



中国财政科学研究院
Chinese Academy of Fiscal Sciences

RISK MANAGEMENT OF PUBLIC INFRASTRUCTURE FINANCING FOR SUSTAINABLE DEVELOPMENT IN CHINA

Discussion Paper

Research Center for finance
Chinese Academy of Fiscal Sciences

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Presentation Outline

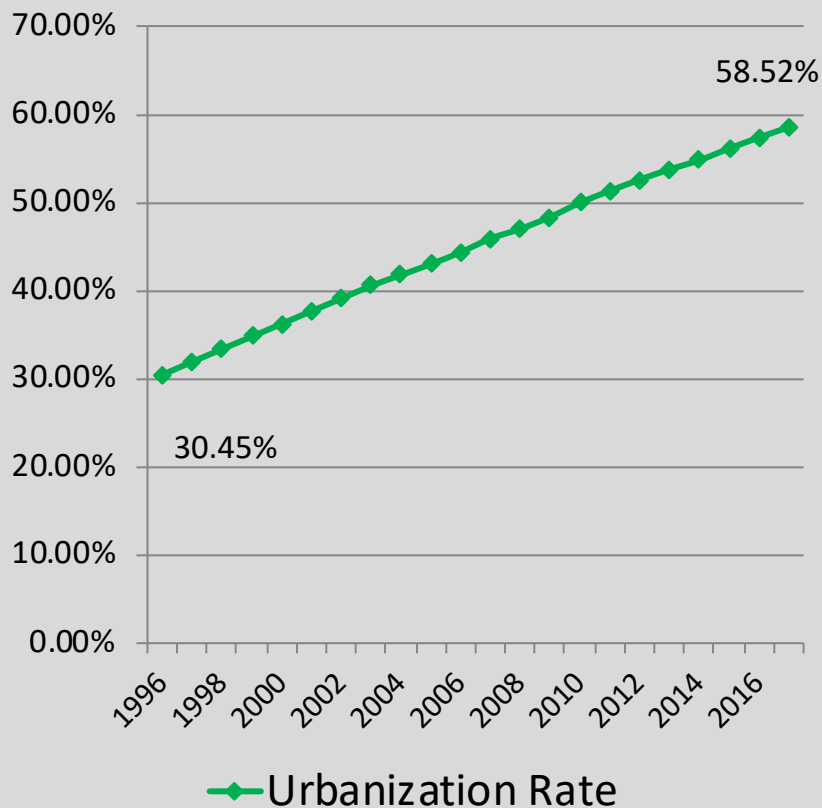
- I . Introduction and Background
- II . The Evolution of Public Infrastructure Financing and Its Risk Management in China
- III . Conclusion : Sharing China's Experience on Public Infrastructure Financing and Its Risk Management

