is “Temporary Methods of Managing Financial Funds,” which requires that: (1) CEDC headquarters and its subsidiary companies must only open bank accounts in approved banks that have business relations with the CEDC; (2) operational subsidiary companies must follow the principle of “two lines of incomes and expenditures”, in which all operational incomes must be submitted to CEDC headquarters and all expenditures must be approved and allocated by the CEDC headquarters; and 3) subsidiary companies report to CEDC headquarters for maximum and minimum funding needs in one month. For construction finance, the CEDC has developed and implemented the “Methods of Managing Construction Funds for Expressway,” which consists of (1) methods of managing engineering construction funds, (2) methods of managing land acquisition and resettlement funds of the districts and counties, (3) methods of managing supervision unit funds, and (4) methods of managing cash guarantee deposit against contract default.

Auditing

As described in Figure 4.7, three outside audit agencies are involved in the audits of CEDC. These include the following: (1) Chongqing Branch of National Audit Office (CBNAO), (2) CAB, and (3) an outside auditing agency approved by the CSASAC. In addition, the Audit and Supervision Office of CEDC performs internal audits of the seven subsidiary companies of CEDC. The key audit agencies are described below.

- *CBNAO*. The National Audit Office usually audits CEDC every two years. When it decides to conduct outside auditing of CEDC, it often sends a group of three to four auditors to visit the CEDC headquarters for at least one month to conduct the audit.
- *CAB*. The CAB usually audits the financing of the construction projects after a project is completed.
- *Auditing agencies entrusted by CSASAC*. CSASAC appoints outside auditing agencies to audit three annual financial reports: (1) balance sheet, (2) cash flow statement, and (3) income statement. The Kanghua Audit Company has conducted the financial audits CEDC over the last three years.
- *Audit and Supervision Office*. This internal office conducts auditing of the seven subsidiary companies. It can also hire outside auditing agencies for this service. The audit results are submitted to the CEDC Board of Directors and Board of Supervisors.

Figure 4.7: CMG auditing of CEDC



CMG Financial Assistance to CEDC

As the primary agency responsible for developing the expressway network in Chongqing, the CEDC receives direct (equity) and indirect (policy-based assistance) from the CMG.

The CMG policy-based assistance helps to improve CEDC's operating revenues and support its ability to raise financing for capital expenditures. The CMG assistance underscores the point that the expressway development program is a top priority of the CMG and its execution is the exclusive responsibility of the CEDC. The scale and scope of the expressway development plan—including, very importantly, the timing of the construction projects—is established by the CMG and mandated to the CEDC. The 11th Five-Year Plan of Chongqing establishes a very ambitious target for expressway network development that the CEDC would find difficult to finance without CMG assistance, particularly because of the mandated timing of the construction, which is not always supported by growth in traffic volumes and toll payment affordability. The CMG views the construction of the expressway network as a key economic development priority with positive externalities that far outweigh the financial gains that may be realized by delaying the construction of the expressway projects. The CMG is therefore prepared to help finance the expressway projects and has developed various arrangements to ensure that CEDC is able to secure the necessary financing for its projects.

State Council Prescripts Regarding the Financing of Infrastructure Projects

The State Council Prescript in Annex 8 defines the acceptable debt/equity ratio for infrastructure projects in China. Specifically, the state council rule stipulates that no more than a prescribed percentage of the total project financing should be in the form of debt; i.e., the sponsoring agencies must contribute a minimum of the total project financing from their own capital. Generally, all funds that have not been borrowed can be used to meet the capital (or equity requirements) under the state council regulations. It seems the intent of the regulation was to ensure against excessive leverage in the financing of infrastructure; however, the definition of “capital” or “equity” has been interpreted in more lenient terms over the years. For example, under current interpretation the funds borrowed by the CCC and on-lent to the CEDC for a specific project can be used by CEDC to fulfill the equity or capital contribution requirements under the state council regulations. The CEDC must construct 20 new expressways by 2010 to meet the 11th Five-Year Plan targets.

Financing plan (capital or equity). The CEDC financing plan for constructing the 20 expressways takes advantage of all available financing sources for the capital (minimum of 35 percent of total project financing for toll roads) and debt required to finance the projects. The detailed capital and debt plans for the CEDC are set out in Annex 9. This plan has not reached financial closure, in that the commitments have not been confirmed.

- *MOC.* The MOC distributes a portion of the central vehicle purchase tax to the local governments to support the development of roads, including expressways. This contribution serves as an incentive to the local government to build and maintain expressways in accordance with the national expressway plans. Generally, the MOC provides 10-15 percent of the total estimated cost for the expressways in Chongqing.
- *CMG contribution.* The CMG provides the following types of funds to the CEDC: (1) road maintenance fees, (2) additional fee on commercial vehicles, (3) additional fee on passenger vehicles, (4) key construction funds, (5) municipal fiscal fees, (6)

land transfer fees, (7) tax credits on construction, and (8) “soft loans” from CDB borrowed by other CMG agencies and on-lent to CEDC.

- *Investment from other SOEs and private sector.* This represents equity contribution from partners of joint ventures during the construction period. CEDC currently has three construction projects: Yulin Expressway, Yusui Expressway, and Dianzhong Expressway.
- *CEDC capital.* CEDC has in the past raised capital by selling the operational rights to completed roads. The investors are usually other SOEs, or their subsidiaries or joint ventures.

Foreign Exchange Risk Management Structure

The CEDC, like other UDICs and SOEs in Chongqing, is carrying debt denominated in foreign currency. From 1989 to 2005, CEDC borrowed a substantial amount of foreign debt (US \$0.33 billion and 44 billion Japanese yen) to finance the expressways, such as Chengyu Expressway from the WB, Yuqian Expressway from the ADB and Changwan Expressway from the JBIC. Although foreign debt offered the advantages of longer maturities and lower interest rates, it also presents foreign exchange rate risk to CEDC. There is limited technical capacity in CEDC (as is the case with other UDICs and SOEs) to manage foreign exchange risk. The CFB therefore assists the CEDC in implementing foreign exchange risk management policies and procedures. With CFB assistance the CEDC has hedged its foreign exchange risk exposure by arranging foreign currency swaps with leading investment banks such as Morgan Stanley and Lehman Brothers. For instance, CEDC borrowed 37 billion Japanese yen for the Changwan Expressway Project. During the four years of construction, the exchange rate of Japanese yen against the U.S. dollar fluctuated by 30 percent, ranging from 135 yen per dollar to 102 yen per dollar. In the past four years, a total of 18 transactions of swaps in the amount of 30 billion yen have been executed, which have, according to the CEDC, provided gains of US \$6.9 million (RMB 57 million) to the CEDC. An extract from the *Report of the Chongqing Municipal Bureau of Finance Concerning Management of Exchange Rate Risk of the Foreign Debts of the Municipal Government* is contained in Annex 5.

Summary

Under the guidance of the CSASAC and the CCC, the CEDC is an investing and financing group company, responsible for constructing, operating, maintaining, and financing all expressways in Chongqing. With registered capital of RMB 2 billion and assets of RMB 50 billion, the CEDC is a large-scale SOE. The CEDC is organized according to the modern SOE system in which the general manager takes full operational responsibility under the authority of the board of directors. The CEDC has 12 departments, eight branches, and 4,669 employees. In addition, it owns seven subsidiaries that are consolidated under its financial statements.

The primary sources of capital available to the CEDC include (1) equity or registered capital injected by CMG; (2) proceeds from sale of assets; (3) operational income, including funds made available for CEDC projects by the CMG via transfers and other indirect means; and (4) market borrowing from banks and fiscal input from the central government (subsidies from MOC).

The focus of the CSASAC is on maintaining the value of state-owned assets at the CEDC. CSASAC is in charge of appointing senior managers, supervising large asset changes (including asset sales and acquisitions), monitoring financial and economic performance, and supervising important operational issues through the CEDC Board of Supervisors. A total of four out of the 12 divisions of CSAASC are actively engaged in the supervision of CEDC. The CMG maintains a strict budget supervision system for CEDC and other UDICs.

The capital expenditure budgeting is purely a function of financing one project at a time in which the process is overwhelmingly driven by the State Council Prescript for capital contribution by the sponsor agency to all infrastructure projects.

The CEDC receives direct (equity) and indirect (policy-based assistance) from the CMG. The CMG policy-based assistance helps to improve CEDC's operating revenues and support its ability to raise financing for capital expenditures. The CMG views the construction of the expressway network as a key economic development priority, with positive externalities that far outweigh the financial gains that may be realized by delaying the construction of the expressway projects. The CMG is therefore prepared to help finance the expressway projects and has developed various arrangements to ensure that CEDC is able to secure the necessary financing for its projects. The CEDC must construct 20 new expressways by 2010 to meet the 11th Five-Year Plan targets.

CHAPTER 5. CREDIT ANALYSIS AND INTERNATIONAL COMPARISON OF CEDC

Introduction

This chapter provides a development-stage Financial Accountability and Capability Evaluation (FACE) of the CEDC conducted by the international rating agency S&P to provide a market-based assessment of the strength and weakness of CEDC vis-à-vis its ability to borrow from the market based on the strength of its corporate financial position. The analysis was conducted by S&P on behalf of the WB with the collaboration and cooperation of the CFB, CSASAC, and the CEDC. The S&P analysis and all the related comments and observations contained in this report are strictly for development purposes; i.e., the S&P analysis presented is not for the consumption of potential investors interested in lending to or partnering with CEDC. The S&P ratings given to CEDC have been removed to underscore the “development stage” nature of the credit analysis exercise.^{xiii} The decision to invite S&P to conduct this analysis was based on the following considerations:

- S&P is the market leader in the field of international credit analysis of private and public organizations, including central and local governments and their entities.
- As the UDICs move toward credit-based market borrowings, it is important to establish market-based benchmarks and analysis models which present the market’s views and approaches to analyzing credit risk in public entities. The S&P analysis presents the global best practices applied to the Chinese UDIC context.
- The framework established by a leading international rating agency can provide a useful model for the Chinese banks in their credit analysis of UDICs.

The chapter then provides a comparison of CEDC with South Africa National Roads Agency Limited (SANRAL)—a publicly owned enterprise with a similar profile and mandate to CEDC and an investment-grade credit rating—to highlight the key reforms that are required to help CEDC operate at international standards. The chapter is divided into four sections.

- **Section 1** contains a development-stage credit rating analysis of the CEDC by S&P to present a picture of the current status of the CEDC.
- **Section 2** presents the FACE of the CEDC conducted by S&P. FACE is an important tool developed by S&P that highlights the gaps in the institutional development of government entities vis-à-vis comprehensive financial management capacity.
- **Section 3** presents a comparison of CEDC with SANRAL.
- **Section 4** presents the liquidity analysis of the CEDC.

SECTION 1—DEVELOPMENT STAGE CREDIT ANALYSIS OF THE CEDC BY STANDARD AND POOR’S

Key Rating Factors

Weaknesses

- Inflexible capital expenditure plan
- Pricing regulations limiting price increases
- High traffic-volume risk for some of its planned expressways in the medium term
- Appetite for high financial leverage
- High financial profile risk

Strengths

- Good construction-project-management track records
- Strong government operational support
- Moderate financial flexibility as a result of government’s and bankers’ existing support

Rationale

CEDC’s stand-alone credit rating reflects the significant operational and financial pressure under which CEDC operates as a result of its inflexible capital expansion plan, pricing restrictions by regulators, high traffic-volume risk, high financial leverage appetite, and weak liquidity position. These weaknesses are balanced by CEDC’s good construction management track record and strong governmental ongoing support, operationally and financially.

CEDC is facing significant operational and financial pressure as a result of the inflexible capital expansion of expressways in the city-province of Chongqing. CEDC plans to build more than 1,200 kilometers of expressways during the five years ending in 2010. At the same time, pricing restrictions mean that the commercial viability of these already high-risk greenfield projects is reduced. The expansion plan is in accordance with the PRC central government’s 7918-expressway network plan, which is supportive of the rating. The timing of completion, however, is at the discretion of the CMG.

CEDC is subject to significant traffic-volume risk. The company has completed a number of expressways in recent years, which are operating in their ramp-up periods. These roads have yet to become profitable. In addition, CEDC is simultaneously constructing more than 20 new expressway projects, mostly connecting the less developed area of the Three Gorges and the minority settlement areas of the city district of Yuzhong. This will likely put additional pressure on CEDC’s profitability over the medium term despite the expected healthy economic growth over the medium term (i.e., the next two to three years). In recent years, Chongqing experienced GDP growth in excess of 10 percent. In 2005, the city of Chongqing had 512,200 registered vehicles, a 47 percent growth from the previous year.

CEDC has a high leverage target of 65 percent total debt to total capital relative to its weak business profile. This target applies to new capital projects only. With additional working capital and other short-term funding (funding that matures over the next 12 months), CEDC's financial leverage was high, at about 75 percent in fiscal 2006. Importantly, the heavy borrowing to fund its significant five-year capital program of Chinese RMB 87 billion will continue to weaken CEDC's financial-risk profile over the medium term.

CEDC's vulnerable financial profile is a major constraint on its rating. The company's earnings before interest, taxes, depreciation, and amortization (EBITDA) interest coverage averaged about 1.6x over the past four years, and hit a low of 0.75x in fiscal 2006. The company's funds from operations (FFO) turned negative in the past two years. CEDC has been relying on selling roads and heavy borrowing to maintain a positive cash flow. CEDC is aware of its liquidity position, and is currently considering a number of strategies to address this issue.

CEDC's good construction-management track record is a strength of its rating. Positively, CEDC has been using established construction-contract and project-management procedures. This has led to the successful completion of a large number of expressways being constructed without significant cost overruns or delays. Nevertheless, CEDC faces operational challenges in stepping up this effort over the next five years.

CEDC's rating is supported by ongoing governmental support. In particular, operationally the government holds out the strategic importance of CEDC's work to government policies. This has attracted confidence from bankers to support the heavy borrowings of CEDC. In addition, the government's willingness for CEDC to work with private sector facilitates the company's plan to sell completed roads to fund its heavy capital-expenditure plan. Financially, the government provides direct equity injections to CEDC through various government departments to an extent that is predetermined at the beginning of each new project.

CEDC is considered a public-policy-based institution under S&P's rating criteria for government-related entities. Importantly, CEDC is operationally linked to the government with its board made up of representatives from various government departments. Its chairman is a representative from the CSASAC. The company's corporate governance framework and internal controls are largely dependent on the existing audit framework for government departments. The company's highly leveraged capital-expenditure program plays a strategically important role as part of the government's policy. Toll road development is seen as strategically important to facilitate economic growth both at the local and central government level.

Liquidity: NA

CEDC's adequate liquidity position reflects the company's access to a committed long-term debt facility of more than RMB 30 billion for its capital-expenditure plan over the next five years. With access to undrawn long-term facilities, the company has sufficient cash to cover its liquidity requirement over the short to medium term. In addition, at the

end of December 2006, CEDC had access to about RMB 2.82 billion in cash, and sellable short-term financial securities of RMB 300 million, which together covers 91.4 percent of its short-term debt and debt maturing within the next 12 months. To meet its liquidity needs, CEDC is dependent on its ability to increase debt and sell a portion of its completed expressways to cover its capital expenditure and debt repayments. Operational cash flow is insufficient to cover its major liquidity requirement, being capital investment. Nevertheless, its liquidity position is relieved by the preferential terms and conditions of its debt, including the interest-only period of some of its long-term debt. If CEDC were to raise short-term debt to cover long-term debt repayments by the company, it would likely escalate its liquidity problem, which will weaken its liquidity further beyond the medium term.

Rating Transition: NA

CEDC's rating primarily reflects the ongoing support from the company's government owner and primary lender (CDB), both of which provide the necessary financial flexibility and liquidity required by CEDC. The ongoing support includes the willingness of both parties to continue to support the significant funding, liquidity, and debt servicing requirements of the company over the next three to five years. Ongoing funding and liquidity support will primarily be in the form of a mix of additional debt facilities from its bankers, additional equity injections from the government, and potential sales of equity interests in existing toll roads. Although all parties are considering various funding options at the end of year five, no definitive plans are currently in place. In the medium to long term, the underlying fundamentals of the toll roads and CEDC capital and funding structure will be critical for the ongoing sustainability and longevity of the company. In particular, after the construction of the toll road has been completed, any negative deviation of traffic volume from original projections would put additional pressure on CEDC's financial profile in the long term. Limited information is available to S&P at this stage, however, to accurately assess whether insolvency could become an issue beyond 2010.

Should the ongoing funding and liquidity support, and willingness of the government or its bankers diminish, there would likely be a downward transition of the underlying rating. The rating transition would also be reviewed once CEDC establishes steady-state traffic and revenue flows from its various toll roads as they are completed and an appropriate capital structure is implemented relative to the underlying cash flows.

RATINGS INFORMATION

Chongqing Expressway Development Co. Ltd.

Business risk profile:

NA

Financial risk profile:

NA

BUSINESS DESCRIPTION

CEDC, a wholly owned entity of the CMG, was incorporated in 2000 to build, operate, invest, and finance all the expressways in Chongqing, one of only four provincial-level cities in China that are under direct administration of the central government. In particular, CEDC was to build expressways as part of the central government's plan to facilitate economic growth in the western part of China. By 2006, it had completed 750 kilometers of expressways.

CEDC's expansion plan accords with the central government's 7918-expressway network plan, which is a part of China's 11th Five-Year Plan. The timing of completion is at the discretion of the CMG. Importantly, both the central government and the CMG share the view that the construction of a healthy expressway network would facilitate economic growth.

A board of directors and a board of supervisors, both appointed by the CMG, oversee CEDC's operations. CEDC is under the supervision of the CCC and the CSASAC.

BUSINESS RISK PROFILE

Regulation

CEDC's operation is strategically important to the CMG given the government's view that a healthy expressway network is key to facilitating economic growth in the city-province. Importantly, CEDC is the largest of the eight government-owned corporations identified by the CMG as fundamental to Chongqing's economic growth. As a result of CMG's view on the importance of an expanded expressway network, it has granted advantageous policies to assist with CEDC's heavy capital investment. These policies include lower tax rates, preferential funding through the CDB, and the direct injection of registered capital by the CMG and the central government.

CMG's mandate for CEDC to build over 1,200 kilometers of expressway over the next five years, in conjunction with the central government's uniform pricing policy, creates significant financial pressure for CEDC. This is a major constraint on CEDC's stand-alone credit rating. CMG has mandated CEDC to build 2,000 kilometers of expressways by the end of the 11th Five-Year Plan (2010). Toll affordability concerns—expressed by relatively low-income households in Chongqing—caused CMG, however, to limit toll

rate increases. As a result, CEDC is not able to recoup sufficient return from its toll revenue, and will likely continue to make losses over the medium term.

CEDC has some flexibility to determine the pricing structure within the regulatory framework, which is a strength of its rating. While there are restrictions on the average toll rates, CEDC could vary toll charges for different categories of vehicles. Any change must be submitted for approval to various government departments, including the CCC and the CMG.

The fragmented regulatory environment that CEDC operates in could impact its timely response to the difficulties CEDC faces as a result of regulatory restrictions. As a government-owned entity, CEDC is overseen by a number of government departments and the pricing regulator. CEDC directly reports to the CSASAC, and its operational quality is regulated by the CCC. Its toll-rate policies are mandated by the central government's transportation department, which are, in turn, applied and interpreted by the CMG and implemented by the local pricing bureau and the CCC.

Markets

Economic growth prospects are good in Chongqing, supporting traffic growth on CEDC's expressways in the long term. In recent years, Chongqing experienced GDP growth in excess of ten percent. In 2005, the city of Chongqing had 512,200 registered vehicles, a 47 percent growth from the previous year. This is expected to continue over the medium term.

CEDC's expressways are geographically dispersed within the small area of the city of Chongqing. As a result, CEDC is exposed to areas where traffic volume has stabilized, as well as less developed areas where traffic volume is unproven. The most operationally proven road of Chengyu, which opened in 1994, has an average daily traffic volume of more than 23,000 vehicles, where some roads could experience average daily traffic flows as low as about 3,000 vehicles. While portfolio diversification partly mitigates this risk, CEDC is under pressure to sell the more commercially viable sections of its expressways to fund its challenging capital expenditure program. Since the inception of the company in 2000, the CEDC has experienced traffic growth of about 40 percent.

Operations

Since the establishment of CEDC in 2000, the company has undertaken organizational restructuring that could better support its strategy. Since 2003, CEDC has separated its expressway construction activities and the operation of completed roads. This separation allows business units to focus on their delegated tasks and improve economies of scale. CEDC has plans to further refine the structure in order to achieve economies of scale given the large number of construction projects that are taking place simultaneously.

CEDC's good construction-management practices and track record are a strength of its rating. Positively, CEDC has established and used construction-contract and project-management procedures, leading to successful completion of a large number of expressways being constructed without cost overruns or delays. The procedures include a

stringent approval process, a reporting threshold for design changes, and a three-level, construction-progress monitoring system that involves the CCC. Nevertheless, CEDC faces operational challenges in this effort over the next five years.

CEDC is exposed to a high level of construction risk. Despite the fact that a stringent approval-monitoring process is in place, its effective implementation is a challenge, because more than 20 expressways projects are currently in progress. Compared with the project finance approach, which is the usual approach for funding toll-road construction internationally, CEDC has assumed a high level of construction risk. While a ten percent contingency has been built into the contract, even small changes in the scope of a project could cause cost overruns. In addition, suing for damages is difficult to enact in the PRC legal environment if contractors and subcontractors are not of the expected acceptable quality. This is partly mitigated by the high level of competition among contractors in PRC, where replacing a contractor with little delay is not unusual.

The complex geological environment in Chongqing creates additional pressure for CEDC in the guise of high construction costs. As a result of this complex geological environment, CEDC is required to build many bridges and tunnels as part of its expressways. The initial construction cost of CEDC's planned and operational toll roads is considered high compared to domestic peers in PRC. Estimated construction costs for some sections of the roads could be as high as RMB 100 million per kilometer. In addition, the complex geologic conditions traditionally separate the less developed area of municipal Chongqing from the more developed area surrounding the Yuzhong district city center. This gives rise to the dilemma that the less commercially viable expressways would more likely be retained by CEDC, as these are not as attractive to private-sector buyers.

CEDC's focus on road maintenance is somewhat lacking while it is under pressure to construct new expressways. CEDC has undertaken minimal road maintenance and upgrades since its inception. This is partly because of the newness of many of its roads. However, its oldest expressway, Chengyu, was completed in 1994, and was given a major upgrade only recently. Nevertheless, the level of maintenance undertaken by CEDC is acceptable to the local market.

A number of avenues are resulting in toll-fee leakage for CEDC. These include exempted vehicles, vehicles reporting a false weight, and toll collection fraud. Although difficult to account for, this is believed to be costing CEDC substantial toll revenues. This issue will be partly alleviated by improving toll facilities. CEDC plans to install new facilities at tolling stations to avoid false reporting of vehicle weights (toll rates are categorized by weight). Toll collection fraud is addressed by employee training, improving cash collection procedures, and using investigation officers.

Competitive Position

CEDC's granted monopoly position as the developer and operator of all expressways within Chongqing is a key strength of its rating. Despite the possibility of future

expressway operators, this would likely occur through CEDC selling the toll road concession. As such, the barriers to entry for a potential new operator are very high.