Introduction and Background

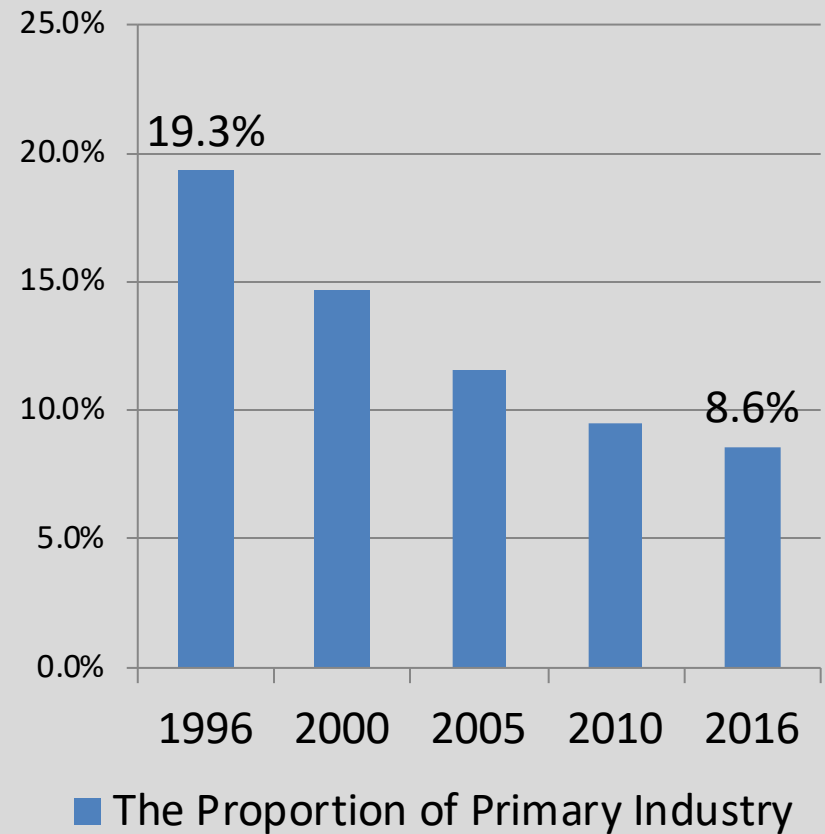
- Since the mid-1990s, driven by acceleration of industrialization and urbanization, countercyclical monetary and fiscal policy, public infrastructure investment and financing rose rapidly.
- However, as the market-oriented reforms deepened further and central government constantly decentralize its responsibility for delivery of public services and its power to invest public infrastructure, the financing needs of local government rose significantly due to the low tax capacity and imperfect intergovernmental transfer system.
- Before 2015, it was illegal and prohibited by central government for local government to issue debts without permission from the state council.
- As a result, local government circumvented the rules to finance infrastructure by setting up local government financing vehicles(hereafter LGFVs) to borrow from banks and capital market. Consequently, the size of local government explicit debts and implicit liabilities increased significantly, which greatly led to the buildup of systemic fiscal and financial risk and increased the possibility of economic crisis.

Introduction and Background

Urbanization Rate



The Proportion of Primary Industry



Introduction and Background

- By the end of 2016, the total length of
expressway network reached 131 000 km
highway network reached 4696300 km
railway network reached 124000 km
high-speed railway network in operation reached 22000 km
urban rail transit network reached 3800 km
- By the end of 2016, the total installed electric power capacity of PRC was 17.8 billion kilowatts
- In 2016, without considering PPP or other forms of investment in public infrastructure, the public investment by the state budget has 3.6 trillion RMB.

Introduction and Background

- During the past twenty years, the massive investment and construction in infrastructure are very important driving forces of economic growth and social development of China. However, under the tremendous pressure of public investments and strict regulator requirement, many complex and hidden approaches to off-budget borrowing were adopted by local government to avoid regulatory requirement. In order to prevent the systemic fiscal and financial risk arising from the irregular local government financing, central government acted to restrict their actions of access to financial institutions and curb the constantly rising debts.
- The dynamically interactive process formed the evolutionary history of China's public infrastructure financing.

The Evolution of Public Infrastructure Financing and Its Risk Management in China

- Since 1978, according to different financing modes, the evolution of public infrastructure financing can be divided into three major stages.
- Stage I : 1978 \sim 1993, Central Government-dominating Model
- Stage II : 1994 \sim 2014, Land Finance Model
- Stage III : 2015 \sim , Regulated Mixing Model: Bond + PPP

The Evolution of Public Infrastructure Financing and Its Risk Management in China

- **Stage I : 1978 ~ 1993, Central Government-dominating Model**
- **Background, Reform and Measures:**
 - ◆ The central government dominated public investment and financing, which had some typical characteristics of planned economy.
 - ◆ But market-oriented reform has begun, the central government started to decentralize its authority of infrastructure investment to sub-national government and clarified the fiscal responsibility of central and local governments for infrastructure investment.
 - ◆ To strengthen financial constraint on the fund user and improve the efficiency of government investment, central government decided to transform administrative allocation mechanism of infrastructure investment spending into bank loan mechanism in 1979.
 - ◆ Governmental investment fund was set up and treasury bonds was reissued in order to increase government revenue and expenditure on infrastructure investment.