The potential for alternative roads to divert traffic from CEDC's expressways looms as a threat. This would be a function of low disposable incomes relative to toll rates. In particular, the planned expressways will link the less developed areas of Chongqing to the Yuzhong city district in order to facilitate economic growth in those areas. This risk would ease as the economy grows over time, as the condition of CEDC's expressway is superior to alternative roads.

FINANCIAL RISK PROFILE

Financial and Accounting Policy

CEDC adheres to its high financial-leverage target of 65 percent total debt to total capitalization when raising new funding for its investment in new projects. The high leverage target is reflected in CEDC's total-debt-to-total-capitalization ratio of 75 percent in fiscal 2006.

Profitability and Cash Flow Protection

The significant increase of debt in recent years and the greenfield nature of a number of its completed expressways are evidenced by CEDC's weak profitability and cash-flow protection. CEDC's high cash-flow leverage resulted in negative FFO, significantly reduced from a weak FFO-to-debt ratio of 4.1 percent in fiscal year 2003. The company's EBITDA-to-interest coverage is at a weak 0.75x. Already captured in this ratio is the effect of preferential interest bank lending from the CDB. CEDC's profitability and cash protection is expected to continue to be at a weak-to-vulnerable level over the next few years, and could worsen depending on the rate at which CEDC and the government are willing to slow down the significant capital spending program.

Capital Structure and Liability Management

CEDC's highly leveraged capital structure is driven by its significant level of capital expenditure and its preference for debt financing. Capital expenditure over the past four years totaled RMB 28.9 billion. Importantly, capital expenditures in the past five years represent about 36 percent of the total kilometers of expressways CEDC requires to construct until 2010. Capital spending over the next five years will likely escalate from the previous level, causing a more aggressive capital structure.

In fiscal 2006, 86.5 percent of CEDC's total debt is long term (25 to 30 years) with an interest-only period that relieves CEDC from immediate principal repayment obligations. This is usually six to seven years; however, this could put pressure on CEDC's liquidity position as debt starts amortizing from 2010.

CEDC uses interest-rate and foreign-exchange hedges only to hedge its two foreign currency borrowings, reducing its exposure to movements of the Japanese yen against the RMB. Nevertheless, it has not hedged its exposure to U.S. dollar debt repayments, as CEDC has taken the view that the RMB has been undervalued against the U.S. dollar. This is not considered to be aggressive given the current market environment. CEDC is

subject to interest-rate risk, as all of its domestic borrowings are subject to interest-rate movements. The company is vulnerable to interest-rate risk under the rising interest-rate environment in the PRC, as a large proportion of its domestic borrowings are subject to a floating rate of interest.

Financial Flexibility

CEDC's moderate financial flexibility is mainly supported by government preferential treatments and direct capital injections. This is offset by its inability to defer its expected capital expenditure. Importantly, predefault workout of borrowings extended by policy banks is a common approach taken in the PRC. This provides some financial flexibility, although the form and timing of this support is uncertain.

The PRC central government and CMG's further provision of registered capital, to the extent of about eight percent of total investments, that has not been contributed adds to CEDC's financial flexibility. In addition, the government's commitments to CEDC sustain the confidence of other investors in providing debt or equity capital support to CEDC. This includes potential joint-venture partners.

CEDC's financial flexibility also depends on its ability to sell equity interests in some of its project companies that hold the toll concessions. CEDC is actively seeking private-sector participation in projects that are developed or under development. This initiative is supported by the CMG. Because of high traffic risk, however, CEDC's ability to sell these roads is curtailed.

Long-term debt provided by CDB to CEDC supports CEDC's financial flexibility in that an interest-only period of generally six or seven years reduces debt-service pressure on CEDC. Moreover, borrowings from CDB, about 64 percent of CEDC's total debt, carry preferential interest rates. CDB's preferential treatment of CEDC debt relieves pressure on CEDC's liquidity position, and means that its capacity to carry the high debt burden is greater than it otherwise would be.

Table 5.1: Key financial statistics

Chongqing Expressway Development Co. Ltd.

	--Year ended December 31 --			
	2006	2005	2004	2003
<i>Income statement (RMB mil.)</i>				
Gross revenues	1,367.04	1,178.82	974.07	1,483.49
Operating expenses (excluding DD&A)	390.88	426.96	300.94	255.02
Depreciation and amortization	1,115.59	1,007.97	819.51	800.66
EBITDA	1,307.68	2,800.76	889.64	1,214.32
Interest incurred	1,519.60	933.56	789.74	644.44
Net interest incurred	1,453.75	800.65	753.75	644.44
Net income	(574.47)	1,114.54	(538.84)	277.62
<i>Earnings protection</i>				
Pretax interest coverage (x)	0.01	1.45	0.20	0.64
Adjusted pretax interest coverage (x)	0.01	1.45	0.20	0.64
Net pretax interest coverage (x)	(0.03)	1.52	0.16	0.64
Adjusted net pretax interest coverage (x)	(0.03)	1.52	0.16	0.64
EBITDA interest coverage (x)	0.75	2.53	1.24	1.88
Total debt/EBITDA (%)	3,084.51	952.73	1,524.01	1,145.95
Return on average equity (%)	(5.22)	12.38	(6.26)	5.83
Annual expenditure growth (excluding DD&A) (%)	(8.45)	41.88	18.00	N.A.
Total operating expenditures/revenues (%)	28.59	36.22	30.89	17.19
<i>Balance sheet (RMB mil.)</i>				
Cash and equivalents	2,820.51	2,895.48	2,822.93	1,904.91
Net plant	41,360.60	29,115.13	21,319.05	21,703.73
Total assets	49,985.60	37,210.52	26,765.13	26,912.38
Short-term debt	3,414.97	3,159.42	1,537.41	932.74
Long-term debt	31,587.29	19,314.91	13,360.68	12,982.84
Common equity	11,687.00	10,307.64	7,691.51	9,519.67
Total capitalization	46,689.26	32,781.97	22,589.59	23,435.25
<i>Balance-sheet ratios (%)</i>				
Short-term debt/total capital	7.31	9.64	6.81	3.98
Long-term debt/capital	67.65	58.92	59.15	55.40
Common equity/total capitalization	25.03	31.44	34.05	40.62
Total debt/total capitalization	74.97	68.56	65.95	59.38
Adjusted total debt/total capitalization	74.97	68.56	65.95	59.38
Net debt/net total capitalization	73.36	65.51	61.09	55.78
<i>Cash flow (RMB mil.)</i>				
Net income	(574.47)	1,114.54	(538.84)	277.62
Depreciation	1,115.59	1,007.97	819.51	800.66
Funds from operations (FFO)	(196.24)	(83.65)	195.81	572.84
Common dividends	0.00	0.00	0.00	0.00
Net cash flow (NCF)	(196.24)	(83.65)	195.81	572.84
Net capital expenditures (capex)	11,596.54	9,046.68	3,923.56	4,349.26

Discretionary cash flow	(11,807.81)	(9,480.91)	(3,799.46)	(3,005.29)
<i>Cash flow adequacy</i>				
Capex/average total capital (%)	29.18	32.68	17.05	37.12
NCF/capex (%)	(1.69)	(0.92)	4.99	13.17
NCF/capex and net acquisitions (%)	(1.69)	(0.92)	5.07	13.29
FFO/total debt (%)*	(0.56)	(0.37)	1.31	4.12
FFO/net debt (%)*	(0.61)	(0.43)	1.62	4.77
FFO interest coverage (x)	0.87	0.91	1.25	1.89
FFO net interest coverage (x)	0.87	0.90	1.26	1.89

Note: DD&A=Depreciation, depletion, and amortization; EBITDA=Earnings before interest, taxes, depreciation, and amortization. *FFO/debt ratios previously reported as average debt.

Table 5.2: Peer comparison

	Chongqing Expressway Development Company	Chinese Future Corp.	Road King Infrastructure Ltd.**
Corporate credit rating	NR	BB/Stable/--	BB/Stable/--
Country	Chongqing, China	Hangzhou, China	China
Concessions	All roads in CQ	1	19
Length of network (km)	750	123	988
Annual average daily traffic (vehicles)	215,591	N.A.	367,500
Major shareholders	Chongqing Municipal Government 100%	73.7% Wifefait Group Ltd.; 26.3% The Children's Investment Master Fund	47% Wai Kee; 25% Shenzhen Investment Co.; 11% Value Partners
Key financial figures	(RMB mil. fiscal 2006)	(RMB mil. fiscal 2006)	(RMB mil. fiscal 2006)
Revenues	1,367.04	1,157.25	567.47
EBITDA	1,307.68	950.64	(8.33)
Net income	(574.5)	13.88	721.08
Total assets	49,986	7,788	11,020
Total debt (gross)	35,002	6,497	3,158
Total debt (net)	32,182	6,146	2,039
Funds from operations (FFO)	(196.2)	465.97	316.8
Capital expenditures (capex)	11,596.5	3.23	4.9
Dividend payout	0	0	296.9
Financial ratios (%)			
EBITDA margin	71.4	82.15	-1.47
FFO net interest coverage (x)*	0.87	1.92	10.31
Net debt/EBITDA	30.85	6.6	-289.82
FFO/average net debt	-0.7	7.43	39.37
Total debt/total capital	75.0	86.23	31.67

Note: NR=Not Rated. The public corporate credit rating (CCR) of CEDC could be different from the stand-alone credit rating, as it will incorporate extraordinary government support. *Interest coverage including capitalized interest. **Road King Infrastructure Ltd.'s CCR is affected by its exposure to the Chinese property sector. Road King Infrastructure Ltd.'s investments in toll roads are equity accounted.

Disclaimer Credit Analysis:

The Credit Analysis in this report is an evaluation of the estimated creditworthiness of Chongqing Expressway Development Co. Ltd (“CEDC”) and the actual credit quality may be higher or lower; the Credit Analysis (i) is not a prediction of the actual performance of the Company in the future; (ii) is not a credit rating; (iii) shall not be construed to have been undertaken with the rigor and level of detail required when Standard & Poor’s provides a rating; (iv) is an opinion and not a verifiable statement of fact; (v) is based on information supplied to Standard & Poor’s by or on behalf of CEDC and upon publicly available information obtained by Standard & Poor’s from sources it considers reliable; (vi) is not a recommendation to buy, hold, or sell any financial obligation; (vii) is provided without any express or implied warranties whatsoever; and (viii) does not constitute investment, financial or other advice. Standard & Poor’s (i) does not and cannot warrant the suitability of the Credit Analysis for any particular purpose or use; (ii) does not perform an audit in connection with any Credit Analysis and the Credit Analysis does not represent an audit by Standard & Poor’s; (iii) relies on World Bank, CEDC, and other experts for the accuracy and completeness of the information submitted in connection with the Credit Analysis; (iv) undertakes no duty of due diligence or independent verification of any information; and (v) does not and cannot guarantee the accuracy, completeness, or timeliness of the information relied on in connection with the Credit Analysis or the results obtained from the use of such information. Any use or distribution of the Credit Analysis must be in compliance with all applicable laws. The Credit Analysis has been conducted as an independent analytical service. Other than conducting the Credit Analysis and an Extended Financial Management Analysis (referred to in a separate report) Standard & Poor’s has had no other involvement in the matters addressed in the World Bank report to which this report is appended

SECTION 2: EXTENDED ANALYSIS OF CEDC: EXTENDED FINANCIAL MANAGEMENT ASSESSMENT

July 6, 2007

Analytical Report

Extended Financial Management Assessment (EFMA) for Government-Related Entities (GREs) is a comprehensive assessment of GRE's financial management sophistication and quality. S&P evaluates challenges, strengths, and risks of the entity's financial management systems and practices in the context of global good practices and the local environment.

Overall EFMA scores:

0:Underdeveloped or Evolving/ 1:Basic/
2:Intermediate/ 3:Sound/ 4:Sophisticated/
5:Advanced

GRE brief

- **Status:** SOE of CMG, set up to build, operate, invest, and finance expressways in the city of Chongqing.
- **Major revenue sources:** toll fees from operating expressways.
- **Major funding sources:** operating revenue from toll collections, government-injected equity funding, borrowings from CDB.
- **Summary financial statistics (mil. RMB)**

	2006	2005	2004
Gross revenues*	1,367	1,179	974
Operating expenses	391	427	301
EBITDA	1,308	2,801	890
Interest expenses	668	658	547
Cash balances	2,821	2,895	2,823
Total debt	35,002	22,474	14,898
Capital expenditure	11,597	9,047	3,924
EBITDA interest coverage (x)**	0.75	2.53	1.24
FFO to debt (%)	-0.56	-0.37	1.31
Capital expenditure to average total capital (%)	29.18	32.68	17.05

FFO=Funds from operations. NA=Not available. *excludes other income. **interest paid includes capitalized interest.

Sophistication and Adequacy of Systems & Policies

Strategic management, organizational structure, and corporate culture	NA
Financial policies and planning	NA
Operational management	NA
Transparency and reporting	NA
Ownership structure and government influences	NA
Key governance structure, independence, and effectiveness	NA

OVERALL SCORE: NA

(0: Underdeveloped or Evolving/ 1: Basic/ 2: Intermediate/ 3: Sound/ 4: Sophisticated/ 5: Advanced)

Summary

S&P considers CEDC's overall financial management practices to be a mix of basic, intermediate, and sound levels. This reflects CEDC's financial management procedures, systems, and policies, which are still in their development stages. CEDC, however, continues to make improvements. CEDC takes a piecemeal approach, as opposed to the holistic approach that is observed by international peers with more sophisticated management practices. Nevertheless, policy, systems, and procedures are in place to measure, monitor, and manage major risks such as road-construction project management, operating costs management, revenue forecasts, and funding strategies. These are all monitored in sufficient detail but over a short-term period. This silo approach relies on management's experience and expertise to ensure a smooth connection between the major risk management systems, as opposed to institutionalized processes. This gives rise to more significant key man risks compared with its international counterparts.

Decision making is heavily driven by the government's mandate to build more than 1,200 km of expressways in the next five years to 2010. This challenging objective puts CEDC under significant operational and financial pressure, where having more developed financial management policies and procedures may not alter its financial position significantly.

Implementation of its existing processes and policies is generally sound because of CEDC's simple and easy-to-understand financial and operational policies. Stringent monitoring procedures mandated by the government also help to ensure effective policy implementation.

Overview of Key Strengths

CEDC's key strengths are in operational management and in having a clear objective that is communicated through different levels of the organization. The clear communication of CEDC's operational objective down the reporting line enables the company to focus on meeting its challenging targets by 2010.

CEDC's stringent monitoring system on the progress of construction activities appears to have been well implemented, which is evidenced by its track record of completing a large number of expressways within a short time and without significant cost overruns.

Government-imposed reporting and audit policies and systems provide additional transparency to important stakeholders, despite the lack of public reporting.

Overview of Key Weaknesses

Major weaknesses of CEDC's FM include underdeveloped liquidity management practices and debt management framework, and a lack of medium-term focus on financial planning.

CEDC's financial planning focuses on the short term. While construction costs and investments are mostly developed with a detailed five-year plan, other parts of financial

forecasting fail to match the same level of stringency. These include operating cost forecasts, which are only planned in detail for the next year and reviewed at board meetings twice a year.

CEDC's financial planning exposes the company to a high level of unexpected downside risk compared to its international counterparts. The company currently has not implemented sensitivity testing of financial forecasts. This exposes the company to added liquidity and financial risks should the complicated and extensive expressway construction projects experience cost overruns and delays, or if interest rates or funding costs continue to increase in China. This is mitigated somewhat by a level of contingency that has been built into the costing of its projects.

Debt management is unsophisticated, with a concentration of liability base. The lack of strategy in such areas as debt maturities, interest rate combinations, and liability diversification, which are considered as international good practices, is a constraint. This does not affect CEDC's financial profile significantly in the short term, however, as the company has put in place long-dated debt, where a large proportion of the principal repayment will not begin to come due for the next five years.

CEDC's emphasis on liquidity management has somewhat lagged given that it is a major financial risk for the company. Policies on the level of liquidity risk tolerance are lacking. In addition, access to established standby liquidity is limited. While there is evidence that important stakeholders are working together to formulate strategies to assist CEDC in facing liquidity issues, there are at this stage no concrete proposals.

Peer Comparison

Relative to its peers in the PRC, certain aspects of CEDC's FM exceed an average level, while other aspects are below average. In particular, corporate governance is considered stronger than PRC peers given CEDC's closeness to the government and the fact that its assets are strategically important to both the CMG and the central government. This leads to the stringent audit and reporting process mandated by the governments.

CEDC's sophistication and performance in financial policies and planning is somewhat similar to GRE peers operating within PRC. These entities, like CEDC, have been improving their financial planning rapidly in recent years. Nevertheless, a high level of sophistication can only be attained over time.

In the global context, CEDC's financial policies and planning lack a level of sophistication in the areas of forecasting and debt and liquidity management. For example, in the area of forecasting, long-term forecasts for a toll road company is usual practice. In fast-growing environments like the PRC, testing of forecasts is usually seen as a financial planning tool to mitigate unexpected financial risks. In addition, global best practice would see tolerances for liquidity and cash flows formulated and communicated within the organization and even publicly. Nevertheless, some aspects of CEDC's capital-expenditure planning adhere to international good practices.

While CEDC's overall FM currently lacks the sophistication of its international peers, the company has put significant efforts into establishing financial forecast procedures, and programs are in place to further improve this area. Importantly, these developments have occurred under unique circumstances in that the company has limited flexibility to alter its challenging objective to construct a large number of expressways within a short time frame.

Key Trends and Challenges for the Development of CEDC's EFMA Score

CEDC's EFMA score reflects the developing environment in which it operates. PRC's young and rapidly evolving regulatory regime, accounting standards, and legal system limit CEDC's ability to alter its current governance and FM practices rapidly. In particular, further improvements and implementation of its policies and procedures, which require coordination with external parties, are somewhat constrained by the developing nature of the domestic capital market and banking practices.

While CEDC's construction management is of a sound level, the company faces challenges to effectively maintain its three-level construction-progress monitoring procedures because of pressure on human resources. While this is an issue that the wider market is facing, this could impact the quality of its construction projects.

CEDC faces significant challenges to put in place objectives to ensure financial self-sustainability that have equal standing as its expressway construction objectives. While some financial targets currently exist, emphasis on cash flow and liquidity management is somewhat lacking.

Implementation of more stringent liquidity management measures (where this has not been a usual practice in the environment in which CEDC operates) poses a fundamental challenge for CEDC. More stringent liquidity management measures are necessary, however, if the company is to improve its FM and address the liquidity risk it faces over the medium term.

While CEDC's implementation of existing straightforward processes and policies is generally sound, the challenge is to maintain the effectiveness of implementation as policies and procedures become more sophisticated.

Any improvement on CEDC's overall EFMA score will depend on the company's ability to address the lag in debt and liquidity management and its financial forecasting time frame, and ensure that implementation of these financial management policies and processes continues to be effective.

Key Factors by Analytical Elements: Sophistication of Policies and Their Adequacy

1. Strategic management, organizational structure, and corporate culture

(Strategy, Organizational structure, Corporate culture)

Main strengths:

- Clear strategy is clearly communicated to all levels of staff. Although the capital-expenditure plan to build about 1,200 kilometers of expressways is considered operationally and financially aggressive, the business objective is clearly communicated as CEDC's focus over the next five years.
- The organizational structure generally supports its strategic goals. The rationale for the organizational structure is to separate the operations of completed toll roads and construction activities. This allows branch companies to focus on their assigned activities given the tight schedules for constructing a large number of toll roads simultaneously.

Main weaknesses:

- Since CEDC's establishment in its current form in 2003, the company has focused on construction tasks while overlooking other strategic areas. The establishment of a code of conduct has been slow, and while it exists in practice, a documented code of conduct is lacking. As a state-owned company, it relies on rules and regulations as a general framework for the company's code of conduct.

Key international good practice:

Some of the factors that S&P considers as international good practice are as follows:

- There is a sound rationale for the existence of the GRE;
- There is a consolidated approach to business planning—the business plan should encompass all of the GRE's operations and financial liabilities;
- The business plan is approved in a timely fashion;
- Business goals are explicitly stated and appropriately translated into performance indicators;
- Business goals are clearly communicated and implemented; and
- Track record of successful restructuring of particular areas of operations, activities, and financial arrangements signaling the GRE's proactive approach to internal improvements.

2. Financial policies and planning

(Business [financial] plan, Debt management, Dividend policy, Liquidity and cash management, Risk management [insurance])

Main strengths:

- Highly detailed capital-expenditure planning into the medium term reflects international good practice, and demonstrates the stringent scrutiny of CEDC's construction activities by management, the board, and its shareholders. CEDC's formal quarterly reports and semiannual board reports contain a good level of detail of capital expenditure plans. These plans are monitored from different

perspectives and management has the opportunity to make changes during the year should there be significant changes in the operating environment.

Main weaknesses:

- CEDC's FM and planning has been evolving over recent years from a basic level. While detailed, financial forecasts focus on the short term and on a cash basis. Much focus has been placed on construction funding and toll revenue and operating cost forecasts. Overall forecasts that bring all parts together are not as established, which is considered intermediate practice in financial planning. Availability of long-term (that is, five years and beyond) financial forecasts that includes CEDC's balance sheets, profit and loss statements, and cash flow statements would be necessary for an improvement of CEDC's score in this area.
- While adhering to a rather simplistic financial policy of a total debt to total capitalization ratio of 65 percent, focus on the company's ability to repay interest and principal of its high debt burden over the next few years is lacking.
- CEDC's liquidity management is fragmented. The company separates management of operational liquidity needs and financial liquidity requirements. This approach calls for management to consolidate the two sources of liquidity requirements into a net position. Without established reporting processes that bring the two parts together, it would be difficult for CEDC to establish minimum liquidity requirements, which would improve its ability to measure, monitor, and manage its liquidity position.
- Debt management is simplistic and unsophisticated with a concentration of liability base. The lack of a clearly defined and implemented strategy in areas such as debt maturities, interest rate combinations, and liability diversification, which are considered international good practices, is a constraint. This does not affect CEDC's financial profile significantly in the short term, however, as the company has put in place long-dated debt, where a large proportion of principal repayment will not begin to come due for the next five years. CEDC has toll-collection handling systems and procedures in place to manage major risks. These include checks and balances against fraud in toll collection and daily cash reconciliation. Nevertheless, the system is somewhat prone to human errors as there is a high level of manual procedures, in particular where there is low traffic volume. Implementation of automated systems to reduce this risk is ongoing.
- Hedging decisions and short-term financial assets investment decisions are ad hoc. This weakness is partly mitigated by the requirement of senior management approval for ad hoc financial transactions.

Key international good practice:

Some of the factors that S&P considers as international good practice are as follows:

- There is a clearly stipulated financial policy, which incorporates a long-term perspective and explains the GRE's vision of its future financial position;
- There is multiyear financial planning with multiyear appropriations;
- Financial targets are realistic, approved in a timely fashion, and consistently implemented;

- The GRE's financial policy is designed to support financial stability and disciplined FM;
- The GRE has a proactive approach to identifying, evaluating, and treating potential risks;
- There is a comprehensive and institutionalized risk management process;
- The GRE's debt policy is as follows:
 - Conscious of market, credit, liquidity, funding, operational, and concentration risks;
 - Explicitly formulated and consistently implemented;
 - Stable and predictable without unplanned debt issuance or sudden turns in debt policy;
 - Communicated to the legislative authority and the wider community;
- Long-term debt is used only to finance capital expenditure and short-term debt to manage liquidity;
- The GRE's debt and liquidity management policies are demonstrably conservative with limits for exposure to interest and currency risk, and minimum and desired levels of cash and equivalent are clearly stated; and
- In-year cash flow planning is sound.

3. Operational management

(Operating performance, Sales and billing systems, Supply management, Working capital management, Fixed assets management, Management experience and proficiency)

Main strengths:

- Management at the senior level has extensive experience and expertise in the toll road operation and construction arena. In particular, management has experience within the area of Chongqing and Sichuan. This is important given the challenging geographic conditions in Chongqing, which pose complicated and unique engineering challenges for CEDC.
- Extensive reporting of traffic flow to management is in place to allow for timely analysis of demographics (for example, analysis that allows for the investigation into toll leakage through a high level of toll-exempted vehicles). Traffic-flow reports include a daily report, a more extensive monthly report, and a quarterly report. This has enabled CEDC to identify and implement the weight-based pricing regime, which would reduce its revenue leakage.
- CEDC uses a competitive bidding approach to select contractors for expressway construction. As part of this procedure, safety performances are also in place as key performance indicators to ensure construction cost minimizing does not compromise the safety and quality of expressways constructed.
- CEDC has accumulated sufficient management and technical expertise in managing a large number of expressway construction projects. CEDC plays a coordination role in ensuring smooth coordination between subcontractors as road construction progresses. As a result, the company has been accumulating experience in project management. An established management and monitoring procedure is in place, although the implementation of its progress monitoring process is under pressure.

Main weaknesses:

- The pressure on human resources means that CEDC is facing significant challenges in implementing its construction-progress-monitoring procedures, which involve three levels of monitoring. This is partly because of the accelerated and significant expressway construction plan, and the inflexibility of current employment practices in PRC. In addition to the tight skilled labor market conditions, current employment practices mean that CEDC is reluctant to significantly increase human resources because of the inflexibility in reducing head counts once the construction work peak is over. Internally, at each subsidiary level CEDC has a team of full-time staff, who monitor the progress of each subsection of the construction and report on a monthly basis. At the head office level, the engineering team also monitors project progress using a risk-based approach. The CCC monitors quality of construction projects on a surprise basis.
- Maintenance of existing roads has been compromised by enormous financial pressure. This risk is not considered significant at this stage as many of CEDC's expressways are new and will not require major upgrades in the short term. CEDC does not seem to place the same level of emphasis on maintaining expressways compared to new expressway construction.
- The largely manual toll collection procedure allows for human errors as well as some security issues. There are more opportunities for human errors for toll stations that handle low traffic volume, where implementing stringent toll reconciliation systems may not be economical. CEDC is aware of these issues and endeavors to close the gaps when opportunity arises. This includes increased automation of toll collections.
- Level of financial contingencies available for the company for its construction projects is weaker than good international practices. These include a ten percent contingency contained in the overall cost of the project for such factors as material price increases.

Key international good practice:

Some of the factors that S&P considers as international good practice are as follows:

- Established traffic management and modeling;
- Appropriate cash-handling management systems at toll checkpoints (limited human errors, toll leakage, intraday cash reconciliation, etc.);
- Maintenance schedules are well aligned with actual expressway use (e.g., systems to accurately measure the weight of vehicles using expressways, planned and preventative maintenance procedures);
- Well-established feasibility procedures for construction and maintenance evaluation;
- Established contractual and management guidelines for any capital development;
- Well-aligned risk appetite in construction projects with risk transfer mechanisms (e.g. insurance, risk sharing with construction contractors);
- Clearly established construction and maintenance-progress-monitoring systems with clearly defined reportable thresholds for escalation to avoid cost overruns;
- Well-established and tested contingency plans for key risks identified;
- Uncompromised safety standards;

- Proven customer service facilities;
- Effective pay policies to allow appropriate staff to be properly recruited, retained, and motivated;
- Good data management that captures the essential information that allows the GRE to identify, measure, manage, and prevent emerging risks and improve operational efficiency;
- Well-established channels or forums with peers to share and learn about evolving technologies that could improve operational efficiency and safety standards; and
- Smoothly executed communication with major stakeholders, including sponsors, financiers, government, the public, etc.

4. Transparency and reporting

(Public reporting, Accounting policy/standards, Financial statements)

Main strengths:

- CEDC's financial and operational reporting to its government owner is sound. In addition to annual financial reporting (externally audited), the regulator, as well as the government audit department, undertakes a number of audits during the year. These include an operational audit and an audit at the project level and at the company consolidated level.
- CEDC's practice to expense all road maintenance costs, including major maintenance, is conservative compared to international practices.

Main weaknesses:

- CEDC's public reporting, although adequate for its purpose, falls short of the level of transparency compared with its international peers. The level of detail and frequency to its government owner is adequate, but detailed financial information is not available publicly.

Key international good practice:

Some of the factors that S&P considers as international good practice are as follows:

- Management's willingness and ability to communicate required information to major stakeholders, including the public;
- The use of comprehensive accounting policies and reporting, such as accrual-based accounting, full consolidation, and the availability of balance sheet, profit and loss, and cash flow statements with accompanying notes;
- Annual and interim reporting is comprehensive, accurate, timely, and disclosed through public annual reports and a Web site;
- Uses internal and external auditing, which provide comprehensive and independent views on the GRE's operational and financial performance; and
- Accounting staff have sound qualifications, and advanced accounting software is employed.

5. Ownership structure and government influences

(Ownership, Regulatory and consumer roles, Owner's control and oversight from the government, Influence from other stakeholders)

Main strengths:

- Stringent oversight by various government departments fosters accountability. There is strong representation from the CCC, CSASAC, and the CMG on CEDC's board, as well as senior management.
- Reporting line to the CSASAC is clear, with the board of supervisors overseeing the board in implementing its delegated tasks.

Main weaknesses:

- The government imposed an aggressive construction mandate on the one hand, while the government's policy to ensure toll rates are kept at an affordable level for the public is considered negative for the FM of CEDC. This puts enormous financial pressure on CEDC to focus on sourcing monetary capital.

Key international good practice:

Some of the factors that S&P considers as international good practice are as follows:

- The performance of the GRE and the top managers is systematically monitored. Where important issues in the GRE's performance have been identified, the government has processes in place to address and resolve them. Early warning system is employed;
- Effective segregation of regulatory, shareholder, and consumer roles with respect to GREs;
- Proper representation of the government shareholders' interests;
- The government's mandate to the GRE is clearly articulated, integrated into the government's long-term strategy, and supported by a long-term (or medium-term) contract between the government, GRE, and relevant parties;
- Funding sources for GRE's mandate have been identified to ensure the sufficient short-term liquidity and long-term sustainability of the GRE (either through government subsidies, access to concessional funding sources, or other funding sources). Where the GRE fulfills a public policy role that involves operating at below-market (or below-cost-efficiency) tariffs and rates, the government has a clear policy (or sustainable solution) of funding recurrent GRE operating and capital deficits; and
- Transparent and well-documented concession agreement. This includes items such as toll adjustments and planning procedures within the existing public road network or any future competing road network.

6. Key governance structures, independence, and effectiveness

(Board of Directors / Management board / Committees / Chief executive officer, Internal control, Conflict of interest, Related-party transaction)

Main strengths:

- CEDC's board of directors has limited conflict-of-interest issues. Further mitigating this risk is a board of supervisors, majority-appointed by the government, which takes on an independent oversight function of the operation of the board of directors. The board of supervisors attends all board meetings and has authority to review all or any CEDC proprietary information.

- The board of directors and senior management appear to have the necessary experience and capacity in leading the company to achieve its corporate objectives.

Main weaknesses:

- CEDC's internal control structure has improved in recent years, but only to a basic level. Other than an audit committee reporting to an executive committee, there is no additional risk committee. Establishment of other board risk committees, which is usual international practice, could foster accountability on forward-looking risks management issues.

Key international good practice:

Some of the factors that S&P considers as international good practice are as follows:

- The principles of good corporate governance are adhered to;
- The GRE employs comprehensive corporate business planning and performance reporting;
- Transparent nomination process is followed for board of directors and chief executive officer positions, based on competence and skills; and
- The GRE is independently externally audited.

Table 5.3: Key operating statistics

	2006	2005	2004	2003
Number of expressways	6	5	NA	NA
Length—kilometers	750	715	715	NA
Toll collection (million RMB)	1,708.91	1,522.05	1,350.15	982.60
Concession length	30	30	30	30
ADT	215,591	188,617	NA	NA
ADT growth	14.3	NA	NA	NA
Traffic volume	78,690,658	68,845,167	NA	NA
NA=not available; ADT=average daily toll				

Source: CEDC

Table 5.4: Financial statistics

Chongqing Expressway Development Co., Ltd.

	--Year ended December 31 --			
	2006	2005	2004	2003
<i>Income statement (mil. RMB)</i>				
Gross revenues	1,367.04	1,178.82	974.07	1,483.49
Operating expenses (excl. DD&A)	390.88	426.96	300.94	255.02
Depreciation and amortization	1,115.59	1,007.97	819.51	800.66
EBITDA	1,307.68	2,800.76	889.64	1,214.32
Interest incurred	1,519.60	933.56	789.74	644.44
Net interest incurred	1,453.75	800.65	753.75	644.44
Net income	(574.47)	1,114.54	(538.84)	277.62

<i>Earnings protection</i>				
Pretax interest coverage (x)	0.01	1.45	0.20	0.64
Adjusted pretax interest coverage (x)	0.01	1.45	0.20	0.64
Net pretax interest coverage (x)	(0.03)	1.52	0.16	0.64
Adjusted net pretax interest cov. (x)	(0.03)	1.52	0.16	0.64
EBITDA interest coverage (x)	0.75	2.53	1.24	1.88
Total debt/EBITDA (%)	3,084.51	952.73	1,524.01	1,145.95
Return on average equity (%)	(5.22)	12.38	(6.26)	5.83
Annual expenditure growth (excluding DD&A) (%)	(8.45)	41.88	18.00	N.A.
Total operating exp./revenues (%)	28.59	36.22	30.89	17.19
<i>Balance sheet (mil.RMB)</i>				
Cash and equivalents	2,820.51	2,895.48	2,822.93	1,904.91
Net plant	41,360.60	29,115.13	21,319.05	21,703.73
Total assets	49,985.60	37,213.28	26,765.13	26,912.38
Short-term debt	3,414.97	3,159.42	1,537.41	932.74
Long-term debt	31,587.29	19,314.91	13,360.68	12,982.84
Common equity	11,687.00	10,307.64	7,691.51	9,519.67
Total capitalization	46,689.26	32,781.97	22,589.59	23,435.25
<i>Balance-sheet ratios (%)</i>				
Short-term debt/total capital	7.31	9.64	6.81	3.98
Long-term debt/capital	67.65	58.92	59.15	55.40
Common equity/total capitalization	25.03	31.44	34.05	40.62
Total debt/total capitalization	74.97	68.56	65.95	59.38
Adjusted total debt/total capitalization	74.97	68.56	65.95	59.38
Net debt/net total capitalization	73.36	65.51	61.09	55.78
<i>Cash flow (mil. RMB)</i>				
Net income	(574.47)	1,114.54	(538.84)	277.62
Depreciation	1,115.59	1,007.97	819.51	800.66
Funds from operations (FFO)	(196.24)	(83.65)	195.81	572.84
Common dividends	0.00	0.00	0.00	0.00
Net cash flow (NCF)	(196.24)	(83.65)	195.81	572.84
Net capital expenditures (capex)	11,596.54	9,046.68	3,923.56	4,349.26
Discretionary cash flow	(11,807.81)	(9,480.91)	(3,799.46)	(3,005.29)
<i>Cash flow adequacy</i>				
Capex/average total capital (%)	29.18	32.68	17.05	37.12
NCF/capex (%)	(1.69)	(0.92)	4.99	13.17
NCF/capex and net acquisitions (%)	(1.69)	(0.92)	5.07	13.29
FFO / total debt (%)*	(0.56)	(0.37)	1.31	4.12
FFO / net debt (%)*	(0.61)	(0.43)	1.62	4.77
FFO interest coverage (x)	0.87	0.91	1.25	1.89
FFO net interest coverage (x)	0.87	0.90	1.26	1.89

Note: DD&A=depreciation, depletion, and amortization; EBITDA=earnings before interest, taxes, depreciation, and amortization.

*FFO/debt ratios previously reported as average debt.

Disclaimer EFMA:

The Extended Financial Management Assessment in this report (“EFMA”) is an evaluation of the financial management systems and practices of Chongqing Expressway Development Co., Ltd., (“CEDC”) aimed at determination of their strength, weaknesses, risks, and opportunities in the context of global good practices and local environment. The EFMA has been prepared utilizing Standard & Poor’s methodology for a fiscal accountability and capability evaluation. The EFMA is based on the information submitted by or on behalf of CEDC and on other information Standard & Poor’s may have available. Standard & Poor’s has relied on World Bank and CEDC for the accuracy, completeness, timeliness, and reliability of the information submitted at any reasonable time in connection with the EFMA. Standard & Poor’s (i) does not and cannot guarantee the accuracy, completeness, or timeliness of the information relied on in connection with the EFMA and any report or the results obtained from the use of such information, and (ii) does not and cannot warrant suitability of the EFMA or any report for any particular purpose or use. The EFMA and its results are (i) an opinion and are not a verifiable statement of fact, (ii) provided without any express or implied warranties, (iii) do not represent an audit of CEDC by Standard & Poor’s, and (iv) do not constitute investment, financial, or other advice. In providing the EFMA Standard & Poor’s is not providing an issuer credit rating, a financial strength rating, or a corporate governance score of CEDC. Any use or distribution of the EFMA must be in compliance with all applicable laws. The EFMA has been conducted as an independent analytical service. Other than conducting the EFMA and a Credit Analysis (referred to in a separate report) Standard & Poor’s has had no other involvement in the matters addressed in the World Bank report to which this report is appended.

Provision of the EFMA services is in its pilot stage. The methodology used to conduct the Assessment may be altered as a result of further pilot projects. The assessment results, including scores and statements, presented in the above report may be amended in the future at Standard & Poor’s discretion.

SECTION 3 —COMPARISON OF CEDC WITH SOUTH AFRICAN NATIONAL ROADS AGENCY

In considering ways in which the CEDC can implement a reform program that covers all the key issues—capital structure, appropriate leverage ratios, financial and risk management systems as well as corporate governance, and disclosure and reporting requirements—it is useful to make a direct comparison with an agency of similar mandate to the CEDC from another country that has successfully implemented such reforms.

The SANRAL is such an agency. It is wholly owned by the Government of South Africa, has a road network of 15,600 kilometers and an aggressive capital investment program that requires it to raise an equivalent of RMB 10.3 billion before 2010 without access to government guarantees. SANRAL has an AA2 credit rating issued by Moody's, and its corporate governance and FM program represents global best practice. The following table shows comparable operations and financial statistics for the CEDC and SANRAL for the 2006 financial year.

Table 5.5: Performance comparison (FY 2006)

	CEDC	SANRAL*
Corporate credit rating	NA	Aa2.za
Country	Chongqing, China	South Africa
Concessions	All roads in CQ	3
Length of network (km)	750	15,600 (2,450 tolled)
Percentage of network > 20 years	0	47
Annual average daily traffic (vehicles)	215,591	257,000
Major shareholders	Chongqing Municipal Government 100%	South African Government 100%
Key financial figures	(RMB mil. fiscal 2006)	(RMB mil. fiscal 2006)
Revenues	1,367.04	2,454.79
EBITDA	1,307.68	358.60
Net income	(574.5)	(245.59)
Total assets	49,986	9,268
Total debt (gross)	35,002	6,847
Total debt (net)	32,182	5,383
Funds from operations (FFO)	(196.2)	790.45
Capital expenditures (capex)	11,596.5	481.5 **
Dividend payout	0	0
Financial ratios (%)		
EBITDA margin	71.4	14.6
FFO net interest coverage (x)	0.87	1.6
Net debt/EBITDA	30.85	15.0
FFO/average net debt	-0.7	11.5
Total debt/total capital (%)	75.0	79.6

Source: CEDC and SANRAL Annual Reports

*converted using 1 ZAR=1.03 RMB; **excludes all capex on concessioned roads

The SANRAL capital expenditure plan is related to the required rehabilitation and extension of an aging toll network. It plans to raise an estimated RMB10.3 billion over the next five years. This would require considerable increase in capital expenditure from the low base of 2006. SANRAL currently has total borrowings equivalent to RMB 6.8 billion, mostly in the form of fixed-interest-rate, long-maturity bond issuances. The majority of all borrowings in the past were guaranteed by the South African Government but this will not be extended to new borrowings. SANRAL has been given the Moody's Aa2 rating based primarily on the following:

- A good (6 on a scale of 1 to 21) credit risk rating
- The A2 local currency rating of the government of South Africa
- High default dependence (implicit guarantee of ultimate support by central government)
- Its legal status as the government agency responsible for all national roads and its close financial links with the central government

In 2003 and 2004, SANRAL had an interest coverage ratio of 0.3 and despite the 2006 ratio being greater than 1.5, future projected ratios indicate a deterioration of credit protection measures, with a negative interest coverage ratio in the years up to 2011 and until new projects start generating revenues. This did not impact adversely on the credit ratings, as it is not unusual for a publicly owned roads agency to be highly leveraged during an expansion of infrastructure. The assurance of SANRAL meeting its obligations lies in the proven track record of planning and executing both the construction and operation of toll roads, established traffic patterns, and its well-defined and established relationship with the government.

A closer examination of the operations and governance model of SANRAL reveals the following observations and comparisons with CEDC:

1. *Financial indicators*

CEDC compares favorably with SANRAL vis-à-vis asset value, traffic volume, and revenue per kilometer of toll road. Even the EBITDA margin of CEDC is better than SANRAL; however, the FFO of CEDC is almost half that of the FFO of SANRAL, which indicates very high leverage and is particularly alarming when we consider that CEDC is carrying roughly five times more debt than SANRAL. It is therefore very likely that the financial problems of CEDC are related to a cash flow problem rather than a balance sheet (or asset quality) problem. The asset quality of CEDC can be estimated to be particularly strong in light of the extremely favorable position of the CEDC toll-road network in the expansion of the fast-growing Southern China economy.

2. *Clarity of mandate*

SANRAL has a single and clear mandate established in law that sets out the mandate as well as provisions for its ownership, default dependency relationship with the government, liquidation procedures, and basic corporate governance requirements. These have a substantial impact on the credit rating, as it provides certainty on the relationship with the government. The law also provides for a framework for defining the projects

that are within the mandate of SANRAL. Specifically, the decision as to whether a road should be toll road or a regular highway is made based on the financial viability of each road project, with clear guidance based on traffic and revenue projections. In cases where the government requires developing roads that are not within the business and financial plan of SANRAL or were scheduled to be prepared at a later time to allow for more traffic volume to underwrite the construction cost, the enabling legislation requires the government to make the request in writing, accompanied by the necessary budget so that SANRAL can complete the task as an operational project.

While CEDC does have a clear mandate, it is not absolute and is not established in law. There are no central government laws that can be relied upon to clarify the default dependency relationship with the government, liquidation procedures, and basic corporate governance requirement regulations. The possibility of ad hoc changes involving assignment of projects or the construction timing of projects makes it difficult for the CEDC to set and achieve targets, and consequently for the CMG to supervise the financial performance of CEDC. The resulting lack of clarity and predictability provides incentives to the banks to securitize their loans to CEDC with the guarantee of CMG or its agencies.

3. Transparent subsidies

Revenues from toll roads can be used on other toll roads and any future explicit subsidies from the central government via the MOF can be either in the form of capital or in-kind grants or usage-based subsidies that would be treated as revenue for specific toll road projects. It is important to note that to date no subsidies have been paid, as the toll roads have been selected as those with sufficient user revenue to cover all capital and operational costs. As SANRAL evolves, however, it is giving careful consideration to the use of transparent, project-based subsidies.

CEDC does not receive CMG subsidies through a transparent system. The majority of capital support is in the form of capital injection into the general operating budget (e.g., the road maintenance fee that is transferred to CEDC), which is not adequately tied to the number of nonoperational projects CEDC is asked to implement or the financial stress experienced by CEDC because of the decisions to construct project(s) when the anticipated traffic volume does not justify the early construction of the toll road.

4. Budget and strategic planning

SANRAL maintains a comprehensive, 10-year budgeting system that is built on established cost norms and combines operating, financing, and capital expenditure activities over a 10-year period.

CEDC has a fairly good operational budget system, but it has yet to develop a viable capital budgeting and long-term strategic planning system.

5. Interaction with the private sector

SANRAL has a well-developed program that involves private sector participation in financing and operation of toll roads. Concession agreements are favored where possible

because they (a) allow the roads to be both built and maintained at no cost to SANRAL, (b) reduce financial risk, and (c) provide SANRAL with an improved, debt-free asset. Operations and maintenance contracts let out on a competitive basis for functions such as installation and operation of toll collection systems, road maintenance to set specifications, and road safety and security also reduce the financial burden.

CEDC is able to take limited advantage of the private sector because of the lack of qualified private-sector players in the market, and perhaps also because the framework for UDICs partnership with the private sector is not very well developed in China.

6. Corporate governance structure

SANRAL continues to reform its corporate governance and risk management systems and has established performance targets in 19 key areas that are benchmarked against the South African private sector. The performance in the 19 areas is reviewed annually and disclosed in the SANRAL Annual Report. The role of the board in corporate oversight is extended by the use of committees on which board members sit. Independent industry specialist members are also used in committees that cover functions such as assets and liabilities management; contracts; audits; and remuneration.

CEDC does not have a meaningful corporate governance structure, and there are no relevant or appropriate provincial or central government rules and recommendations for UDICs.

7. Risk management systems

SANRAL uses a risk register that guides the continuous assessment of current risks and the identification of new risks. The risk register is based on the identified strategic and operational risks, and a risk management team is then responsible for identifying the appropriate mitigation and monitoring systems, as well as allocating functional responsibility for protecting assets and information. The internal audit systems include risk-register-based assessments.

CEDC risk management is relatively well developed for construction-type projects, but they are not on par with what is expected for an operational enterprise.

8. Financial management and treasury functions

SANRAL implements liquidity management practices and a debt management framework within an outsourced treasury function environment combined with internal controls. CEDC FM and treasury functions are not well developed.

SECTION 4 —LIQUIDITY ANALYSIS OF THE CEDC

This section supplements the financial analysis conducted by S&P in the previous sections of this chapter. It should be read in conjunction with the TAR, as it does not repeat the financial analysis of that report and focuses on a cash, liquidity, and debt-service-capacity analysis of the CEDC's financial statements for the years 2003 to 2006 and the CEDC's own projections for the years 2007 to 2015.