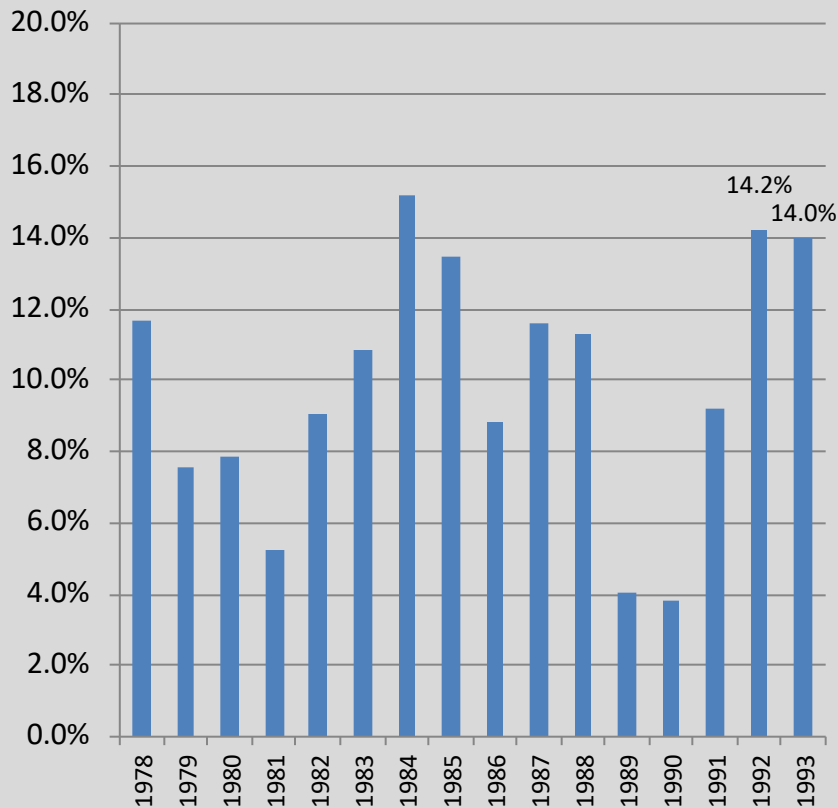
The Evolution of Public Infrastructure Financing and Its Risk Management in China

- **Stage I : 1978 ~ 1993, Central Government-dominating Model**
- **Problems and Risks:**
 - ◆ Off-budget funds were booming, fiscal discipline was lax, redundant building was common, the use of funds was inefficient.
 - ◆ Government borrowings from bank rose rapidly, non-performing loans also grew significantly.
 - ◆ The central bank purchased treasury bonds to finance fiscal deficit directly, inflation surged out of control.
 - ◆ The risk of economic overheating and inflation substantially increased.

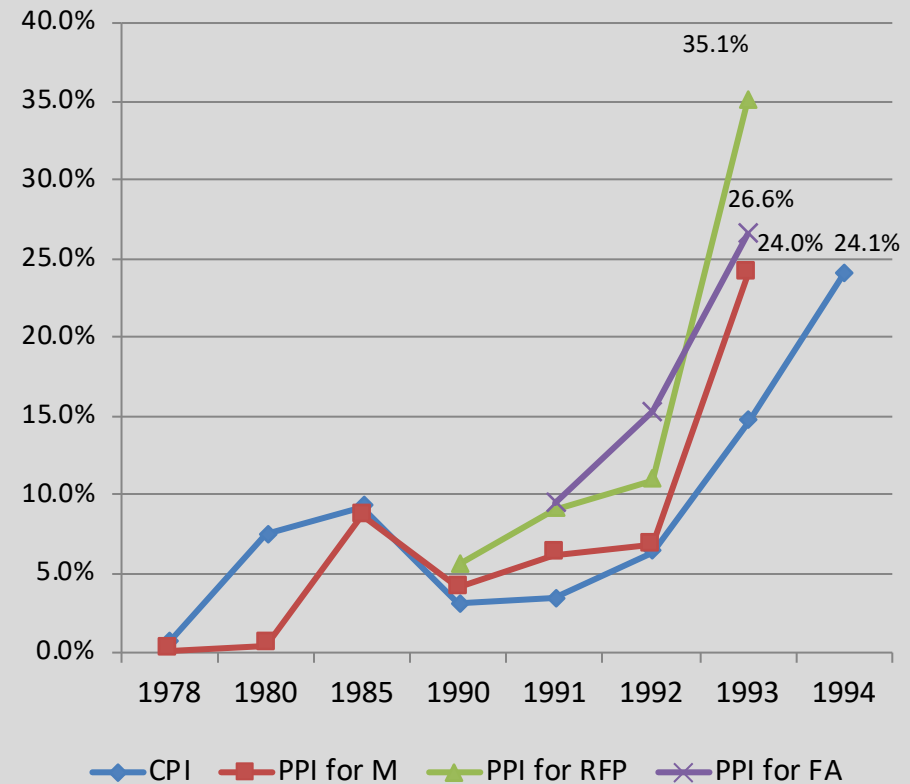
The Evolution of Public Infrastructure Financing and Its Risk Management in China