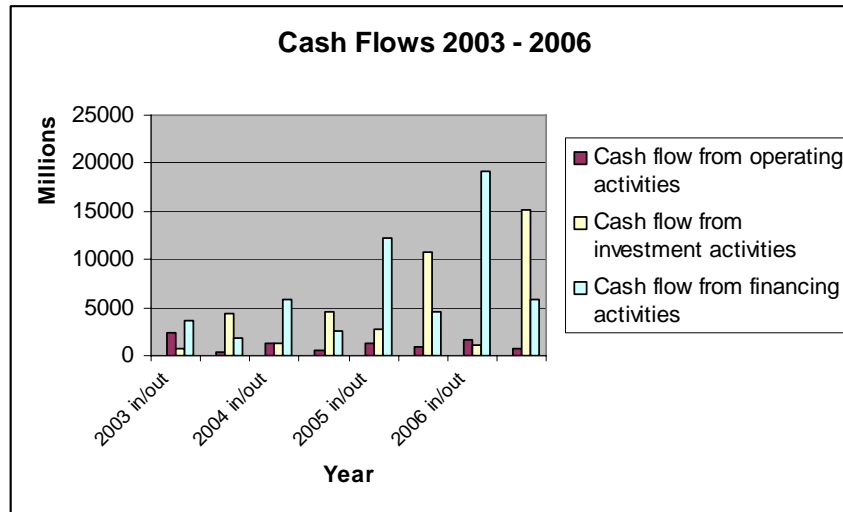
Synopsis

This section provides a brief analysis of key financial indicators related to cash flow and liquidity for the CEDC for the years 2003 to 2006, and projections on debt service capacity for the years 2007 to 2015. The CEDC is a wholly state-owned company, so its long-term viability is less dependant upon the revenues from operations than a private company. Nevertheless, the CEDC is increasing reliant on cash inflows from financing activities as revenue from operations decreased by 32 percent in the period 2003 to 2006. Key ratios indicate low liquidity and limited operating capital levels. The data also shows an inability to service long-term debt without either a substantial increase in operational revenue, debt restructuring, or both. This ties in well with the recent TAR's conclusion that limited financial and risk management systems, combined with aggressive capital expenditure programs on non-revenue-generating projects, pose serious short- and long-term challenges to the company.

Analysis of Cash and Liquidity Ratios from CEDC Financial Statements

The following figure sets out the cash flows of CEDC during the period 2003 to 2006 (all figures are in millions of RMB). It indicates (1) CEDC receives the majority of cash during this period from financing activities, especially from borrowing, rather than operating activities; (2) CEDC's cash provided by operating activities dropped by about RMB 750 million or 32 percent from 2003 to 2006; (3) CEDC spent most of its cash on investment activities, mainly used for the purchase and construction of fixed, intangible, and other long-term assets. While this is consistent with the CEDC's objectives as a company developing a rapidly expanding road network, the increasing mismatch between operational revenue and the quantity of investments funded by borrowing is cause for concern from a debt servicing perspective over the next few years.

Figure 5.1: CEDC's Cash Flows, 2003-2006



Liquidity and Cash Flow Analysis

The indicators in Table 5.6 are used in this report to analyze CEDC's liquidity situation and short- and long-term debt payment abilities, including current ratio, quick ratio, operating capital, interest coverage ratio, and debt to shareholders' equity over the period 2002 to 2005.

Table 5.6: Analysis and calculation of major financial indicators of CEDC

Indicator	2002	2003	2004	2005
Current ratio	1.8227	1.0852	0.8195	0.8638
Quick ratio	1.8209	1.0736	0.8127	0.8624
Cash ratio	1.0621	0.5226	0.5565	0.3823
Interest coverage ratio*		1.89	1.25	0.91
Operating capital (RMB million)	1,695.5	310.5	(915.9)	(1,031.5)
Liabilities/equity ratio	1.93	1.96	2.71	2.77

Note: *Taken from TAR analysis conducted by S&P

Current ratio and quick ratio measure the company's ability to pay back its short-term liabilities (debt and payables) with its short-term assets (cash, inventory, receivables). From 2002 to 2005, CEDC's current ratios and quick ratios dropped significantly from 1.8 to 0.9. The (unverified) 2001 current ratio of 2.8 shows that the downward trend has been consistent over the last five years. These ratios serve as evidence that CEDC's cash position worsened from 2001 to 2005. This trend increases after 2004, as both the current ratio and quick ratio are below one. A ratio under one suggests that the company would be unable to pay off its obligations if they came due at that point. While this shows the company is not in good financial health, it does not necessarily mean that it will go bankrupt, as financing can be obtained from other sources. The operating capital indicator running from positive in 2002 to negative in 2005 simply confirms the poor liquidity position of the CEDC.

The interest coverage ratio shows the ability of the CEDC is generating enough revenue before tax to pay its interest obligations. A ratio of less than one means a company is generating less cash from operations than needed to pay all its interest.

CEDC's liability-to-equity ratios were increased in the period from 2002 to 2005, from 1.9 to 2.7, with an upward trend that looks unlikely to reverse given the investments funded from borrowings. As the CEDC becomes increasingly leveraged, it will probably pay a risk premium on interest rates and margins in a borrowing environment based on creditworthiness.

Long-term Debt Repayment Ability

The CEDC's debt structure is heavily dependent on long-term debt. While the cash ratio looks at the company's ability to pay its short-term debt obligations, the CEDC has carried out an analysis of future cash flows that allows an extrapolation of cash ratios over the period 2005 to 2015. This is shown in Table 5.7, which is taken directly from data provided by the CEDC.

Table 5.7: Estimated profit of Chongqing Expressway from 2005-2015

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Core business revenue	104,371	114,357	125,614	150,589	214,774	273,901	305,224	329,449	355,803	382,902	410,496
Core business cost paid in cash	30,505	20,606	47,470	25,167	34,889	57,466	65,940	72,954	104,718	86,878	86,946
Road depreciation	65,736	73,755	86,856	107,481	239,349	302,973	302,973	302,973	302,973	302,973	302,973
Core business taxes and surcharge	3,444	3,774	4,145	4,969	7,088	9,039	10,072	10,872	11,741	12,636	13,546
Core business profits	4,685.76	16,222.22	12,857.26	12,971.56	66,551.54	95,576.73	73,761.39	57,349.82	63,629.50	19,584.77	7,030.63
Other business profits	238.00	810.00	888.00	1,276.00	1,582.00	2,610.00	2,868.00	3,140.00	3,444.00	3,727.00	4,045.00
Management expenses	7,300.00	7,756.47	9,093.79	10,320.98	18,234.78	22,498.48	24,748.32	27,223.16	29,945.47	32,940.02	36,234.02
Financial expenses	50,262.00	55,130.00	70,719.00	88,703.00	182,930.00	305,377.00	389,976.00	376,586.00	363,834.00	345,267.00	336,169.00
Operating profits	52,638.24	45,854.25	91,782.05	84,776.42	266,134.32	420,842.21	485,617.72	458,018.97	453,964.97	394,064.78	361,327.39
Total profits	52,638.24	45,854.25	91,782.05	84,776.42	266,134.32	420,842.21	485,617.72	458,018.97	453,964.97	394,064.78	361,327.39
Income tax	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Net profits	52,638.24	45,854.25	91,782.05	84,776.42	266,134.32	420,842.21	485,617.72	458,018.97	453,964.97	394,064.78	361,327.39
Net assets	649,438.00	603,583.75	511,801.70	427,025.28	160,890.96	259,951.25	745,568.96	1,203,587.93	1,657,552.91	2,051,617.69	2,412,945.08
Net asset return rate	-8.11%	-7.60%	17.93%	19.85%	165.41%	*	*	*	*	*	*

Note: 1. Depreciation cost is the future operating mileage plan multiplied by the integrated depreciation rate of 3.3%.

2. Subsidy income estimation should be based on government's preferential policies. Such estimation is impossible now.

3. Current management expense per kilometer multiplied by the expected operating mileage in specific years.

4. 649,438=701,445—52,007.

5. The income source is the total toll revenue of both projects under construction and completed projects put into operation.

Summary

The overall stand-alone credit rating of “NA” given to CEDC by S&P reflects the significant operational and financial pressure under which CEDC operates as a result of its inflexible capital expansion plan, pricing restrictions by regulator, high traffic-volume risk, high financial-leverage appetite, and weak liquidity position. These weaknesses are balanced by CEDC’s good construction-management track record and strong governmental ongoing support, operationally and financially. S&P concludes that CEDC’s vulnerable financial profile is a major constraint on its rating. The company’s EBITDA interest coverage averaged about 1.6x over the past four years, and hit a low of 0.75x in fiscal 2006. The company’s FFO turned negative in the past two years. CEDC has been relying on the sale of roads and heavy borrowing to maintain a positive cash flow. CEDC is aware of its liquidity position, and is currently considering a number of strategies to address this issue. CEDC’s good construction-management track record is clearly a key strength of its rating.

The comparison of CEDC with the SANRAL—a publicly owned enterprise with a similar profile and mandate to CEDC and an investment-grade credit rating—provides further evidence of the structural problems that appear to be responsible for the financial weakness of the CEDC. While the technical capacity, as well as the quality and perceived value of the infrastructure assets of the two companies appear to be fairly comparable, the credit rating of SANRAL is superior to that of CEDC primarily because SANRAL operates under a transparent and consistent operational scope and charter that is codified into law. Specifically, the government is by law required to provide funding through the budget for any activities it wants SANRAL to finance that are outside the mandate. Additionally, the functions are separated between toll and non-toll-road networks with, very importantly, clear standards for defining toll roads and non-toll roads to ensure that the nonoperational projects (which are not financially viable) cannot be transferred to SANRAL without appropriate budget support. Finally, advanced and transparent corporate governance systems provide clear rules of engagement between SANRAL and the government to ensure that both the SANRAL management team and the government are accountable for their performance.

CHAPTER 6. SUMMARY AND RECOMMENDATIONS

Summary

The Convenient Past and the Uncomfortable Present of the UDIC Model

The UDICs have allowed the Chinese cities to build infrastructure over the last 10 to 15 years. The establishment of UDICs started in the early 1990s when the central government fiscal transfers to local governments were based on revenue-sharing contracts. As off-budget entities, the UDICs provided an ideal platform for the cities to not expose their key revenue sources, such as land use fees, to the revenue sharing contracts with central government. The local governments transferred significant cash flow streams to the UDICs to finance their operations, including the servicing of their debt. Since the early 1990s, however, the policy changes and market trends have collectively created a situation that supports accumulation of excessive amount of debt by the UDICs that is not supported by their investment and cash flow profile. The key drivers of increased and increasingly inappropriate levels of UDIC debt are as follows:

- The fiscal policy reforms since the early 1990s have reduced the number and scope of local government own-source revenues and made them on-budget items; i.e., the municipal revenues are now increasingly dedicated to specific items in the municipal budget and cannot be easily transferred to off-budget entities such as the UDICs.
- While the local government revenues available to the UDICs have reduced substantially, the local government incentive vis-à-vis development of infrastructure as a sign of successful local-level leadership has not changed.
- Financial market liquidity continues to force the banks to lend aggressively.
- The prospect of foreign investors interested in buying Chinese banks has made the banks reluctant to write off old bad loans made to the UDICs. At the same time, it is difficult for local governments to let a UDIC default on its loans.
- The pattern of financing infrastructure with short-term loans on a rollover basis has contributed to the increase in the size of debt carried by UDICs.

In the absence of a municipal bond framework, the UDICs continue to serve an important purpose as the only platform available for the local governments to raise funds for infrastructure development. Significant institutional development reforms, however, are required in the UDIC model to support the next generation of infrastructure development systems in China. Specifically, the UDIC model has to expand beyond the confines of the traditional construction-oriented platform to an operational company platform with enhanced *marketization* and systems designed to ensure financial sustainability.

The current GOC policy appears to be to gradually steer the UDICs toward a model in which they can operate as independent entities undertaking credit-based borrowing to develop infrastructure with increasingly more private sector involvement. The views of the central government agencies, however, have not been officially or publicly articulated in a comprehensive manner. The policy trends indicate that critical actions are required

at the UDIC, local-government, and central-government level to steer the development of the UDICs in the appropriate direction.

Key Bottlenecks to the Development of UDICs

The CMG decision to reorganize the UDICs as specialized enterprises established along sector and functional responsibilities is a significant step forward for the reform of UDICs in China. The CMG UDIC strategy, however, depends upon the quality and speed of institutional development of the UDICs that can be undertaken by the municipal government. It is unlikely that the UDICs will be able to implement the very sensible and forward-looking strategy of the CMG unless some fundamental bottlenecks to the development of UDICs—particularly those related to lack of clarity of operational mandate and corporate governance—are addressed. It is significant that the legal basis of the establishment of UDICs as an instrument of the local government is the Company Law; however, neither the law nor its implementing ordinances (nor any other central government law, for that matter) provide any clarification to guide the use of the UDIC instrument vis-à-vis important areas such as liquidation provisions, liabilities of the sponsoring local government, or corporate governance rules and the relationship between the UDICs and the sponsoring local government.

UDIC Case Study—Credit Analysis of the CEDC

The development stage FACE of the CEDC conducted by S&P effectively initiates the process by which benchmarks for the financial performance of UDICs will be established. It will be possible to establish a complete set of financial ratios and other soft and hard benchmarks of UDIC performance after similar rating exercises have been conducted with multiple UDICs in multiple cities. The S&P analysis and rating for CEDC was encouraging in that the rating agency recognized the high leverage and corporate governance issues, as well as the technical capacity and asset quality of CEDC.

The comparison of CEDC with SANRAL provided further evidence of the key structural problems that appear to be responsible for CEDC's financial weakness. While the technical capacity, as well as the quality and perceived value of the infrastructure assets of the two companies appear to be fairly comparable, SANRAL's credit rating is superior to that of CEDC primarily because SANRAL operates under a transparent and consistent operational scope and charter that is codified into law. The South African government is required by law to provide funding through its budget for any activities it wants SANRAL to finance that are outside its mandate. Additionally, the functions are separated between toll and non-toll-road networks with, very importantly, clear standards for defining toll roads and nontoll roads to ensure that the nonoperational projects (which are not financially viable) cannot be transferred to SANRAL without appropriate budget support. Finally, advanced and transparent corporate governance systems provide clear rules of engagement between SANRAL and the government to ensure that both the SANRAL management team and the government are accountable for their performance. CEDC should be able to significantly improve its credit rating in the near to medium term if the CMG and CEDC management can work on a pilot basis to address the key institutional development issues, build basic financial management capacity in CEDC,

and develop a strategic asset management and financing plan that can take into account the future cash flow potential of CEDC's assets.

Financial Risk and Opportunity

In an environment where credit-based lending is not the norm, the UDICs that are currently under financial distress are likely to continue to further damage their position. It is therefore possible that the financial position of the UDICs around the country is deteriorating in proportion to the increase in infrastructure development in Chinese cities. The lack of transparency and availability of data about financial operations of UDICs is noticeable, and it may impede the development of appropriate policy toward UDICs. It is not clear if the local governments themselves are in all cases fully aware of the status of the financial position of their UDICs. On the bright side, the review of CEDC and its comparison with SANRAL in South Africa indicates that the problem with at least some UDICs may be related to cash flows rather than the overall viability of the balance sheet. This is primarily because the financing provided to the UDICs has been by and large not customized to their asset and cash flow profile, and the UDICs lack the bargaining power and the capacity to develop strategic financing plans that suit their investments. Hence, a proactive, results-oriented, and strategic approach to UDICs that addresses the institutional development bottlenecks, as well as financial reengineering and the necessary workouts, may also provide opportunities for asset appreciation and cash flow generation for local governments. Overall, while there may be financial and fiscal risk associated with the operations of the UDICs, as a matter of public policy it is difficult to overlook the utility that the UDIC model has provided to the Chinese cities. It is also not hard to imagine a future in which UDIC will have the capacity and financial strength to be listed on the stock market, issue pooled bonds, and undertake other innovative financing that can greatly benefit the growth of Chinese cities. How and when the UDICs will transition to the next phase of *marketization* is a matter of urgent public policy because it carries with it significant risks and rewards for Chinese cities.

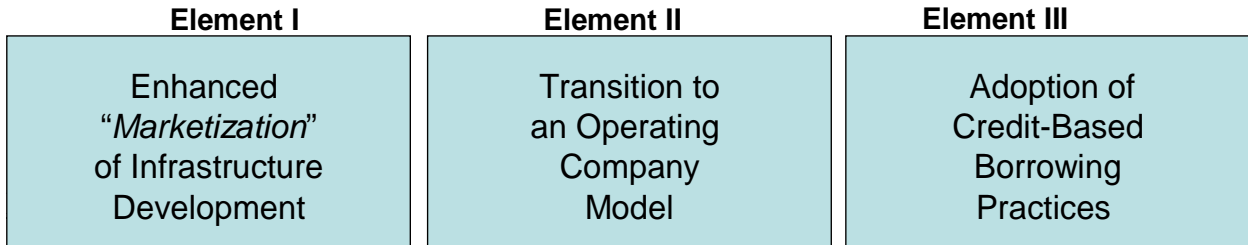
Recommendations

This section provides the recommendations regarding the institutional development of all the UDICs in Chongqing, followed by a set of recommendations that are specific to the development of CEDC as a pilot UDIC in Chongqing.

Recommendations—Institutional Development of UDICs in Chongqing

The recommendations for the institutional development of all the UDIC in Chongqing can be segmented into three interdependent elements that must be pursued simultaneously to achieve the desired results. In particular, UDICs cannot meaningfully adopt credit-based borrowing practices unless the supporting changes identified under Elements I and II are implemented.

Figure 6.1: Institutional Development of UDICs



Element I—Enhanced *Marketization* of Infrastructure Development

1. Review, realign, revise, and reestablish operational mandates of UDICs
 - a. Conduct a detailed review of the mandates of all UDICs and identify their operations as (i) operational,^{xiv} (ii) quasi-operational and (iii) nonoperational, and establish a methodology for defining “operational” projects.
 - b. Establish a system for assigning realistic budget assignments for quasi-operational and nonoperational functions to make them financially viable.
 - c. Match investment responsibilities with financing sources to ensure that UDICs only borrow from the market for projects that can generate the cash flow to pay back the interest and principal associated with the borrowing.
 - d. Revise the operational mandate according to a, b, and c above, and preferably codify it into law to provide transparency, permanency, and predictability.
 - e. Establish corporate governance structure to ensure the appropriate level of accountability vis-à-vis the performance of the UDICs, as well as the government.

2. Financial assessments to mitigate risk and establish credit-based UDIC borrowing
 - a. Conduct a confidential financial assessment of all UDICs to determine the true status of their financial position and obtain a better picture of the financial risk associated with each UDIC. The assessment can be done on a confidential basis.
 - b. Undertake measures to resolve any problems that might exist to ensure that the situation does not deteriorate further.
 - c. Put in place oversight structures to prevent the problem(s) from reoccurring.
 - d. Select UDICs for credit-based borrowing on a pilot basis. The process could involve a development-stage credit rating, followed by steps to improve the credit rating via strategic advice and assistance in key areas, including optimal asset utilization, strategic planning, and financial engineering and structuring.

3. Increase private sector participation

The process of *marketization* of infrastructure development should continue further with increased involvement of the private sector in financing as well as operations. The problems associated with a lack of qualified private sector players may be overcome by possibly working with interested international firms on innovative pilot projects.

Element II—Transition to an Operating Company Model

1. Establish and improve internal controls. The corporate governance systems proposed under Element I will require more strategic controls that are based on performance benchmarks, accountability vis-à-vis the overall program, and transparent reporting systems.
2. Implement comprehensive budgeting. Establishing a reliable comprehensive budgeting process will not only instill financial and operational discipline in the UDICs, it will also strengthen the revised operational scope and mandate of UDIC.
3. Improve risk management systems. The improvement in UDIC risk management systems may be addressed through the adoption of risk registers or similar tools that can guide continuous assessment of current risks and identification of new risks. A very simple sample risk-register template is attached as Annex X.
4. Improve the management information systems (MIS). The UDICs do not have modern MIS that include financial and project management software. The low quality of information makes it difficult for UDIC management to make good decisions, particularly as they relate to strategic planning. It is important to be realistic about the cost and benefits of upgrading MIS; however, the UDICs should at least be able to use improved software that is easily available in China today.
5. Increase focus on asset management. Increased focus on the optimal use of current assets is a key element of the necessary transition to an operational company model. It is recommended that the UDICs implement an asset management database that sets out all assets, both fixed and intangible (usage rights), with a framework for use of these rights and the means by which they will be put to market bidding where and when appropriate. All assets must have possible values ascribed to them with forecasts of future values based on user demand and other variables.

Element III—Adoption of Credit-Based Borrowing Practices

1. Financial management and treasury functions. The UDICs should consider implementing liquidity management practices and a debt management framework within an outsourced treasury function environment until such time as internal systems in the UDICs are capable of these controls.
2. Streamline financial assistance and on-lending by the CMG. The UDICs currently receive direct and indirect CMG support in arranging the financing for projects through a variety of channels. These arrangements allow the projects to be financed, but they result in the UDICs agreeing to take on the responsibility of repaying loans that they are often not able to qualify for or safely service based on their own cash flows. A clear system for financing quasi-operational projects should be established that allows the CMG to provide budget support to make projects “operational” without undermining the financial viability of the involved UDIC. Importantly, it is recommended that CMG assistance should be either provided to the UDIC as registered capital (equity) or provided directly to the project (as opposed to on-lending it through the UDICs) to reduce the project cost.

3. Comprehensive financial assessment of UDICs. It is important for the CMG to take stock of the financial position of UDICs to understand the extent of the possible financial distress, and put in place appropriate borrowing limits for each UDIC.

4. Establish financial performance benchmarks. It is important for the CMG to start developing qualitative and quantitative benchmarks for the financial performance of UDICs. The key qualitative and quantitative benchmarks established are summarized in the following tables repeat exercises with many UDICs will eventually result in establishing representative performance benchmarks for UDICs in China.

Table 6.1: Financial accountability and capability assessment

Element	Description
Strategic management, organizational structure, and corporate culture	Clarity of organizational structure and quality of the management team
Financial policies and planning	Budgeting and capital structure management
Operational management	Quality of operational functions
Transparency and reporting	Disclosure of financial information and clarity of system for reporting to local government
Ownership structure and government influences	Clarity of ownership; governance track record of the local government
Governance structure, independence, and effectiveness	Corporate governance structure, including oversight framework, and professional independence of the management team

Table 6.2: Financial performance and profitability

Risk profile	Subcategories	Description
Business risk profile	Regulation	Consistency and reliability of government regulations in the sector and market
	Markets	Strength of the market, particularly related to affordability and scope of the business
	Operations	Implementation expertise; ability to construct, operate, and manage assets
	Competition	Direct and indirect competition from other SOEs and private sector
	Financial & accounting policy	Policy regarding maximum allowed leverage, investment risk; reasonable accounting standards that reflect true financial position
Financial risk profile	Profitability and cash flow protection	Profit margin; FFO/total debt; EBITDA/interest
	Capital structure and liability management	Asset liability management; foreign exchange risk; interest rate risk

Recommendations—Restructuring of CEDC as a Model UDIC in Chongqing

The financial and operational success of CEDC is important for the long-term development of Chongqing because it provides an ideal platform for successfully implementing and testing the CMG policy toward UDICs. The CMG can take advantage of technical assistance and innovative financing from international institutions such as the World Bank Group to pursue the restructuring and reform of CEDC as a pilot UDIC. Specifically, with international help and leadership from the CMG agencies, the CEDC can be restructured into a financially and professionally independent UDIC that represents the objectives and policies of the CMG.

The following four elements can guide the necessary reform and development of CEDC:

Element I—Financial Restructuring

It is not unusual for a municipal corporation such as the CEDC to be highly leveraged when the toll-road network in Chongqing is being expanded; however, as discussed in Chapter 5, the liquidity position of CEDC is reaching unsustainable levels. Averting a very serious liquidity crisis in CEDC should be a critical priority for CEDC management and the CMG, and the possible remedies must include the following measures:

1. The future debt incurred by the CEDC should be as far removed from the balance sheet of the CMG as possible. This will require a clearer articulation of the CMG's current policy on not guaranteeing the debt of its UDIC.
2. Immediate steps must be taken to reduce the debt service burden of CEDC (see recommendation on cash injection for details).
3. Restructure the CEDC capital structure and financial operations to ensure that it is able to issue debt instruments that are not guaranteed directly or indirectly by the CMG and are backed by an investment-grade credit rating of CEDC. This will require establishing a rational, transparent, and predictable mix of revenues, including user fees (toll revenues) and CMG budget support, for toll-road construction projects in Chongqing that are quasi-operational projects.

Additional measures that may help in the financial restructuring include the following:

1. Implement liquidity management practices and a debt management framework within an outsourced treasury function environment until such time as internal systems of CEDC are capable of these controls. CEDC will require technical assistance and training to develop the necessary controls.
2. Establish an effective comprehensive budgeting process in CEDC to move the focus of senior management and FM staff from project-specific financial packages to the financial viability of the entire corporation.

3. The on-lending from CMG agencies to CEDC should be treated as borrowing and made subject to the same approval and management controls.
4. Any CMG assistance that is directly transferred to CEDC (as opposed to CMG budget support provided to the quasi-operational projects of CEDC) should only be in the form of additional registered capital (equity).

Element II—Liquidity Management

The highly leveraged financial position of the CEDC can be corrected by the strategic injection of capital and reduction in the cash flow demands in the CEDC operations. The following key approaches can be explored to resolve the CEDC liquidity problems with the help of technical assistance and innovative financing from international institutions:

1. Sale of one to two completed toll roads in the international market. International investors, including international road operators, appear very interested in investing in Chinese infrastructure. An innovative, well-structured pilot transaction that is able to package the CEDC assets and value them appropriately can resolve CEDC's current cash flow problems and establish useful benchmark(s) for similar infrastructure transactions in China.
2. Capital (equity) injection by the CMG in CEDC. The CEDC has incurred substantial debt in order to cope with its expanded scope and mandate. As the owner of CEDC, the CMG can inject additional equity in the company to stabilize its financial position, particularly its liquidity position. It is important, however, that the additional CMG equity capital injected in the CEDC is not used for direct investment in new construction project, but is rather used to shore up the financial position of CEDC; i.e., to improve the liquidity position of CEDC so that it can effectively implement the appropriate level of financial restructuring and raise the necessary capital from the market without requiring guarantees from the CMG.
3. Extension of debt maturities. The CEDC debt, accumulated one project at a time, is currently not in line with the current financing needs of the CEDC. Specifically, the current CEDC debt does not fit the profile of CEDC assets. It is therefore important to undertake a full review of the CEDC capital structure and restructure the current debt to fit the long life of high-quality CEDC assets. This approach can be successful if it is implemented in conjunction with the financial restructuring recommendations outlined above. The success of CEDC will also require technical assistance and innovative financing from international or national lenders, or both.

Element III—Corporate Governance Reform

The financial restructuring and financial independence goals of CEDC cannot be accomplished without strengthening the corporate governance framework. Corporate governance clarity is necessary to shift the focus to CEDC's overall financial viability (i.e., the corporate balance sheet) and make management as well as the relevant CMG agencies accountable for specific functions and roles. The following four internal

systems should be the focus of corporate governance reforms, possible via the process of establishing committees reporting to the board of directors.

1. Assets and Liabilities Management Committee: To formulate policies and controls governing UDIC's financial risk management activities with respect to liquidity, leverage, investments, interest rates, and credit. The committee sets risk management parameters for each risk category while reviewing performance of the CEDC treasury function. All controls are can be set within the parameters mandated by the CSASAC and other prescripts of the government regulations and are subject to board approval.
2. Project Evaluation Committee: To provide oversight on all proposed projects and to ensure that all feasibility studies and documentation for board approval meet the objective financial criteria and the availability of necessary funds, and are available to finance quasi-operational projects from toll fees and CMG budget support, as well as social and economic viability.
3. Contracts Committee: To oversee the award and monitoring of all contracts.
4. Corporate Audit Committee: To review all accounting policies and financial reporting and ensuring that effective internal controls are maintained, including risk assessment oversight. To ensure compliance with annual internal and external audits rules and oversee efforts to ensure that CEDC is moving toward accounting policies that meet International Generally Accepted Accounting Practice.

Element IV—Utilizing Toll-Road Concessions

The CEDC should strategically increase the use of concession agreements to build toll roads in order to reduce the demand on the CEDC corporate balance sheet for capital financing. The advantage of concessions is that during the concession period the infrastructure can be both built and maintained at no cost to the CEDC, and at the end of the concession period the CEDC will receive a debt-free asset. Further, the projects are funded without recourse to CMG and are considered “off balance sheet” in the sense that all significant risk is transferred to the private sector. The CEDC, however, will require technical assistance in order to cope with (a) the technical demands associated with preparing good concession contracts and projects, and (b) outreach to local and international qualified and interested private sector partners.

ANNEX 1. CEDC'S HISTORY AND GENERAL INTRODUCTION

CEDC is an investing and financing company entrusted by CMG.^{xv} It is responsible for financing, constructing, and operating all expressways in Chongqing. CEDC is a large-scale SOE with RMB 2 billion registered capital. Its operations are supervised by CSASAC and CCC. In accordance with the modern enterprise system, CEDC has established a legal governance system, with the general manager taking full responsibility under the board of directors.

The CEDC, formerly known as Chongqing Highway Construction Administration Division (established in 1987) and Chongqing High-grade Highways Construction Directorate (established in 1988). The CEDC was established in 1994 to allow Chongqing to raise capital for expressway development. The company was restructured in 1997 when the management of its daily affairs was transferred to the Foreign Economy & Affairs Department in the former Chongqing Communication Bureau. In October 2000, the CEDC was established to integrate all the available resources in expressway construction. The CEDC mandate includes funding, financing, constructing, and operating toll roads, including tolling and loan repayment. The CEDC is now one of the eight main investing and financing groups established by the CMG. In October 2004, CEDC split its construction and operation responsibilities into two subsidiaries that are further organized in departments based on regional areas of focus and functional expertise. The CEDC and its joint venture partner are undertaking an ambitious toll-road construction program in Chongqing. The current “two-ring, eight-radiation” plan calls for constructing 2,000 kilometers of toll roads, of which the 1,200 kilometers has been completed.

In addition to managing the toll-road's construction and operations, the officially stated goals of the CEDC also include strengthening internal management, expanding commercial fields (new business development), establishing anti-corruption rules, and developing versatile businesses (financial sustainability).

ANNEX 2. THE UDIC MODEL AND NATIONAL POLICY

The establishment of UDICs closely followed the changes in national policy regarding local governments. The creation of UDICs stems from the central government directive in the early 1990s that the infrastructure development responsibility should be removed from direct local government departments and corporatized into separate municipal entities. The strategy is referred to as “*marketization*” of infrastructure development in China. Several related fiscal and banking sector policies provided significant support to the UDIC-led infrastructure development in Chinese cities. The fiscal policies in particular were the key drivers of the growth of the UDIC model. Not surprisingly, the transition of China from the *pro-active* fiscal policy after the Asian Financial Crisis to the *prudent* fiscal policy in 2004 played an important role in explaining how the UDICs have gradually but steadily come under significant financial and operational pressures. The four key policy areas are discussed below.

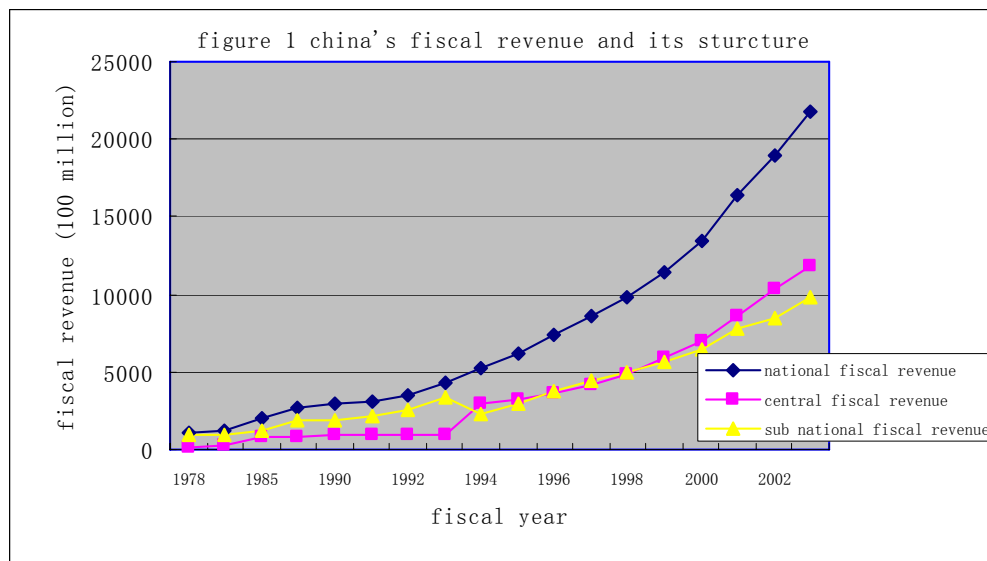
1. Infrastructure Development and Incentives for Local Government Leaders. The Chinese government operates a comprehensive multiyear reporting system which monitors progress vis-à-vis the five-year plans. The five-year plans are prepared under the leadership of the NDRC at all levels of the government and they define targets for physical development as well as economic growth benchmarks, such as GDP growth rates, which are translated down to regional targets for the local governments. The targets are taken seriously at each level of the government; progress is also monitored by the Communist Party leadership. The goals and targets of the national plans form the critical incentive structure for leaders at all levels of the government, as the leaders are rewarded for reaching or exceeding the goals. The development of infrastructure (physical development goals) is widely viewed as one of the most prominent indicator of the success of local leadership.

2. Fiscal Decentralization. The pre-economic liberalization era in China was marked by command and control economy in which the local governments were completely dependent upon the central government. The central government made all the decisions regarding revenue collection, and allocated the revenues to the local governments according to central government priorities. The economic reforms which began in 1978 also brought about the decentralization of economic power to the local governments. The fiscal decentralization process started in 1980 that devolved many powers to the local governments to finance their own needs. By 1988, the process had evolved into a system of six revenue sharing contracts between local and central governments, which included contract to share incremental revenues, proportional sharing of base revenue, proportional base sharing plus incremental sharing, contractually designated incremental remittance amounts, fixed remittance, and fixed central subsidy. The subsequent changes in the system in 1993 provided the local government’s additional authority to make their own decisions about revenue collection and economic development. Importantly, the system incentivized the local governments to transfer the key revenue generating activities to off-budget operations which were not subject to the revenue sharing contracts with the central government. Hence, the UDICs provided an ideal off-budget platform for the local governments to take advantage of their new found ability to introduce various kinds

of special fee, special charges and revenues derived from land leases to finance municipal infrastructure.

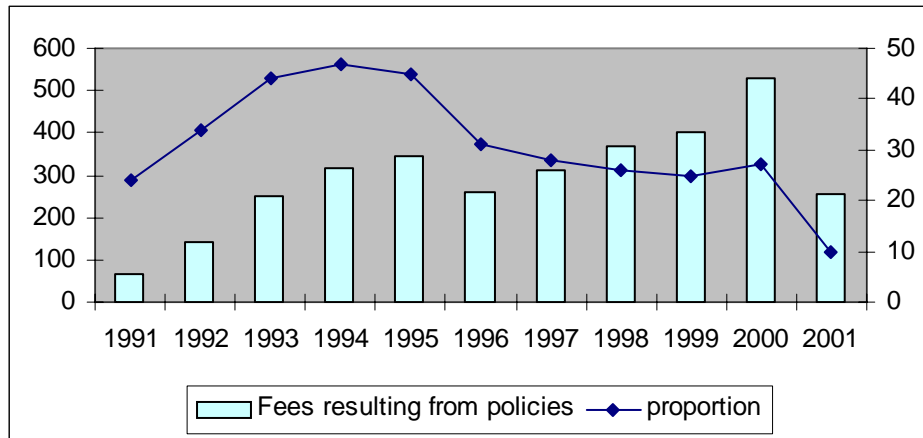
In 1994 the central government started to pull back the revenue generation authority which had earlier been devolved to the local governments. The 1994 fiscal reforms replaced the revenue-sharing contracts with a tax and revenue assignment system which reduced the local government share of the total fiscal revenues. Since 1994 there has been a steady and significant decline in the number of local government revenue generation sources and the amount of revenues they provide to the local government. At the same time, the expenditure assignments for local government have not changed. It is important to note that while the fiscal pressures have significantly limited the authority of the local government (and its entities) to generate revenues, the new rules have not directly stopped the local governments from using off-budget entities such as UDICs to raise financing. The following Figure A2.1 provides a good description of the changes in the local government revenues after the 1994 tax reforms.

Figure A2. 1: Changes in local government revenue after tax reform in 1994



3. Local Government Authority. The local government budget is legislated and approved by the local Peoples' Congress, i.e., the local governments do not have to submit their budget to higher level of government^{xvi}. However, the local governments do have to report their budget to the higher level of the government, and the budget must comply with the national Budget Law. The Budget Law prohibits the local governments from deficit financing, market borrowing and issuing municipal bonds. The subsequent changes in the tax structure since the end of 1993 have shifted the responsibilities for approving all new local government taxes and modification of the rates of all local taxes to the central government. The precipitous drop that occurred during 1993 – 2001 in the proportion of total infrastructure development expenditures which could be financed with local government fee and changes is described in Figure A2.2 below. While current data is not available, it is widely estimated that this trend has continued into 2006.

**Figure A2. 2: Share of urban infrastructure investment financed by fees and charges
(RMB 100 million)**



Source: Qin Hong, Deputy Director General, Policy Research Center, Ministry of Construction: “China Municipal Public Utility Investment and Financing Status and Reform Direction”

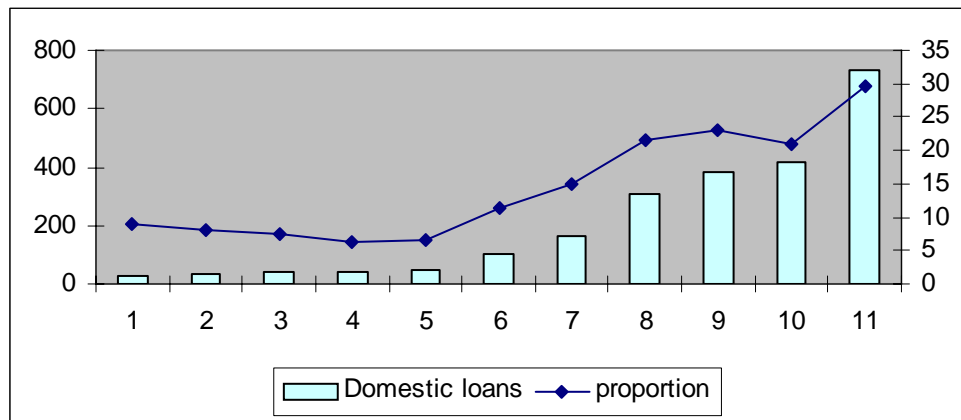
It is clear that within the narrow window of shrinking local government revenues and weakening local government authority to increase rates or introduce new local fees and charges, the UDICs provide one of the few remaining avenues for local government to continue their capital expenditures in infrastructure development. However, the ability of the local governments and their entities to service the off-budget borrowing has been severely reduced since 1993. This is particularly significant because the demand for infrastructure (and the resulting need to raise off-budget financed capital expenditure) has steadily increased over the same period of time.

4. Financial Sector Development and Banking Sector Reforms. In the early 1990s when the government strategy of “*marketization*” of infrastructure development was being aggressively pursued, all the banks in China were owned by the state and the use of banking sector to finance urban infrastructure was an accepted national policy. The type of market debt which was used by the local government entities to finance infrastructure also presents risks. The majority of the outstanding debt associated with the borrowing by local government entities is reported to be of short-to-medium term maturities, i.e., five to eight years. The short maturity of debt used to finance infrastructure projects (which by definition require long gestation periods) puts further pressure on the cash flow of local government entities. This maturity mismatch was less of a problem for the local government entities when they could receive low interest rates and/or flexible roll-over terms from state-owned banks. Moreover, the central government has also continued to issue infrastructure bonds for local governments on-lending and on-granting. For example, the central government provided approximately RMB 131.7 billion to local governments during 1998 – 2004 under these policies. It is anticipated that the issuance of bond will be cut off under the current sound fiscal policy.

The steady decline in budget support available to local governments to finance infrastructure development over the years has been compensated by an extraordinary increase in market borrowing by off-budget local government entities during the same

time period. The Figure A2.3 below describes the sharp increase in market borrowing by local government entities from 1991 to 2001, which corresponds closely with the decline in the local government budget support for infrastructure development – Figure A2.2 above.

**Figure A2. 3 Share of urban infrastructure investment financed by loans
(RMB 100 million)**



The total banking sector debt for local government units for urban infrastructure^{xvii} was RMB 74.2 billion in 2001. It is estimated that the market borrowing has continued to increase at a significant pace since then. It also appears that the sharp increase in market borrowing by off-budget local government entities has also been accompanied by increasing lack of transparency regarding the financial accounts of the off-budget entities. While the accounts of UDICs and other off-budget entities in some reform-minded cities (e.g. Chongqing) are available. It is not possible to obtain a current aggregate estimate for the total market borrowing for infrastructure development by local government entities.

The on-going banking sector reforms have significantly changed the relationship between the local governments (and their entities) and the banks. The financial deregulation and the anticipated competition from foreign banks require the banks to improve their credit standards and clean up their non-performing loan portfolios. The increased scrutiny of the balance sheets of the banks means that it is no longer easy for the local government entities to roll-over old debt at convenient terms. However, the incentive structure – supported by current political economy – continues to point against outright loan default or write-offs. Importantly, the banking sector has continued to extend credit to local government entities because of: (a) excess liquidity and strong competition in the market, (b) low capacity of the banks to conduct credit appraisal, and (c) implied guarantees of the local governments.

The continued ineffectiveness of the private market to make credit-based investment decisions vis-à-vis the borrowing by local government entities has forced the GOC to move cautiously on the development of other channels of capital supply for infrastructure. For example, the MOF has continued to rely upon a very conservative case-by-case review of the applications for corporate bonds by local government entities, instead of

establishing a rule based system for the local government entities to issue corporate bonds. The anticipated policy changes for establishing a framework for the issuance of municipal bonds appears to be moving at a very slow pace.

ANNEX 3. CHONGQING BACKGROUND

Geographic Location

Chongqing located in the Southwest part of China by the Jialing River and the upper reaches of the Yangtze. Its geographic position makes Chongqing a strategic hub connecting the East and the West of China. It adjoins five provinces: Sichuan, Hubei, Hunan, Guizhou, and Shaanxi. Chongqing is one of the four provincial-level municipalities in China that are directly administrated by the central government. With an area of 83,000 square kilometers and a population of more than 31 million, the Chongqing municipality includes 43 districts, counties, and autonomous counties. It is the only transportation hub that provides waterway, highway, and airborne channels to the West part of China. There are five cross-country highways connecting East–West and South–North parts of China that intersect in Chongqing. 3,000-ton ships can directly travel in the Yangtze River from Shanghai ports to Chongqing ports. The Chongqing Jiangbei International Airport is also classified as one of the national key air traffic hubs in the nation

Economical Status

Chongqing is the economic powerhouse of the Southwest and the upper region of the Yangtze River. As one of the four provincial municipalities in China, Chongqing is a modernized port city that plays an important role in regional and national economic development. Chongqing is one of the oldest and fastest-growing industrial bases in China. It is also the major distribution center for the electricity network in the West. The establishment of Chongqing Municipality has accompanied the upgrading of old industrial bases and large-scale investments in infrastructure. The city has also experienced unprecedented migration due to the construction of the Three Gorges Dam. The central government and the CMG have stated the vision of converting the city into “three centers (commercial and trade center, financial center, and science and technology, education and information center), two hubs (transportation hub and telecommunication hub), and one base (modern high-tech industrial base).”

National Policy Programs Contributing to the Development of Chongqing

Several central government policies have played a critical role in the development of Chongqing. Although direct investment from the central government has slowed down in Chongqing in recent years, the influences of the strategies and the accompanying well-funded programs are undeniable. The three most relevant policies are as follows:

1. “Go West strategy”. This important and well-funded national development strategy of developing the West part of the China was perfectly aligned with the vision and objectives of Chongqing. It provided tangible central government financial support and directly promoted the development of infrastructure and other important services in Chongqing. For example, in 1999 the central government provided RMB 3.68 billion from the state treasury bonds to Chongqing, which accounted for 41 percent of municipal budget revenue that year. In 2000, the received state treasury bonds has significantly increased to RMB 6.5 billion (an increase of 77 percent over the previous year),

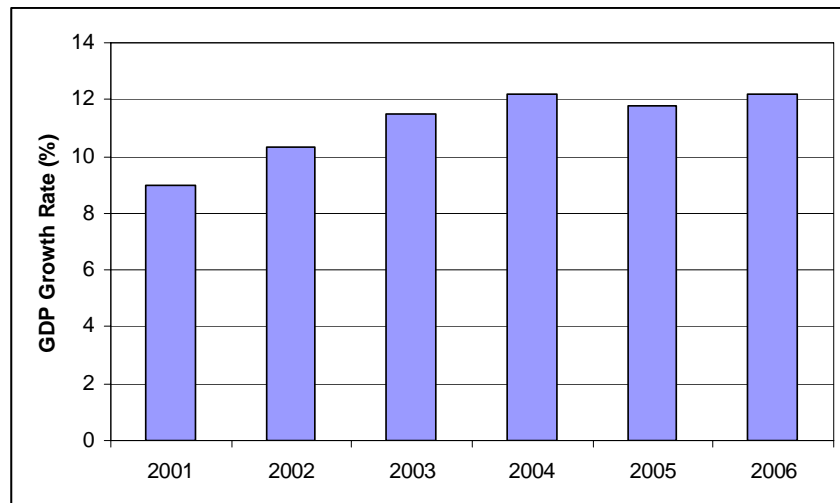
accounting for 62 percent municipal budget revenue. Chongqing’s elevation to a provincial-level municipality greatly assisted it in competing against other western provinces such as Gansu, Shaanxi, and Sichuan for the limited central government funding available under the “Go West” programs.