- **Stage I : 1978 ~1993, Central Government-dominating Model**
- **Problems and Risks:**

Growth Rate of GDP



Price Indices



The Evolution of Public Infrastructure Financing and Its Risk Management in China

- **Stage I : 1978 ~1993, Central Government-dominating Model**
- **Responses and Countermeasures:**
 - ◆ In 1993, the central government carried out financial system reform:
 1. Policy-based banks were set up, such as China Development Bank(1994), agricultural Development Bank of China(1994) to cut off the direct economic links between treasury bond issuing and base money as well as policy-based loan and Money supply.
 2. The Law of the People's Bank of China was enacted to forbid central bank from financing government deficit in any way.
 - ◆ In 1994, the central government Implemented the Tax-sharing/fiscal system reform to strengthen its capability of macroeconomic management.

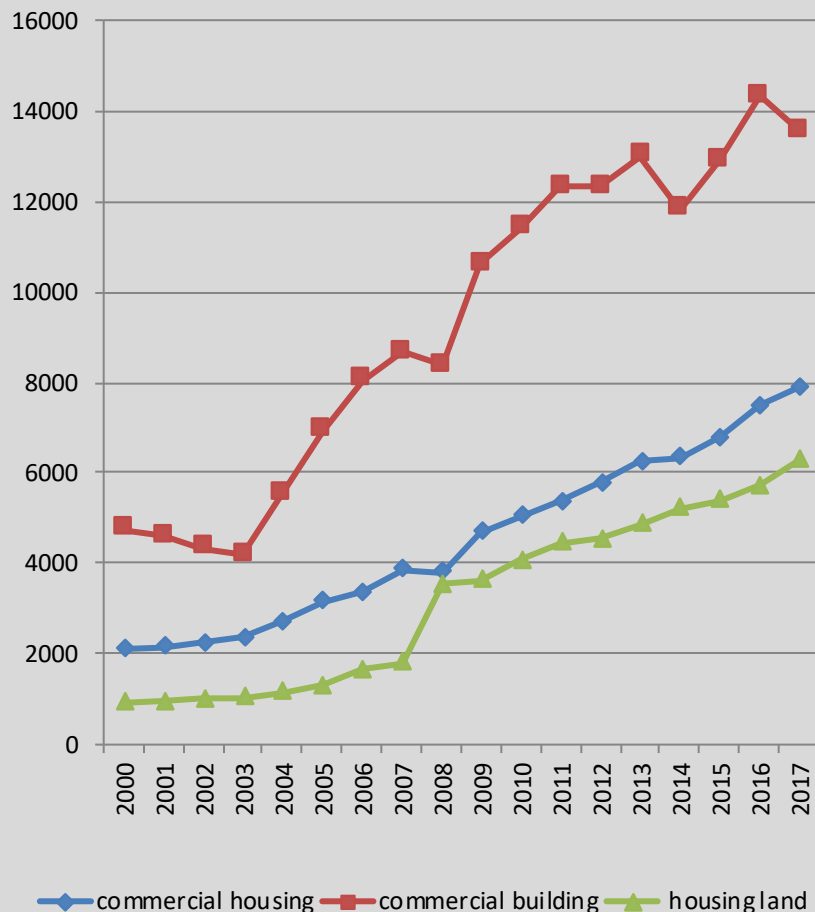
The Evolution of Public Infrastructure Financing and Its Risk Management in China