2. “Building Harmonious Society.” In recent years, the central government has strongly promoted the “Building Harmonious Society” policy, which particularly focuses on balanced development between the urban and rural areas. This strategy has significant impact on development of Chongqing, as the central government intends to allow Chongqing to implement a new development strategy called “the big city leading the big countryside.” Unlike the other three municipalities (Beijing, Tianjin, and Shanghai), Chongqing has a large size of rural area and a large number of poor people living in the mountainous areas. These factors, along with the need to relocate a large number of people from the Three Gorges Project, made Chongqing a strong case for central government funding and policy assistance in building infrastructure to make the urbanization process more efficient in Chongqing.

Economic Growth

As Figure A3.1 shows below, Chongqing has achieved an average GDP growth rate of 11 percent from 2001 to 2006. The economy is based on four key industries: (1) automotive, (2) equipment manufacturing, (3) natural resource processing, and (4) high tech. Chongqing is the largest motorcycle manufacturing and the third-largest automotive manufacturing industry in China. As an old industrial base and a natural-resource-rich region, Chongqing also enjoys special advantages in equipment manufacturing and natural resource processing. CMG is promoting high-tech to become one of its four pillar industries.

Figure A3. 1: Chongqing GDP growth rates from 2001 to 2006



Source: _Chongqing Finance Bureau

In 2006, the growth rate in Chongqing was higher than the national average growth rate. From 2005–2006, the growth rate for manufacturing was 18 percent, 10 percent for construction, and 14 percent for the service sector. The growth rate for the agriculture sector, however, was -7.5 percent, which was primarily due to because of the severe drought. The sector contribution to the total production output from agriculture, industry, and services was 12 percent, 43.2 percent, and 44.8 percent, respectively. The three key factors that contributed to the strong economic growth in Chongqing were: (1) increased investment in fixed assets by 26.7 percent. (2) 33.7 percent increase in motorcycle production, and (3) increased auto manufacturing production by 76.5 percent.

Many international and local observers expect positive prospects on Chongqing's economic growth. In 2003, the WB ranked Chongqing the fifth-most competitive city (in terms of investment climate) in China. The ranking was so important that it not only showcased the rise of an economic powerhouse in the Western part of China, but also signified the development of new non-export-based strength of the Chinese economy; as Chongqing is far behind many East Coast cities in terms of exports.

Table A3. 1: Financial position of the eight UDICs

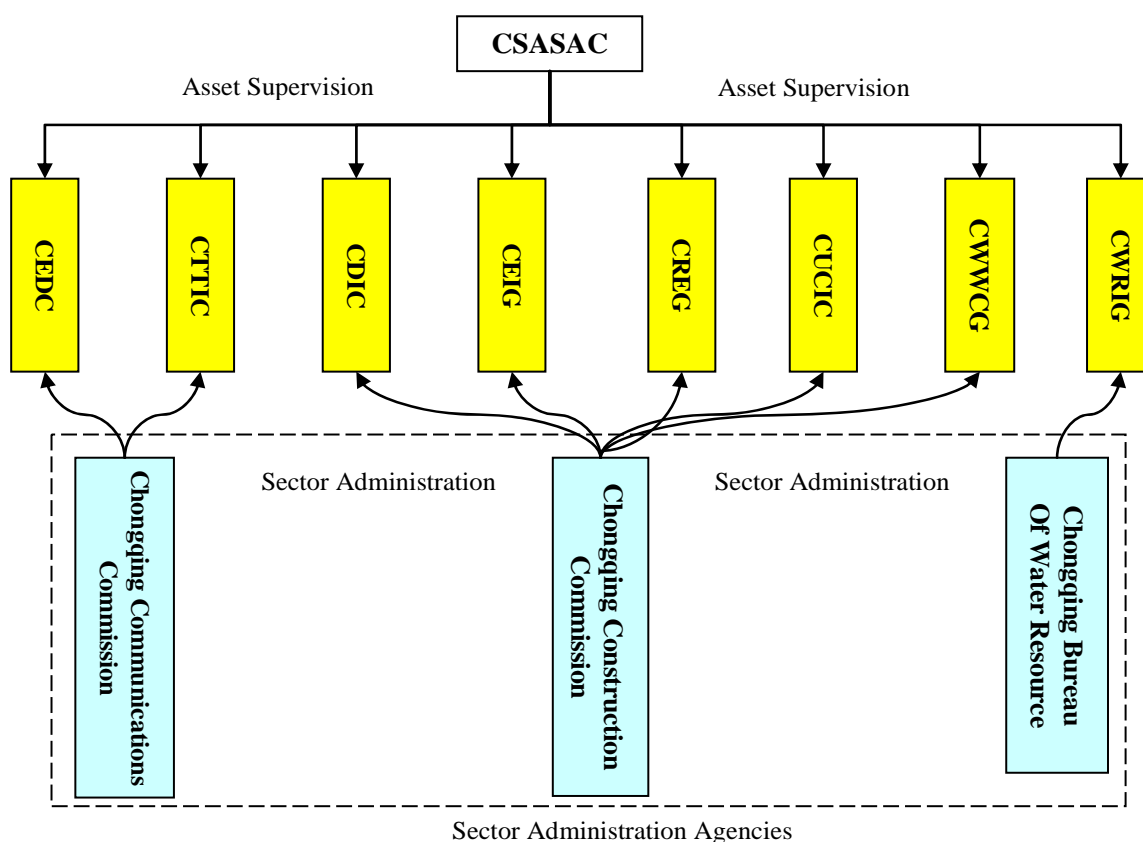
Chongqing Expressway Development Company	Chongqing Development Investment Corporation	Chongqing Real Estate Group	Chongqing Urban Construction Investment Corporation
<p>Chongqing Expressway Development Company is vehicle for highway construction, management, and financing in Chongqing area. In the end of 2006, its total asset is 50 Billion Yuan, total debt 34.5 Billion Yuan, and debt/asset ratio 69%. With investment of 26.4 Billion Yuan and financing of 30.4 Billion Yuan accumulated in last three years, the Company has invested and completed major projects including Chongqing-Linshui Highway, Qijiang-Wansheng Highway, Hechuan-Wusheng Highway, and Wanzhou-Kaixian Highway.</p> <p>During 11th Five Year Plan, the company plans to invest 82.3 Billion Yuan in more major highway projects, which include Chongqing-Shuining, Wanzhou-Yunyang, Yunyang-Fengjie-Wushan, Shizhu-Zhongxian, Hong'an-Zhongxian, Hong'an-Qiuyang, Qiuyang-Dahan-Qianjiang, Dianzhong-Shuijiang-Jieshi, Hejiang-Jiangjin, Wulong-Penshui-Qianjiang, and out-ring beltway.</p>	<p>Chongqing Development Investment Corporation is the comprehensive investment vehicle for rail transportation, railway investment, construction, and management, and major infrastructure for urbanization. In the end of 2006, its total asset is 10.6 Billion Yuan, total debt 6.2 Billion Yuan, and the debt/asset ratio 59%. With the investment of 7.5 Billion Yuan and the financing of 5.5 Billion Yuan accumulated in the last three years, the Company has completed the projects of the second and third railway line, Yuzui Development, Land Storage, and Tongxing Garbage Disposal Site.</p> <p>During the 11th Five Year Plan, the Company is planning to invest 23 Billion Yuan in Downtown Railway Projects (The Third Line, and the First Line), Railway Projects of Yuli, Lanyu, and Nanpei, Yuzui Development, Lujiao Stripe Development, and the third phase of Chongqing Airport expansion project.</p>	<p>Chongqing Real Estate Group is responsible for the investment, financing, and construction for land storage and rehabilitation, infrastructure projects, and other projects for public benefit. In the end of 2006, its total asset is 29 Billion Yuan, total debt 13 Billion Yuan, and debt/asset ratio 45%. With the investment of 14.5 Billion Yuan and financing of 16.7 Billion Yuan accumulated in the last three years, the Group has purchased the land property of Lower Zengjiayan, Wireless Factory, the Third Chongqing Textile Factory, Old site of Equipment Factory, College Town, West Yongwei Electronic Zone, Central and Southern Business Zone, and Yuelai Stripe. The Group also has invested and completed major projects including Children Palace, Xingai Road, Three Gorge Museum, Olympic Center, Science Museum, Gaojiu Road, and Jiayue Bridge. In addition, the Group co-funded the Greater Oriental Life Insurance Company. During 11th Five Year Plan, the Group is to invest 25 Billion Yuan in land storage of Jiulongpo Stripe, Dadukou Stripe, Caijia Stripe, Nanchuan New Town, and construction of Jiayue Bridge, the Eighth Hospital, the relocation of China Medical Hospital, Library, Guotai Arts Center, 811 Factory of Micro-Electronic Garden, and Sino-Korea International Industrial Garden.</p>	<p>Chongqing Urban Construction Investment Corporation serves as the main financing channel for the metropolitan infrastructure, the main accounting for the road and bridge construction in Downtown, and the main land owner for infrastructure projects. In the end of 2006, its total asset is 43.6 Billion Yuan, total debt 26.2 Billion Yuan, and debt/asset ratio 60%. With the investment of 16.3 Billion Yuan and the financing of 29.7 Billion Yuan accumulated in the last three years, the Company has invested and completed the International Convention Center, Planning and Exhibition Center, Shibampo Changjiang River Roundway Bridge, Daping Junction Project and Caiyuanba Changjiang Bridge, Jiahua Bridge, and Niudi Road.</p> <p>During the 11th Five Year Plan, the Company is planning to invest 25 Billion Yuan in building Yudong Changjiang Bridge, Chaotianmen Changjiang Bridge, Jiahua Bridge and North/South Extension Project, Chaotianmen Tunnel, Baishiyi-Xipeng Road, and Caijia-Shuangbei Road.</p>

Chongqing Energy (Construction) Investment Corporation	Chongqing Transportation and Tour Investment Company	Chongqing Water Resources Investment Company	Chongqing Water Works Controlling Group
<p>Chongqing Energy (Construction) Investment Group is responsible for the investment and management in electricity, gas, and coal projects. In the end of 2006, its total asset is 16 Billion Yuan, total debt 7.2 Billion Yuan, and debt/asset ratio is 45%. With the investment of 1.8 Billion Yuan and the financing of 500 Million Yuan, the Group has invested and completed 5 power plants including the Third Phase of Gehuang Power Plant, Hechuan Shuanghui Power Plant, Wansheng Power Plant, Youchou Hydropower Plant, Chengkou Bashan Power Plant, and 5 gas projects including Outer Ring Network with higher supply capacity, Inner Right Network with high supply capacity, Toutang Gas Storage Station and SCADA System, Liudianzi Gas Storage Station, the reconstruction of downtown pipeline, as well as coal projects including Xinglong Coal Mine, Yanjing Coal Mine, and the expansion project of Zhangshiba Coal Mine. During the 11th Five Year Plan, the Group is to invest 20 Billion Yuan in the reconstruction of Hechuan Weixi Power Plant, Little Nanhai Power Plant, Outer Gas Ring Network, and Gas Supply Pipeline, and purchase Liyuanba Coal Mine, Little Yutuo Coal Mine, Fengsheng Coal Mine, and Mukong Coal Mine.</p>	<p>Chongqing Transportation and Tour Investment Company is the vehicle for highway investment, construction, and management, as well as investment, development and management for tourism attractions. In the end of 2006, its total asset is 19.3 Billion Yuan, total debt 11.2 Billion Yuan, and debt/asset ratio 58%. With the investment of 10.3 Billion Yuan and the financing of 11.8 Billion Yuan accumulated in last three years, the Group has invested and completed major projects including Dazu-Rongchang Highway, Zhangnan-Hechuan Highway, Yongchuan-Luzhou Highway, and the purchase of inter-county roadways.</p> <p>During the 11th Five Year Plan, The Group is planning to invest 23 Billion Yuan in building Qianjiang-Shizhu Highway, Wanzhou Beltway, Changshou Changjiang River Bridge, and the second inter-county roadway network, as well as developing major tourism attractions of Three Gorges, Wujiang River, and other historical cities, including Fengdu, Fengjie, and Nanchuan.</p>	<p>Chongqing Water Resources Investment Company is responsible for the investment and construction for water conservancy projects and small hydropower plants, and the investment and management for water supply and drainage projects. In the end of 2006, its total asset is 6.8 Billion Yuan, total debt 3.2 Billion Yuan, and debt/asset ratio 47%. With the investment of 3 Billion Yuan and financing of 4.9 Billion Yuan accumulated in the last three years, the Company has completed Wuxi Kongliang Reservoir Project, Yunyang Xianchi Reservoir Project, the Second Xiushan Water Factory, and the Emergency Pipeline Project in College Town. During the 11th Five Year Plan, the Company plans to invest 12.6 Billion Yuan in reservoir projects including Kaixian Liyutang Reservoir, Dazu Yutan Reservoir, and Bananguan Jingkou Reservoir, Zeyu Project, water source projects including Shengqingshan Lake, Yubei Guanyindong, and Bishan Shanjiang, water raising projects including Songji and Tongguanyi, hydropower projects including Zhongliang and Jinjiaba, Sewage Projects including Tuzhu, Xiushan, and Chayuan, water supply projects including College Town and East Chayuan, and flood control projects including downtown of Xiushan County and Kuxi River</p>	<p>Chongqing Water Works Controlling Group is responsible for providing water supply, drainage, wastewater treatment integrated services to urban areas. In the end of 2005, its total asset was 10.8 billion Yuan, total debt 5.1 billion Yuan, debt/asset ratio 47%. The group has 10 subsidiaries, including Chongqing Water Supply Company, Chongqing Drainage Company, Chongqing Three Gorges Water Services Company, Public Utility Investment Development Company, Chongqing Yunan Water Supply Company, Chongqing Yuxi Water Supply Company, Chongqing Wansheng Water Supply Company, Water Service Construction and Management Company. It also has four project construction offices and four holding control companies.</p>

ANNEX 4. THE CMG SUPERVISION OF UDICS

The framework of CMG supervision on UDICs consists of asset supervision and sector administration as described in Figure A4.1. Four key CMG agencies are responsible for supervising the eight UDICs: (1) CSASAC, (2) CCC, (3) Chongqing Construction Commission, and (4) CBWR. As the designated state asset investor/owner, the CSASAC is the primary regulatory authority, while the remaining three agencies provide sector-related operational supervision functions.

Figure A4. 1: Overview of the oversight framework of the UDICs



The CSASAC

Since its establishment in 2003, the CSASAC has become the primary owner and supervisor of the UDICs,^{xviii} while the scope of supervision of the traditional sector-specific agencies has been reduced. Under the leadership of Mr. Cui Jian, CSASAC has become an active administrator with supervision and administration authority over about 40 municipal SOEs, including the eight UDICs. An important element of the 2003 reforms is that SOEs are not allowed to establish more than one tier of subsidiary company^{xix}; therefore, approximately 500 subsidiaries of the SOEs are under CSASAC's supervision. A total of four out of the 12 divisions of the CSASAC are directly involved in the supervision activities. Box A4.1 presents the key functions of the CSASAC, and Table A4.1 describes the key elements of CSASAC supervision of the UDICs.

Box A4. 1: The Chongqing State Asset Supervision and Administration Commission (CSASAC)

The CSASAC undertakes the following functions:	
▪	Perform the functions as an investor according to laws and administrative regulations and promote the reform and reorganization; supervise the preservation and increase the value of state property; strengthen the administration of state-owned property; enhance corporate governance; and promote the adjustment of economic structure.
▪	Represent the municipal government on the boards of supervisors of Chongqing’s SOEs; and take charge of the routine work of boards of supervisors;
▪	Appoint and discharge the heads of key municipal enterprises and evaluate their performance, establish a modern personnel mechanism, and implement the compensation system;
▪	Supervise and manage the preservation and increase the value of state interests in the SOEs by using statistical work and auditing; establish a monitoring system for preserving and increasing the value of state investment in the SOEs, including establishing standards for valuation; and protect the rights and interests of the investors.
▪	Draw up local laws and administrative regulations for administering state-owned assets; and instruct and supervise the state-owned asset administration in districts and counties.
▪	Undertake other tasks as assigned by the SAASC of the State Council, Chongqing Municipal Committee of China People’s Congress, and the CMG.

Source: www.cq.gov.cn

Table A4. 1: CSASAC supervision functions

1. Supervising senior managers	<ul style="list-style-type: none"> ▪ UDIC chairmen, general managers, and party secretaries are approved by the CMG and appointed by CSASAC. ▪ UDIC vice senior managers are appointed directly by CSASAC.
2. Supervising asset	<ul style="list-style-type: none"> ▪ Important changes to the SOE assets have to be regulated, supervised, and approved by CSASAC.
3. Supervising financial performance	<ul style="list-style-type: none"> ▪ UDICs provide monthly financial reports to CSASAC. ▪ UDICs provide quarterly work summary report to CSASAC. ▪ The supervision committee of UDIC carries out day-to-day supervision of the financial performance of UDIC.
4. Supervising important operations	<ul style="list-style-type: none"> ▪ CSASAC supervises all important operation issues. ▪ CSASAC usually participates in all board meetings.

CSASAC Supervision Authority

The CSASAC supervision authority over UDICs is substantively derived from an important CMG policy entitled *Circular on Strengthening the Supervision and Administration of the State Owned Enterprises*.^{xx} The policy is based on the following key elements: (1) establishing the principles and systems for state-owned administration at different levels; (2) defining the CSASAC responsibility for supervising SOEs; (3) identifying the primary responsibilities of SOEs vis-à-vis the operations of their subsidiaries; (4) specifying the main responsibilities of SOE subsidiaries; (5) establishing a detailed SOE reporting structure to the CSASAC; and (6) defining actions that must be reported to the CSASAC. In particular, the framework requires the SOEs to report the following actions to the CSASACs:

- Changes to working capital or registered capital of UDICs; asset trades or other important transactions; transfer of state-owned stock in the UDICs or their

subsidiaries; important asset or debt restructuring among subsidiaries of UDICs; all asset transfers with transaction prices below 90 percent of appraisal prices; and other projects that require CSASAC review and approval.

- Internal administrative procedures of the UDICs; any decisions involving investments or use of guarantees; asset trades or other transactions of UDIC subsidiaries; annual statement of income of UDICs; changes to working capital or registered capital of subsidiaries; accounting losses according to the standard accounting principles; and any projects needed for archiving or memo purposes.

CSASAC Divisions Involved in UDIC Supervision

- *Division of Policies and Regulations.* Study and establish rules and regulations for administering and supervising SOEs; coordinate preparation of laws, regulations, and important policies; study legal issues in reforming and developing SOEs and state holding enterprises, and guide legal consultation of these enterprises; and undertake legal affairs of the commission.

- *Division of Evaluation and Allocation.* Develop the accountability system for property management; study, suggest, and implement strategies to preserve and increase of the value of state-owned assets; carry out comprehensive research on SOE operation; exercise comprehensive performance evaluation; study and offer proposals and measures of accountability for important decisions; reform the income distribution system; exercise regulation and control of the wage levels; and study and establish the compensation system for senior managers.

- *Division of Statistical Evaluation.* Take charge of the statistical work of SOEs and the financial accounting and filing of SOEs under its regulation; maintain records of the financial position of state-owned capital; establish methods for valuating state-owned assets in SOEs; build and improve a performance evaluation system; make policies, regulations, and measures for asset and capital verification of state-owned and state holding enterprises, and arrange asset and capital verification of enterprises under its regulation; and take charge of the write-off of capital loss of enterprises according to the accounting rules for SOEs.

- *Division of Industrial Property.* Study and offer proposals for reforming the asset management system and methods of management; establish regulations and measures of management for determining, registering, transferring, and disposing of state-owned assets and mediating property right disputes; verify and record asset evaluation of enterprises; supervise the budget program and apply capital gains; examine the capital variation and transfer of stock ownership and bond issue programs of UDICs; and regulate the trade of state-owned assets.

- *Division of Enterprise Reform (Chongqing Municipal Office of Enterprises Merger and Bankruptcy).* Develop reform principals and policies for SOEs and state-owned shareholding enterprises, and guide them to establish a modern corporation system and improve the business governance structure, including researching plans of merger, stock system transformation, initial public offering, joint investment, and the establishment of state-owned-assets operation companies.

- *Division of Board of Supervisors (Office of Board of Supervisors for SOEs, Division of Auditing).* Manage the behavior of the board of supervisors according to

the Provisional Regulation of Board of Supervisors for SOEs, review the responsibilities of the management of municipal SOEs, and guide the internal auditing of enterprises under supervision.

- *Division of Managing Enterprise Leaders (Division of Training, Division of Personnel, Division of the Retired).* Oversee developing and training SOEs and state-owned shareholding enterprises staff, and organize the review of the management performance of enterprises that are under supervision.

The CMG Agencies Responsible for Sector-Specific Supervision of UDICs

Three CMG agencies conduct sector-specific supervision of the eight UDICs. These include the CCC, Chongqing Construction Commission, and CBWR. The CCC is responsible for sector-specific supervision of CEDC and CTTIC. The Chongqing Construction Commission supervises CDIC, CEIG, CREG, CUCIC, and the CWWCG, while the CBWR monitors the progress of CWRIC.

- *CCC.* A total of four out of the 17 divisions of CCC participate in operational supervision of CEDC and CTTIC; these include (1) Policy and Regulation Division, (2) Finance Division, (3) Highway Construction and Management Division, and (4) Comprehensive Planning Division.
- *Chongqing Construction Commission.* The commission takes charges of national and local principles, policies, laws, regulations, and rules concerning urban infrastructure construction, investigation and design consultation for the building industry, engineering construction, real estate industry, and municipal public utilities. The primary divisions involved in UDIC supervision include (1) Policy and Regulation Division, (2) Development and Planning Division, (3) Construction Management Division, (4) Key Project Construction Division, (5) Urban Infrastructure Construction Division, and (6) Housing Construction Division.
- *CBWR.* The scope of the CBWR's responsibility includes supervising the implementation of national and municipal laws, regulations, principles, and policies regarding water resources; performing integrated management of water resources and supervising implementation; and managing the water conservancy projects.

ANNEX 5. CMG FOREIGN EXCHANGE RISK MANAGEMENT STRUCTURE

The Report of the Chongqing Municipal Bureau of Finance Concerning Management of Exchange Rate Risk of the Foreign Debts of the Municipal Government

The Executive Vice Mayor Qifan,

In order to take the initiative in responding to the fluctuations in the international financial market, actively prevent risk of the foreign debts, and reduce the pressure brought by changes in the interest rate and exchange rate on the project-related work units to repay the debts as well as the impact incurred on the balance of the fiscal revenue and expense of the municipal government, our bureau has been, under your leadership and with your care, actively carrying out the management of the foreign-debt risk since 2004. Up to now, we have signed currency swap agreements for a total of 74 billion Japanese yen debts for a number of projects including the project of Chongqing Rail Transit Corporation with loans from JBIC, the project of Chongqing Highway Development Co., Ltd., the Project of CWWCG the project of “Surplus Return,” the Chongqing education project with on-lent loans in Japanese yen. Delivery of some of these projects in Phase 1 and Phase 2 has been realized. A total of 3.07 million RMB was saved for the project-related work units. The relevant information is as follows:

Establish the systems and regulations, define the procedures and adopt accountability

According to the Notice Concerning the Relevant Issues about the Foreign-debt Risk Management (Finance/Office/Monetary [2005]No. 25), Management Methods of the Loan and Donation of International Financial Organizations and Foreign Governments (No. 38 Decree of the MOF) and other relevant documents, our Bureau has, after taking into consideration of the reality of the Municipality, formulated the Notice of the Chongqing Municipal Bureau of Finance Concerning the Relevant Issues about the Foreign-debt Risk Management of the Chinese Government (Yu/Finance/Foreign [2005] No. 44) and the Pre-planning of Emergency Response to the Foreign-debt crisis of the CMG (in the process of submission and approval), in which we have defined the basic principles for the management of foreign-debt risk, reporting system, and relevant work procedures of currency swap, and clearly defined the responsibilities of different departments in the management of foreign-debt risk. Meanwhile, our bureau is revising the Management Methods of the Loan Repayment Reserve of Foreign Debts of the CMG, in order to further standardize the establishment and utilization of the loan repayment reserve. The establishment of these systems has laid a solid foundation for the improvement in the foreign-debt management level of the municipal government and the practical efforts to prevent the foreign-debt risk.

Actively move ahead with the currency swap efforts of the foreign debts

It is a brand new work for the municipal finance workers to conduct foreign-debt currency swap with financial derivatives. Following your instruction, “It’s not right to do nothing about the exchange rate risk. The municipal government cannot sit around and take this matter lightly,” we have organized business consultations and discussions with Union Bank of Switzerland, Citibank, Hong Kong Shanghai Banking Corporation, Morgan Stanley Corporation, BNP Paribas, Merrill Lynch, Deutsche Bank, Lehman Brothers, Credit Suisse First Boston, and other internationally renowned investment banks. Besides, the Bureau invited Union Bank of Switzerland and Morgan Stanley Corporation respectively to give lectures and training on risk management at the relevant project-related work units. After making investigation and experimentation while getting the training, we, according to the core idea of the Notice Concerning the Relevant Issues about the Foreign-debt Risk Management (Finance/Office/Monetary [2005] No. 25), formulated the Notice of Chongqing Municipal Bureau of Finance Concerning the Relevant Issues about Enhancing the Municipal Government Foreign Debt Risk Management (Yu/Finance/Foreign [2005] No. 44). We, along with the project owners, made thorough demonstration and contrast of multiple plans as well as collective research and decision making. After their efforts, we finally chose the foreign exchange swap plan provided by the Union Bank of Switzerland for the Chongqing light rail project of 16.5 billion Japanese yen, and signed the first currency swap agreement on July 29, 2005, through the Agricultural Bank of China. After that, we chose the foreign swap plan formulated by Morgan Stanley Corporation and Lehman Brothers for the Chongqing Expressway Development Corporation’s debt of about 36.9 billion Japanese yen, and signed the second currency swap agreement on November 16, 2005, through the Agricultural Bank of China and Bank of China. In 2006, the municipal government continued to push forward the work of currency swap with financial derivatives by choosing the value maintenance plan of Goldman Sachs to conduct currency swap for the CWWCG’s debt of 12 billion Japanese yen, and signed the third currency swap agreement on June 21, 2006, through the Minsheng Bank, the Agricultural Bank of China, and the Construction Bank of China. Additionally, the bureau chose the value maintenance plan provided by Merrill Lynch, and conducted currency swap for the debts with a total value of 8.6 billion Japanese yen of the “surplus return,” on-lend loans in Japanese yen, and the human resource development project. With the transaction being finalized, we are waiting for the right moment to hold a signing ceremony.

The fundamental principles of foreign-debt risk management of the municipal government

According to the core ideas of the Notice of the MOF Concerning the Relevant Issues about the Foreign-debt Risk Management (Finance/Office/Monetary [2005] No. 25) and the Notice of the Chongqing Municipal Bureau of Finance Concerning the Relevant Issues about the Chongqing Government Foreign-debt Risk Management (Yu/Finance/Foreign [2005] No. 44), we, according to the reality of the municipality, have been adhering to the following six principles:

1. Only work with the internationally renowned major investment banks;
2. Be proactive and prudential, and not take speculation and profit making as the

work objectives;

3. Make contrast between multiple organizations and plans, and democratic decision making;
4. Adopt the step-by-step approach in implementation;
5. Provide fiscal guidance and let the project owners get in charge of the implementation;
6. Designate specific people to be in charge of certain matters and conduct dynamic management.

Main features of the currency swap plan

The adopted swap plans each have their own features. The main features are as follows:

1. *Protection range.* Each project defines the upper limit and the lower limit of the exchange protection, according to the financial situation of the project-related work units and the specific requirements and in reference to the project's cost exchange rate and the market exchange rate when the transaction is made. The lower limit is generally fixed at 65 Japanese yen per US dollar. The upper limit is generally fixed at above 120 Japanese yen per US dollar (116 Japanese yen per US dollar for one of the projects). Some projects even carry out appropriate protection for the exchange rate risk of below the lower limit.
2. *The swap interest is not higher than the interest rate of the original loan currency.* This feature is based on the consideration of the corporate cash flow, in order to prevent the situation that negative cash flow emerges for the enterprises once the transaction begins. The swap interest rates on all the adopted plans are all a little lower than the cost of the interest rate of the original loan currency.
3. *The punitive article is linked to the interest rate and/or long-term and short-term interest rate spreads.* One of the finished transaction plans is linked only to the interest rate. And six are linked only to long-term and short-term interest rate spreads. Two are linked to both interest rate and long-term and short-term interest rate spreads at the same time. We made such choice in order to indicate the feature of the different plans and split the risk.

The delivery of the swap transaction

Up to now, the light rail and the Chongqing Expressway swap transaction have both completed the delivery of two phases. And the CWWCG swap transaction completed the delivery of phase 1. Only the Chang-Liang Highway project of Chongqing Expressway made a loss of 3,500 RMB because the market exchange rate is a little higher than 116 Japanese yen per US dollar, which is the fixed upper limit of the Japanese yen exchange rate. This situation has affected the amount of the principal for interest calculation. The other transactions were all profit making at a total profit of RMB 3.07 million.

Work plans for the next step

- Move ahead further with the prevention and avoidance of the Japanese yen debt risk of other projects, and explore step-by-step the value maintenance plan of interest rate swap and exchange rate swap of other currencies.
- Conduct dynamic management of the interest rate and exchange rate risk of government foreign debt projects, and work with investment banks to carry out relevant risk management exchanges and cooperation, and conduct dynamic management for the project which has already adopted currency swap.
- Improve the regulating agencies of the government foreign debts, and develop a team to handle the foreign currency finance, which is good at both finances and management, as well as enhance the capacity building of relevant agencies.

Chongqing Municipal Bureau of Finance
October 24, 2006

ANNEX 6. WORKSHOP ON SUSTAINABLE FINANCING OF UDICS IN CHONGQING

Chongqing InterContinental Hotel
March 29, 2007, 9:00 A.M. –7: 30 P.M.

Time	Topic	Speaker
0845–0900	Registration	
0900–1030 Opening Session (Chair : Ms. Chen Yuanchun, Vice Director General, CFB)		
0900–0930	Opening Remarks from the Chongqing Municipal Government	Mr. Cui Jian, Vice Secretary General, Chongqing Municipal Government
0930–1000	GOC's perspectives on the Bank's AAA in China	Mr. Yang Yingming, Director, International Department, MOF
1000–1045	World Bank International Experience Involving the Use of Financial Intermediary to Finance Infrastructure	Mr. Kamran Khan, Infrastructure Finance Advisor, East Asia & Pacific Region, the WB
1030–1045 Coffee Break		
1045–1245: (Chair: Ms. Chen Yuanchun, Vice Director General, Chongqing Municipal Finance Bureau)		
1045–1115	S&P's Framework for Assessing Credit of Local Government-Related Entities	Mr. Chew Ping, Managing Director, Corporate and Government Ratings, S&P
1115–1145	Lehman Brothers Risk Management ---- Modern Enterprises Management Concept	Ms. Lin Xin, Managing Director, Lehman Brothers
1145–1245	Q&A	
1245–1400 Buffet Lunch		
1400–1730 (Chair: Mr. Kamran Khan, Infrastructure Finance advisor, East Asia & Pacific Region, the WB)		
1400–1415	Chongqing Finance Bureau	Ms. Chen Yuanchun, Vice Director, CFB
1415–1445	World Bank Background of the World Bank Infrastructure Finance Study in Chongqing	Mr. Kamran Khan, Infrastructure Finance Advisor, East Asia & Pacific Region, the WB
1600–1615 Coffee Break		
1615–1730	World Bank—CFB Team to solicit ideas and discuss key issues with participants	All participants
1745–1800	Closing remarks from Chongqing Municipal Government	Ms. Chen Yuanchun, Deputy Director General, CFB
1800–1930	Dinner	All participants

ANNEX 7. UDIC REFORMS IN CHONGQING: INVESTMENT AND FINANCING MODE AND MECHANISM ADOPTED BY STATE-OWNED INVESTMENT GROUPS IN CHONGQING

Huang Qifan,
Executive Vice Mayor of Chongqing Municipal People's Government
(March 2006)

[Abstract]: In order to speed up the economic and social development of Chongqing, the CMG has helped establish and expand eight major construction-oriented IGs following marketing principles. At the same time, a basic framework called “five inputs, three equilibrium, and three nos” for Chongqing’s investment groups (IGs) is also set up aiming to regularize their operation and management. Within several years, the eight major IGs have witnessed rapid expansion and become a well-functioned platform for international capital to flow in Chongqing.

Key Words: Chongqing, Investment & Financing, Mechanism, Mode

Chongqing Municipality is a well-known historical and cultural city in China and has a civilization history of over 3000 years. Opened in 1895, it was the earliest trade port ever opened along the Yangtze River area. During World War II, Chongqing became the wartime capital of China and also headquarters of the Allied Forces in the Far East. It was the political, economic, and cultural center of China and Asia as well. In 1997, Chongqing achieved municipality status as a provincial-level entity and was administrated directly by the central government. Covering a total area of 82,400 square kilometers, the city consists of 40 districts and counties (cities) with a population of 31.54 million. The central part of Chongqing, where five million residents, is located at the confluence of the Yangtze River and Jialing River. Such a geographic location makes the city a world-known “city of mountains and rivers”. The implementation of “Go-West Strategy”^{xxi} started in 2000 by the central government, has provided Chongqing, the only municipality in West China, a unique opportunity to speed up its social and economic development. Currently, Chongqing is the largest metropolis, important industrial and commercial base, and education, science and technology, and cultural center in the upper reaches of the Yangtze River and the whole western part of China.

1. Comparative development advantages

Chongqing is an investment attraction with greatest potential among extra-large cities in Western part of China, with five advantages as follows:

- 1) It enjoys an advantageous geographic position. Chongqing, a linking point between west and east, is located at the core area on the upper reaches of the Yangtze River. It is also an important area for the implementation of “Go-West Strategy.”

- 2) It boasts a sound infrastructure base. Chongqing is the only transportation hub in Western China combining three transportation modes in place. Several pillar railways and expressways across the mainland link Chongqing with most of the cities inside the county, cargo ships with more than 3,000-ton capacity can smoothly go up the Yangtze River to Chongqing port, and Chongqing Jiangbei International Airport is also listed as one of the key national airports. Besides, Chongqing is one of the distribution centers of electricity network in western part of China, in addition with high production of coal and natural gas and guaranteed energy provision.
- 3) It has a strong industrial base. Chongqing is one of China's old industrial bases with pillar industries like automobile manufacturing, chemicals and pharmacy, building materials, food manufacturing, and tourism expanding rapidly. In addition, high-tech industries such as information technology, biological engineering, and environmental protection technology are also speeding up their development.
- 4) It has strong science, technology, and education backup. More than 1,000 scientific research institutions, 29 colleges and universities, and 600,000 research staff reside in Chongqing.
- 5) It has a huge potential market. In addition to its large population, the improvement of people's living standards and living condition, resettlement of town workers from the Three Gorges Reservoir area, large-scale infrastructure construction, and ecological environment protection and pollution control, together with upgrading of the old industrial base, will certainly produce great consumption and investment demand.

Seizing the historic opportunity of "Go-West Strategy" by the central government, Chongqing will follow its strategic plan of building "three centers, two hubs, and one base"^{xxii} to speed up its social and economic development and bring into full play its role as the strategic prop in the development of West China, the window to the outside world, and the radiator and a driving force for its surrounding areas.

2. Great achievements made in economic and social development during the nine years since Chongqing's status was upgraded

The Chinese central government's decision to upgrade the status of our city, build the Three Gorges Dam project, and develop the West region has been considered a significant historic opportunity for Chongqing's development. Having seized this great historical opportunity, the city is experiencing rapid, sustained, and healthy socioeconomic development and a quick expansion in its overall size of economy. During the past nine years since its status was upgraded to provincial-level municipalities, Chongqing has achieved an average annual GDP growth of ten percent. During the period of 2000 to 2005, Chongqing had registered an annual growth rate of 10.5 percent with a total GDP of RMB 306.9 billion. Chongqing's financial revenue has also increased rapidly from RMB 5.48 billion in 1997 to RMB 39.5 billion in 2005,

registered a growth rate of 6.2 times. In the past five years, particularly, Chongqing's financial revenue has kept growing at an annual rate of over 30 percent. While accomplishing a rapid growth in these two aspects, Chongqing has undergone the following five major changes in its economic structure:

- 1) The industrial structure has changed significantly. In 1996, the proportion of the agriculture accounted for as much as 24 percent of the municipal economy. After nine years development, however, this proportion has dropped by nine percentage points, whereas the weight of industry has gone up by seven percentage points. Currently, the secondary and tertiary industries account for 85 percent of our economy, which leads to a rationalized and optimized industrial structure.
- 2) The ownership structure has changed significantly. Being one of China's major traditional industrial bases, Chongqing had a ratio of 75:25 in the public sector to the non-public sectors after it has become to the provincial-level municipalities. By the end of 2005, however, this ratio became 49:51, with the state-owned part accounting for only one-third. The rapid growth of non-public economy plays an important role in the city's development.
- 3) The industrial structure has changed significantly. In 1996, the total industry output value registered RMB 105.6 billion, and the number has reached RMB 350.8 billion, which increased 2.3 times, by the end of 2005. The total high-tech products output value accounted for only about three percent of the total industrial output value in 1996 and it has increased 8.8 times, which accounted for 26.6 percent by 2005. Currently, the net capital of Chongqing's industry is approximately RMB 120 billion, yielding a return rate of around ten percent. The overall index of industrial efficiency is 138.5, which is 74.5 percentage points higher than the level in 1996.
- 4) The structure of financial assets has changed significantly. In 1997, the overall effective loan from financial institutions was RMB 91.4 billion, with a 36 percent of nonperforming loan rate. By the end of 2005, however, the loan has increased to RMB 377.9 billion, which is nearly three times than previous level, with the nonperforming loan rate dropping to below 8.5 percent. Thus, it makes Chongqing a city with relatively good financial atmosphere in the country and the best in the West region of China.
- 5) The rural-urban ratio has changed significantly. Chongqing's territory exhibits a two-element structure characterized by "a large urban part plus a large rural part." In 1996, Chongqing's urbanization rate was only 28 percent, however, it became to 45.2 percent by the end of 2005, which was even higher than the national average.

The profound changes in the above aspects mark the excellent structure and tendency in the socioeconomic development of Chongqing.

3. Investment constitutes an important driving force in the fast socioeconomic development of Chongqing

Strong investment activities in recent years have been the major driving force for spurring the rapid economic growth and five major changes in the economic structure in Chongqing. During the past nine years, annual growth rate of investments in fixed assets was 22.6 percent, and it has even gone up to 25.1 percent in the past five years. In 1996, the total investment in fixed assets was approximately RMB 32 billion, and it has reached RMB 200.6 billion in 2005, which increased by 6.3 times. According to the 11th Five-Year Plan, the total investment in fixed assets in Chongqing will be RMB 1.3 trillion, maintaining an average annual growth rate of over ten percent.

Chongqing not only features a huge volume of investment each year but also boasts regularized sources of funds. The annual RMB 200 billion investment volume comes mainly from five sources: first, the investment by the central and local governments, constituting about 12 percent; second, funds raised by domestic businesses, accounting for about 30 percent; third, funds provided by foreign businesses, accounting for about 14 percent; fourth, additional bank loans, accounting for about 42 percent; fifth, market financing from stocks and securities, accounting for about two percent. We consider the portion of capital market financing too small and the volume of direct market financing will be further enlarged.

The investments in Chongqing mainly go to the construction of infrastructure and development of the manufacturing and service industries each year. At present, 46 percent goes to infrastructure construction, 28 percent to manufacturing industry, and 26 percent to service industry. In the next five years, further adjustment will be made to a ratio of 4:3:3; i.e., 40 percent for infrastructure,^{xxiii} 30 percent for manufacturing industry, and 30 percent for tertiary industry such as real estate, culture, education, and health care. The eventual investment structure should be one oriented to industry and commerce, which meets various developing functions and market demands.

4. Setting up a market-oriented financing/investing platform and mechanism

In the planned economy era, the usual practice combined finance, investment, and construction into a single whole. Since opening up and the overall reform started, especially after the 1990s, China's socialist market economy system has been gradually formed. Chongqing has accelerated the reform of its investment and financing system and set up a platform according to the requirement of market economy and public finance, on which the government provides guidance to SOEs to participate in the market-oriented investment and financing, which initiates the participation of the whole society in financing and investment. In recent years, CMG has established and expanded eight major construction-oriented IGs; i.e., Chongqing Development Investment Corporation, Chongqing Expressway Development Corporation, Chongqing Energy Investment Group, Chongqing Real Estate Group, Chongqing Transportation and Tour Investment Company, Chongqing Urban Construction Investment Corporation, Chongqing Water Resources Investment Company, and Chongqing Water Works Controlling Group, as well as Yufu Assets Operating and Management Co., Ltd. These eight IGs together with Yufu Company are mainly dedicated to make investments in the

construction of infrastructure planned by the government. With the background of an urgent public demand, weak market signals, and inadequate market mechanism, the government-authorized investment makes the first move in the construction sector, which helps with initiating the involvement of social investments. When the market signal becomes stronger and market mechanism is established, the state-owned capital then gradually withdraws. This practice on the one hand ensures the construction of government-designated priority projects, on the other hand makes the state-owned capital play an effective role in terms of controlling, influencing, and leading the national economy development. At the same time, the eight giant IGs and the Yufu Company develop rapidly along the way.

1) The total size of assets of the eight IGs has increased dramatically:

At the end of September 2003, when CSASAC was founded, the total volume of assets owned by the IGs was only RMB 33.9 billion, accounting for 23.5 percent of the total municipal state-owned assets. At the end of 2005, however, the total assets of IGs amounted to RMB 150.2 billion, up by three times, and the portion it accounted in the municipal total increased to 40.7 percent.

2) The quality of assets owned by the IGs has improved considerably:

In 2003, these IGs registered an average asset-liability rate (ALR) of over 70 percent and some of them had an ALR of as much as 90 percent. At the end of 2005, Yufu Company's average ALR was 58.6 percent, down by nearly 15 percentage points. All other investment companies registered an ALR of below 50 percent, the lowest one was only 13.4 percent, except CEDC, whose ALR was 70 percent for the reason that many of the projects in which it had invested were still under construction.

3) The operating capability of the IGs has increased dramatically:

By the end of 2005, two out of the eight IGs, along with Yufu Company, have registered a total assets exceeding RMB 30 billion, while seven of them had accumulated a total volume of over RMB 10 billion each. In 2005, the eight IGs and Yufu Company raised fund for more than RMB 47 billion from financial institutions, securities, and bonds markets and invested RMB 28 billion in construction, accounting for 14 percent of the city's total investment in fixed assets and over 30 percent of the total investment in infrastructure and public facilities. They played an essential role in investment and financing in infrastructure and public facilities financing.

5. Three important measures to ensure the development and growth of the eight major IGs

The robust development and growth of the eight major IGs in Chongqing are attributed to three important measures: 1. "Five inputs," i.e., government inputs through funds of national debt, land reserve, stock assets, stipulated fees, and taxes levied; 2. "Three nos," i.e., no government guarantee for the IGs' financing business, no enterprise guarantee to each other among these groups themselves, and no funds are to be used other than their designated purposes in each of these groups; 3. "Three equilibriums," i.e., the IGs must ensure the equilibrium between assets and liabilities, cash flows, and investment and

financing. The “five inputs” are government policy measures for increasing the capital capacities and credibility of the IGs; the “three nos” serve as a “firewall” to prevent financial risks by separating administration from capital and enterprise operation; the “three equilibrium” is the rule to be closely observed by the IGs in order to ensure sustained and normal operation. The above-mentioned three measures constitute the basic framework for Chongqing’s IGs to regularize operation and ensure healthy development.

1. “Five inputs” to strengthen the overall capabilities of the IGs.

1) Input through fund of national debts: National debt investments are arranged by the central government each year. In the past few years, a total amount of RMB 20 billion raised in the form of national debt was allocated to hundreds of projects in Chongqing’s 40 districts and counties. Now, this amount has been collected and distributed to the pertinent IG for uniform management. The unified input of these funds has increased the capital volume of these IGs by over RMB 20 billion. Then when this extra amount is used to secure a bank loan at a ratio of 1:1 it generates an additional amount of RMB 20 billion. On the whole, the input of national debt fund in recent years has resulted in a total volume of assets of over RMB 40 billion for these IGs. During the 11th Five-Year Plan period, an annual national debt fund of RMB 4–5 billion and a total of RMB 20–25 billion are expected to be invested in Chongqing. Following the existing course of action, these inputs will be distributed to the respective IGs to form fresh additions to the capital fund.

2) Input of stipulated fees levied: A typical example of this is the input of tolls to the Urban Investment Company. The total amount of tolls levied last year was RMB 600 million, and this figure is expected to be RMB 700 billion this year and next year. The road maintenance fee levied thus goes to CEDC while, of the urban construction and maintenance fees, the part used for urban construction goes to the pertinent IG.

3) Input of land reserve: The municipal government allows some IGs to reserve land and use the revenue generated by the land reserve as the capital input. The CMG gives the CREG and CUCIC the power to act as a municipal-level land reserve center, which currently has reserved over 100,000 mus of land. In the meantime, it allows other IGs to get land in exchange of projects and use land as the reserve of fund to enable partial, single reservation and turnover of land. Currently, there are several hundred mus of land in single reserve and turnover.

4) Input of stock assets: In the past decades, the government constructed a great deal of tangible assets such as roads, bridges, water plants, garbage disposal facilities, etc. These tangible stock assets, once allocated to the pertinent IGs, become their fixed assets. In this way, the stock assets are actively utilized and the registered volume of assets of the IGs expands quickly. In the past few years, more than RMB 10 billion worth of stock assets has been allocated to the IGs.

5) Input by tax refunds: The government refunds construction and operation taxes, etc., levied from investments made in infrastructure and public facilities.

Approximately several hundred million RMB of taxes are refunded to the IGs each year, which become part of their assets.