- Stage II : 1994 ~ 2014, Land Finance Model
- Background, Reform and Measures:
 - ◆ With the acceleration of urbanization and decentralization of the power to invest infrastructure, local governments have become the leading investors of regional public infrastructure.
 - ◆ However, the fiscal system reform in 1994 has greatly weakened the local government capability to tax revenue.
 - ◆ Therefore, the local governments actively sought off-budget ways to raise revenue to meet development needs. Among them, land financing is the most basic and main way.
 - ◆ In China, land system has typical binary characteristic, which we call “Rural Collective Land System and Urban State-owned land System”, which simply means the property right of rural land belongs to famer collective organization like village collective, and the property right of urban land belongs to the state. Particularly, the ownership of urban land belongs to the state council, but the land-use right belongs to local governments.
 - ◆ As the monopolistic supplier of operational land in the land market, local government can raise largely funds by bidding, auction and listing for urban land-use rights , especially after the real estate prices began to soar in the early years of 21 century.

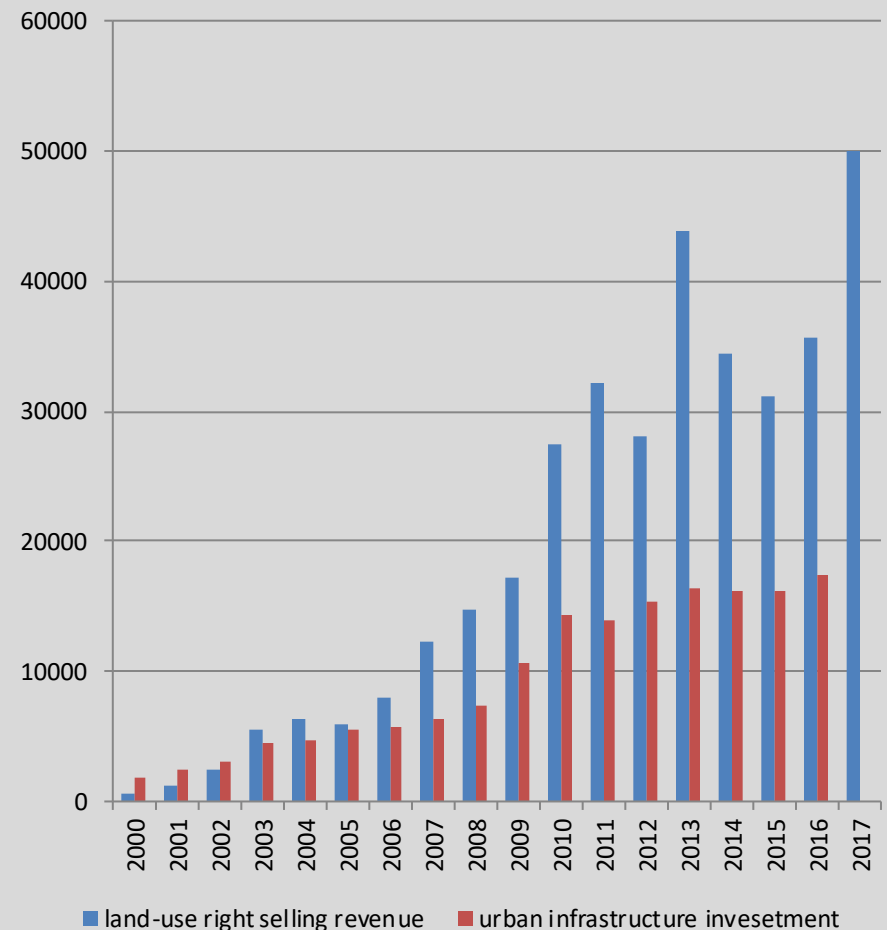
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- Stage II : 1994 ~ 2014, Land Finance Model
- Background, Reform and Measures:

Average Selling Price



Land Revenue and Urban Infrastructure Investment



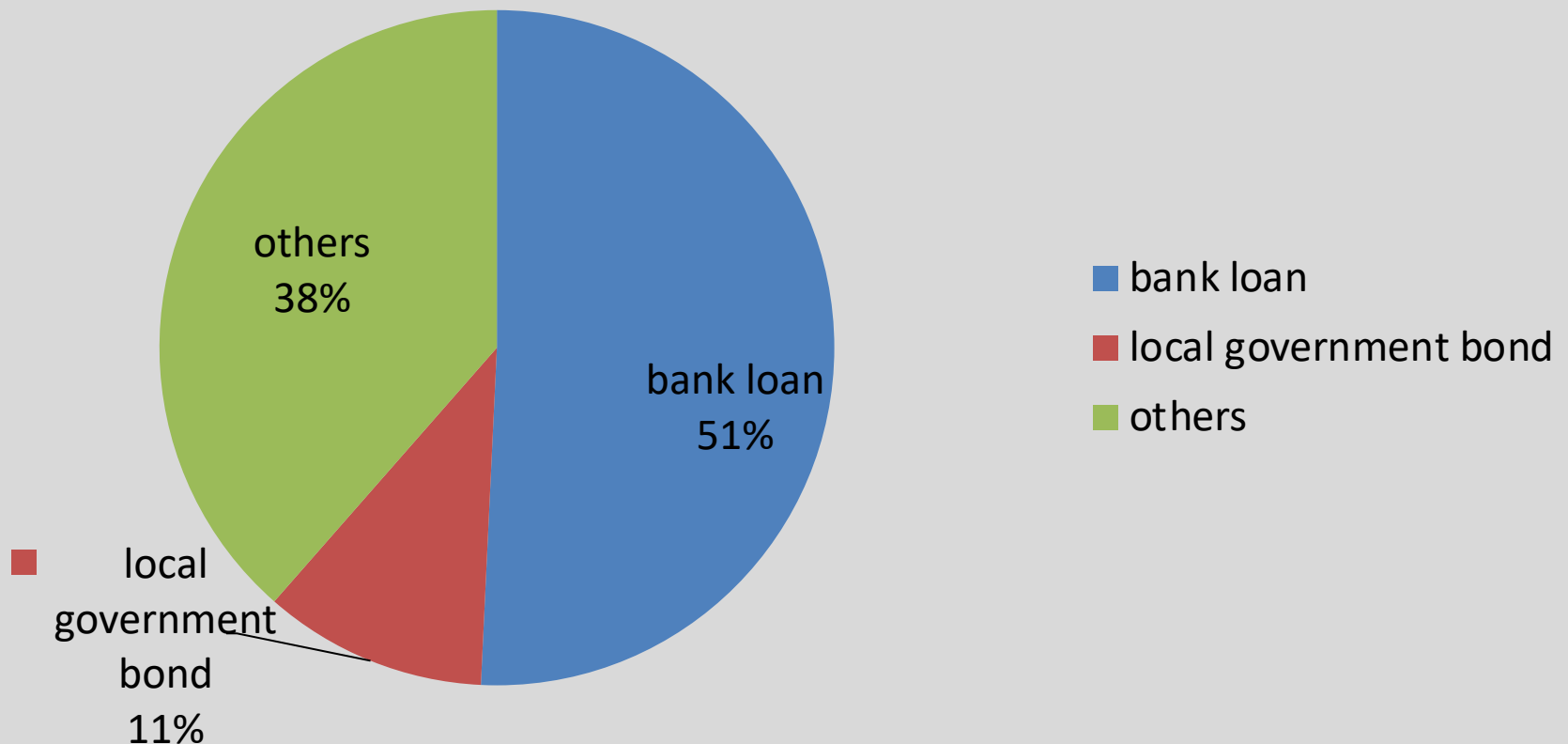
The Evolution of Public Infrastructure Financing and Its Risk Management in China

- Stage II : 1994 ~ 2014, Land Finance Model
- Background, Reform and Measures:
 - ◆ Not only by selling the urban land-use right to increase infrastructure investment, but through injecting a large amount of assets like land, franchise and cash into their financing platforms(LGFVs, about 11000 firms as of end 2013) as financial leverage, the local governments raised huge money from banks by borrowing heavily and from capital market by issuing corporate bonds under the name of LGFVs. Most of these off-budget borrowings were used for regional infrastructure investments.
 - ◆ According to the statistics of the Audit Office of China, as of June 2013, about 5.5 trillion RMB or 51% of local government debt outstanding came from bank loans, and 1.16 trillion RMB or 11% of local government debt outstanding are in the form of LGFVs bonds and government bonds.