2. The “three “nos” measure constitutes a firewall.
 - 1) The government finance provides no financing guarantee to the IGs. The measure is to prevent municipal-level financial liability risks and protect the bank and other financing institutions. While the government and its agencies support the development of these IGs they must also draw a clear boundary line between the two. The separation of government administration from the enterprise’s operation must be strictly observed. Otherwise, the government-enterprise boundary line would then be blurred, thus reducing the credibility of the government and possibly resulting in bad bank accounts and mounting pressure on the government finance. As a matter of fact, the purpose of government help is really to solve enterprise’s problems by strengthening its capital capability and uplifting its level of credibility, and let the banks award credits based on market rules and crediting principles.
 - 2) IGs are not allowed to provide financial guarantee to each other. Every IG has a certain degree of credibility, but if they provide guarantee for each other, then the bankruptcy of one group would affect others and result in a widespread calamity. Conversely, if they do not mutually guarantee, the collapse of one would not affect others and the problem would be easier to solve.
 - 3) Specially designated funds are not allowed to be used other than for their purposes. Every IG has its own special-purpose funds, which are actually owned by government and will only be provided to the enterprise for special purposes. Therefore, these funds must be used for their designated purposes only and no excuses are allowed.
3. The “three equilibriums” ensure the continuous healthy development of IGs.
 - 1) Equilibrium between assets and liabilities: The IG should keep the ALR at about 1:1, which means an ALR at about 50 percent. This is one of the basic principles that to be followed in the IG development. However, a lower ALR is not always a good thing. It is not necessary for a group to keep the ALR at 40 percent, 30 percent, or even lower. On the other hand, it is, of course, not good to let the ALR go over 80 percent, as this may lead to the risk of collapse. For instance, the eight IGs in Chongqing have secured a total amount of bank credits of RMB 260 billion, but the actual amount of bank loans is about RMB 80 billion, which accounts for only approximately one third of the credits awarded. In the future, as the size of capital increases gradually in the process of development, the amount of liabilities will increase accordingly to keep the net ALR always at 1:1, thus achieving a sustained healthy development.
 - 2) Equilibrium of cash flows: The equilibrium of cash flows is another essential principle that needs to be followed by IGs and enterprises in order to operate and develop properly. The IGs should adjust the demand and supply of cash to achieve equilibrium between them and a proper turnover of cash flows.

3) Equilibrium between input and output: Although IGs serve as an important leverage for the government to control and adjust the layout and structure of construction and development; to take the government objectives as their own; and to accomplish the task assigned by the government. They are not supposed to meet all specific requirements of the government unconditionally. Instead, they should stick to economic law and market rules. Before accepting the construction investment task assigned by government, they should take into consideration the balance between their capital capacity and financing capability. When the government assigns a construction investment task, both the government agency and the IG should make rational analysis and achieve the equilibrium between the input and output or the source of input capital. When it is impossible to achieve equilibrium, plans should be made to achieve it in the future. If the government fails to reach the input-output equilibrium when assigning a task to the IG and thus cause financing difficulties or credibility crisis to IG, the group may and should clearly state its situation and even refuse to accept the task.

6. The government is by no means to set up and expand IGs for monopoly purposes

In the western part of China, the infrastructure, public facilities, and social causes are relatively underdeveloped. There has been a big demand for a fast pace of development in these fields in order to ensure fast socioeconomic development in the West region and quick improvement of working and living conditions for the people live there. However, as these fields involve a large size of investment and take a long time to repay with low or even no profit return in the near future, private and foreign capital is reluctant to get involved. Therefore, when the market signal is weak and the market mechanism incomplete, the CMG takes an active role in setting up a number of large state-owned IGs and allows them to invest in these fields. This does not necessarily mean that these state-owned IGs would monopolize these fields. Rather, they will gradually withdraw when market signals become strong enough to attract social attention, no matter if projects are under construction or have been completed and put into operation. By then, the state-owned capital will be switched to new fields necessary for the national economy and people's livelihood. For example, in the past two years, CEDC has handed over the airport expressway and Chengdu-Chongqing Expressway; the CWWCG has founded the Sino-France Water Service Investment Company with the French Suez Group. A total of 60 percent of the fixed assets of CWWCG were purchased with cash and stock held by the foreign counterpart, which broke the limit set by the government that the stock held by foreign investor(s) in a joint venture engaged in water service shall not exceed 50 percent.

7. Chongqing's state-owned IGs serve as a good platform and partner for foreign capital in Chongqing

Practice has shown that the financing and investment mode adopted by Chongqing's state-owned IGs is the best model to facilitate socioeconomic development in the West region of China at the present stage and the best platform and partner for foreign capital to seek expansion in Chongqing. Currently, Chongqing's state-owned IGs have a clear property right, well-developed management system, perfect corporate credibility, and

strong capital capability. They are currently in good development progress with positive prospects in the future. Their operation mode and the fast growth have caught a high degree of attention from the central government and enthusiastic response from other parts of China.

ANNEX 8. STATE COUNCIL RESOLUTION ON DEBT EQUITY RATIO IN INFRASTRUCTURE PROJECTS

Governments of Various Provinces, Autonomous Regions and Municipalities directly under the Central Government, Ministries and Commissions and linear subsidiary organs of the State Council,

In order to deepen investment system reform, set up investment risk control mechanism, effectively control investment scale, improve investment benefits and promote the sustained, rapid and healthy development of the national economy, the State Council decides to implement capital fund system in fixed assets investment project (hereinafter referred to as “investment projects”) on a trial basis. The relevant issues are hereby notified as follows:

1. From 1996, the capital fund system shall be implemented on a trial basis for various operating investment projects, including capital construction, technological upgrading, real estate development and collective investment projects of state-owned units, and the capital must be made available as a prerequisite for investment projects. The provisions of this Circular shall be referred to for the operating investment projects of individuals and private enterprises.

The capital fund system shall not be applied to public welfare investment projects. Foreign-funded projects (including exclusively foreign-funded projects, Sino-foreign joint-venture projects and Sino-foreign cooperative projects) shall follow the relevant existing laws and regulations.

2. The total investment of the investment projects must include a certain proportion of capital fund apart from the debt fund raised from banks or capital market by the legal person of the project (for those expansion and technological upgrading projects on the basis of an existing enterprise, the legal person of such enterprise shall be the legal person of the project). The capital fund of an investment project refers to the amount of contribution by investors in the total investment of such project; such amount is a non-debt fund to such project and the legal person of the project does not assume any interest or debt of such sum. The investors may be entitled to the owner’s equity according to the proportion of their contribution or transfer their contribution but shall not withdraw such contribution.

The total investment as the basis for calculating capital fund in this Circular refers to the sum of fixed assets investment and initial working capital of investment projects, and specific checking and ratification shall be based on approved dynamic budget.

3. The capital fund of investment projects may be contributed in money or in appraised kind, industrial property rights, non-patented technology or land use right. The kind, industrial property rights, non-patented technology or land use right used as capital fund must be appraised by qualified assets appraisal organizations pursuant to laws and

regulations and shall not be over-valued or under-valued. The proportion of contribution with appraised industrial property rights and non-patented technology shall not exceed 20 percent of total capital fund of the investment project, unless specially stipulated otherwise by the state on high- and new-tech results. The sources of capital fund contributed in money by investors may include:

- 1) The budgetary fiscal fund of the governments at various levels, various special-purpose construction fund approved by the state, loan changed from appropriated fund, principal and interest recovered from operating capital construction fund, income from wholesale lease of land, income from property rights transfer, various fees collected by local governments according to state provisions and other non-budgetary funds.
- 2) Investment organizations authorized by the state and owner's equity (capital fund, capital reserve fund, surplus reserve fund and undistributed profit, revenues from share listing, etc.) of legal persons of enterprises, enterprise depreciation fund and fund raised by investors from the capital market according to state stipulations.
- 3) Fund legitimately owned by individuals.
- 4) Other fund, which may be used as capital fund of investment projects according to state stipulations.

4. The proportion of capital fund in total investment of an investment project shall be defined on the basis of such factors as the economic benefit of different industries and projects, specifically.

For traffic, transport and coal projects, the proportion of capital fund shall be 35 percent or more; for iron & steel, post & telecommunication and fertilizer projects, the proportion of capital fund shall be 25 percent or more; for projects in power, electromechanical, construction material, chemical, petroleum processing, nonferrous metal, light industry, textile, commerce, trade, and other industrials, the proportion of capital fund shall be 20 percent or more.

The specific proportion of capital fund in an investment project shall be checked and ratified according to the economic benefit of the investment project and the bank's lending intent and assessment opinions by the project approving authority in examining and approving the feasibility study report. Upon the approval of the State Council, the proportion of capital fund may be lowered to a certain extent for some special key national construction projects proportion of state investment to a proper extent in the capital fund of an investment project, increasing the proportion of policy-based loan in the credit fund and properly lengthening the repayment term of policy-based loan.

5. For some infrastructure and basic industry investment projects with stable return on investment and reliable revenue as well as some competitive investment projects with good economic benefits, the capital fund may be raised, upon approval by the State

Council and on a trial basis, by issuing convertible bonds or establishing shareholding companies to issue shares.

6. In order to support the economic development in the under-developed areas, the state will enhance the financing capacity of the investment projects in such areas mainly by taking such measures as increasing the capital investments.

7. The capital fund of an investment project shall be subscribed on a one-off basis and be made available year by year according to the approved construction progress.

8. Regarding investment projects with trial implementation of capital fund system, detailed accounts shall be given in the feasibility study report on the fund raising information, including contributor, method of contribution, source and amount of capital fund, progress of capital subscription, etc. The feasibility study report shall be submitted together with documents on investors' commitment to contribution; if contribution is made in kind, industrial property right, non-patented technology and land use right, and relevant materials such as assets appraisal certificate must be provided.

Static control and dynamic management shall be conducted on the budgeting of investment projects. Where the actual dynamic budget exceeds the approved original dynamic budget, the capital fund of such projects shall be adjusted accordingly according to the proportion as provided in this Circular and based on the adjusted and approved budget, and the capital contribution to be added by the different investors shall be defined according to relevant state regulations. Where the actual dynamic budget exceeds the approved original dynamic budget by ten percent or more, the budgetary adjustment must be submitted to the original budget approving authority for approval.

9. Regarding an investment project mainly utilizing loans from commercial banks, the investors shall deposit their capital contribution into their main lending bank on the basis of the amount of capital fund to be made available on a yearly basis; for an investment project mainly utilizing the loan from CDB, the capital fund shall be deposited into the bank designated by CDB. The capital fund of an investment project shall be used for project construction only and shall not be used for other purposes nor be withdrawn. The banks concerned shall, after making the lending commitment, extend loan on a yearly basis according to the construction progress and capital fund availability of such project.

The relevant authorities shall monitor the availability and use of the capital fund of investment projects. The investment administration authority shall grant investment permit, and the financial institutions shall not extend loan, to those investment projects the capital fund of which has not been made available according to the required progress and amount. If the capital fund of an investment project, which has already been deposited in the fund, is misappropriated for other purposes, the banks shall stop extending loan to such project before the investors correct such misappropriation pursuant to regulations.

If the source of capital fund does not comply with relevant regulations or in case of fraud and drawback of capital fund, the persons liable shall be punished by administrative or economic measures based on the circumstances, and the projects may be stopped or postponed if necessary.

10. Where the project proposal of an investment project has been approved but its feasibility study report has not been approved before promulgation of this Circular, its feasibility study report shall be prepared or materials regarding capital fund shall be added pursuant to this Circular; where the feasibility study report has been approved but the project commencement report has not been approved, the capital fund shall be made available and materials on the availability of the capital fund shall be added pursuant to this Circular and the project commencement report shall re-prepared; no investment project shall be commenced if their capital fund is not made available.

11. The State Planning Commission shall be responsible for interpreting this Circular (the State Economic and Trade Commission shall be responsible for interpreting issues involving capital fund of technological upgrading projects). The State Planning Commission and the State Economic and Trade Commission shall check and supervise the implementation of the capital fund system during the trial implementation of such system and shall summarize the experiences so as to further revise and improve the system and formally implement the system after trial implementation for a period.

Issued by: the State Council, date: August 23, 1996

ANNEX 9. CEDC FINANCING PLAN

Table A9. 1: CEDC financing plan (Capital/Equity)

(Unit: 10,000 RMB)

Capital funds required (minimum 35% of total financing)	MOC contribution (financed by vehicle purchase fee)	CMG contribution (financed with CMG fee/charges)	CDB soft loans on-lent to CEDC	Investment from SOEs and/or private sector	CEDC capital (sale of operating rights)	Capital fund gap
3,004,320	1,304,600	319,829	750,000	255,199	229,000	165,691
% of required capital	43.4%	10.0%	25.0%	8.5%	7.6%	5.5%

Source: CEDC

Table A9. 2: Detailed Financing Plan (Capital/Equity)

Projects	Mileage (km)	Total Investment	Capital Amount Required	Capital Fund Arrangements							
				Transfer by MOC	Municipal Fiscal Funding	COB Soft Loans	Co-Financed	Enterprise Self-Funding	Yufu Transfer Income	Yuqian Transfer Income	Capital Fund Gap
Wankai Road	29.30	197,826	69,239		20,700	15,000	1,800	5,000		26,800	-61
Congqing-Yulin	111.84	474,663	166,132	75,700	0		132,900			0	-41,868
Hechuan-Wusheng	33.75	152,293	53,303	17,500	15,050	10,000		6,000	5,000		-247
Yusha Road: Shuijiang-jieshi	85.28	397,097	138,984	79,800	19,134	40,000					0
Yusha Road: Shuijiang-Wurong	54.55	502,344	175,810	95,300	4,000	79,000					-2,490
Tusha Road: Wulong-Penshui	64.50	605,042	211,765	110,100	21,665	80,000					0
Yusha Road: Penshui-Qianjiang	70.57	565,880	198,058	89,800	13,258	90,000					0
Yusha Road: Dahang-Qianjiang	23.32	161,721	56,602	25,400	6,202	25,000					0
Yusha Road: Youyang-Dahuang	37.23	253,952	88,883	42,100	8,783	38,000					0
Yusha Road: Shangguanjiao-Youyang	32.51	238,905	83,617	45,400	8,217	22,000			0	8,000	0
Yusha Road: Hongan-Shuangguanjiao	44.88	317,255	111,039	44,700	9,000				13,000	30,000	14,339
Zhongxian-Shizhu	80.33	637,874	223,256	104,200	17,000	59,000			15,000	15,000	13,056
Diangjiang-Zhongxian	75.11	430,581	150,703	73,900	0		120,500			0	-43,696
Wanzhou-Yunyang	78.22	624,923	218,723	75,700	11,023	132,000					0
Yunyang-Fengjie	71.36	576,694	201,843	88,200	13,000	50,000			20,000		25,643
Fengjie-Wushan	59.13	510,803	178,781	83,400	15,000				38,000	13,200	24,181
Out Ring: Western Section	51.06	235,139	82,299	37,500	15,799				29,000		0
Out Ring: Southern Section	50.36	357,253	125,039	54,100	22,000				0		48,939
Out Ring: Eastern Section	36.78	241,900	84,665	33,800	17,865	33,000					0
Out Ring: Northern Section	49.29	483,951	169,383	74,900	27,483	67,000					0
Chongqing-luzhou	47.90	195,600	68,460	24,000	9,600	10,000			0	0	24,860
Fengjie-Wuxi	49.45	422,106	147,737	29,700	15,000				0		103,037
Added Fund from Land Requisition											0
Constructing Project Transfer Income										0	0
Total	1237	8,583,772	3,004,321	1,304,600	299,829	750,000	255,200	11,000	120,000	98,000	165,693

Source: CEDC

Financing Plan (Debt): The table below presents the CEDC’s financial plan to finance the 20 new expressways by 2010 as required under the Chongqing 11th Five-Year Plan. This financing plan has been confirmed and has received commitments for the bank loans. Although CMG no longer provides guarantees to the UDICs, however, it has sent a “comfort letter” to CDB for assisting CEDC to obtain a RMB 30 billion loan.

Table A9. 3: Debt fund arrangement of constructing projects (Unit: 10,000 RMB)

Total required debt fund	CDB loans	Industrial Commercial Bank	Construction Bank	Agricultural Bank	CTTIC	Minsheng Bank
5,670,451	3,000,000	950,000	200,000	360,000	65,000	40,000
% of required debt funds	69.5%	16.8%	3.5%	6.3%	1.1%	0.7%

Source: CEDC, from the year 2006

Table A9. 4: Detailed financing plan (Debt)

Project	Construction Scale (km)	Construction Period	Total Investment	Bank Financing Amount Required	Bank Loan Arrangements								Overdrawn Bank Loans or Gap	
					Total	CDB	Commerical Bank	Construction Bank	Agricultural Bank	China Trust Bank	Minshen Bank	CDB New Added Loans	Overdrawn Bank Loans	Bank Loan Gap
						Signed Agreement	Signed Agreement	Signed Agreement	Signed Agreement	Signed Agreement	Signed Agreement			
Wankai Road	29.30	2002.12-2006.12	197,826	128,587	125,000	75,000	50,000							3,587
Chongqing-Yulin	111.84	2003.12-2007.12	474,663	308,531	250,000	250,000								58,531
Hechuan-Wusheng	33.75	2003.1.29-2005.06.30	152,293	98,990	120,000	50,000	30,000				40,000		21,010	
Yusha Road:Shuijiang-Jieshi	85.28	2003.12-2007.12	397,097	258,113	460,000	200,000	150,000	50,000	60,000				201,887	
Yusha Road: Shuijiang-Wurong	54.55	2004.12-2008.12	502,314	326,504	332,000	240,000					92,000		5,496	
Yusha Road: Wurong-Penshui	64.50	2004.12-2008.12	605,042	393,277	400,000	290,000					110,000		6,723	
Yusha Road: Penshui-Qianjiang	70.57	2005-2009	565,880	367,822	373,000	270,000					103,000		5,178	
Yusha: Dahang-Qianjiang	23.32	2005-2010	161,721	105,118	108,000	78,000					30,000		2,882	
Yusha: Youyang-Dahang	37.23	2005-2010	253,952	165,069	167,000	122,000					45,000		1,931	
Yusha: Shanguangqiao-Youyang	32.51	2005-2010	238,905	155,288	157,000	120,000					37,000		1,712	
Yusha: Hongan-Shanguangqiao	44.88	2005-2010	317,255	206,216	210,000	180,000					30,000		3,784	
Zhongxian-Shizhu	80.33	2004.12-2009.06	637,874	414,618	414,580	180,000	150,000	70,000				14,580	-38	
Diangjiang-Zhongxian	75.11	2004.09-2008.09	430,581	279,878	270,000	120,000	150,000							9,878
Wanzhou-Yunyang	78.22	2004.09-2008.09	624,923	406,200	410,000	160,000	150,000	80,000	20,000				3,800	
Yunyang-Fengjie	71.36	2005-2009	576,694	374,851	380,000	150,000			230,000				5,149	
Fengjie-Wushan	59.13	2005-2009	510,803	332,022	340,000	140,000			50,000			150,000	7,978	
Out Ring: Western Section	51.06	2004.12-2009.12	235,139	152,840	200,000	80,000	120,000						47,160	
Out Ring: Southern Section	50.36	2004.12-2009.12	357,253	232,214	233,000	60,000	150,000					23,000	786	
Out Ring: Eastern Section	36.78	2005-2010	241,900	157,235	158,000	60,000						98,000	765	
Out Ring: Northern Section	49.29	2005-2010	483,951	314,568	316,000	110,000						206,000	1,432	
Chongqing-Luzhou	47.90	2005-2010	195,600	127,140	130,000	65,000				65,000		0	2,860	
Fengjie-Wuxi	49.45		422,106	274,369	0									274,369
Added Fund from Land Requisition			140,000	91,000	0									91,000
Total	1237		8,723,770	5,670,451	5,553,580	3,000,000	950,000	200,000	360,000	65,000	40,000	938,580	320,494	437,364

Source: CEDC

ANNEX 10. SIMPLE VERSION OF A RISK REGISTER TEMPLATE

Table A10. 1: Simple version of a risk register template

Ref.	Risk	Implication	Significance	Likelihood	Risk score (gross)	Salience	Strategy	Mitigating actions (a) actions taken to date (b) actions intended to be taken (c) controls that are in place	By whom?	By when?	Residual score (Net)	Risk state	Contingency plan
XX01	Failure to deliver ...	Inability to achieve...	5	4	20	3	Manage (i.e., mitigate the significance)	(b) Set limit of xxx, appoint project team to and take action to ... (c) monthly monitoring	ABC	xx/xx/0x	4x4 = 16	Rising	Review priority in Strategy Plan and substitute with...
XX02	Failure to take the opportunity to ...	Slower progress on ...and increased pressure from competitors	4	4	16	3	Eliminate (i.e., remove the likelihood)	(b)Secure budget to..., appoint coordinator, set timetable.	DEF	xx/xx/0x	3x2 = 6	Decling	None
XX 05 etc.	Building refurbishment delayed	Teaching space not available for start of semester, reputational hit	4	3	12	2	Eliminate	(b)Prioritize project, delay aspects of work till next window of opportunity, review time-tabled commitments.	KLM	xx/xx	3x2 = 6	Decling	Schedule teaching in another location.

FOOTNOTES

ⁱ “Operational projects” are financially viable projects that can generate cash flow to cover their cost.

ⁱⁱ Local governments in China include provincial, municipal, county, and township governments.

ⁱⁱⁱ The Law on Budget, and various administrative guidance and rules governing local government operations.

^{iv} The agenda for the conference is provided in Annex VI.

^v NAUCIC statement made at the workshop organized by NDRC Investment Research Institute in Beijing, November 17–18, 2006.

^{vi} The term “Operational Project” refers to financially feasible or viable projects.

^{vii} Note that RMB 74.2 billion includes only municipal infrastructure.

^{viii} Hong, Lijian, “Chongqing: Opportunities and Risks,” *The China Quarterly* 2004, p. 451.

^{ix} Executive Vice Mayor Huang Qifan was the key architect of Shanghai’s current UDIC structure.

^x Annex VIII—State Council Prescript on Debt Equity Ratio in Infrastructure Projects

^{xi} Discussions with CMG leaders and with the eight UDICs during a workshop held in Chongqing on March 29, 2007. The agenda for the workshop is included in Annex VI.

^{xii} Investment invitation refers to solicitation of investment interest in completed toll roads. This mostly involves other SOEs, and, to a lesser extent, private-sector companies interested in becoming joint venture partners with the CEDC in operating the toll roads.

^{xiii} The actual scores have been shared with CMG leadership on a confidential basis.

^{xiv} “Operational Projects” are financially viable projects that can generate cash flow to cover their cost.

^{xv} “Investing” implies investment operations, and “financing” refers to authorization to borrow funds.

^{xvi} There are three layers of budget: central government, provincial government and municipal government

^{xvii} Note that 74.2 billion RMB includes only municipal infrastructure.

^{xviii} The SAASC plays the same role in the supervision of all SOEs in Chongqing.

^{xix} This is commonly referred to in Chongqing as the “no grandson” rule.

^{xx} Chongqing Municipal Regulation No.128, 2004

^{xxi} West China area includes 12 municipalities and provinces such as Chongqing, Sichuan, Yunan, Qinghai, Inner Mongolia, and Guangxi. It covers 6.85 million km², accounting for 71.4 percent of the whole country, and its population is 367 million. Because of some natural, historical, and social reasons, its development is comparatively backward and the majority of people living in this area.

^{xxii} The three centers are the commercial, financial, and scientific, educational, and information centers. The two hubs are the transportation and communication hubs; one base refers to modern industrial base funded on high-tech industry.

^{xxiii} Infrastructure here refers to expressways, railroads, rural irrigation works, urban sewage treatment, garbage disposal facilities, etc.