The Evolution of Public Infrastructure Financing and Its Risk Management in China

- Stage II : 1994 ~ 2014, Land Finance Model
- Background, Reform and Measures:

Compositions of Local Government Debts



The Evolution of Public Infrastructure Financing and Its Risk Management in China

- Stage II : 1994 ~ 2014, Land Finance Model
- Problems and Risks:
 - ◆ The size of local government debts rose rapidly. According the statistics of the Audit Office of China, by the end of June 2013, the local government debt outstanding reached RMB 10.8 trillion, and the average growth rate of local government debt was more than 33% from 1997 to 2010. The tremendous debt service pressure has affected the functioning of local government negatively. In order to these debts, some of county governments even stopped paying the salaries of civil servants.
 - ◆ Not only the local government, but a lot of financial institutions had been involved in the potential crisis. They had to constantly finance a great number of inefficient public projects to avoid excessive growth of non-performing loans.

The Evolution of Public Infrastructure Financing and Its Risk Management in China

- Stage II : 1994 ~ 2014, Land Finance Model
- Problems and Risks:
 - ◆ In addition, because of the continuing overdraw of local government from financial system and the acceleration of urbanization, a large amount of redundant liquidity and speculative capital surged into real estate market and other financial markets, creating asset price bubbles and contributing to the accumulation of systemic financial risks.

The Evolution of Public Infrastructure Financing and Its Risk Management in China

- Stage II : 1994 ~ 2014, Land Finance Model
- Responses and Countermeasures:
 - ◆ In 2010, with the outbreak of European sovereign debt crisis, central government started to remain on high alert for the buildup of the systemic fiscal risks and made policy to regulate the LGFVs.
 - ◆ Especially, in late 2014, central government adopted a strategy of “opening the front door and closing the back door” to revise budget law for tightening local government off-budget borrowing and other unregulated sources, while allowing provincial governments to issue bonds independently subject to an annual cap determined by the National People’s Congress.
 - ◆ As a result, local governments couldn’t borrow easily through LGFVs and were under intense pressure to finance infrastructure.

The Evolution of Public Infrastructure Financing and Its Risk Management in China

- Stage III : 2015 ~ , Regulated Mixing Model: Bond + PPP
- Background, Reform and Measures:
 - ◆ The revised budget law came into effect in 2015 and since then bonds issuance will be the only way for local government to borrow money.
 - ◆ Ministry of Finance of PRC will propose the annual quotas of local government debts for all provinces in terms of the outstanding and annual increase.
 - ◆ For releasing the huge pressure of repaying debts, the central government launched a debt-swap program allowing the local governments to issue bonds to refinance maturing debts. This program will last three years.
 - ◆ Meanwhile, to diversify the channel of public infrastructure financing and Improve the efficiency of government investments, the central government encouraged local government to take advantage of PPP as a new way to finance infrastructures in 2015.

The Evolution of Public Infrastructure Financing and Its Risk Management in China

- Stage III : 2015 ~, Regulated Mixing Model: Bond + PPP
- Problems and Risks:
 - ◆ Although the revised budget law allows provincial governments to issue their own bonds, the law imposes stricter control on the annual amount of bond issuance and the debt outstanding.
 - ◆ In such heavily-handed policy circumstance, the local governments and financial institutions jointly developed a few of new channels to raise funds for infrastructure investments.
 - ◆ These new channels of local government financing were actually some financial instruments or products developed by commercial banks, security companies, trusts, insurance companies or some kinds of combination of them, which we call them shadow bank in China.

The Evolution of Public Infrastructure Financing and Its Risk Management in China

- Stage III : 2015 ~, Regulated Mixed Model: Bond + PPP
- Problems and Risks:
 - ◆ Although these strict measures had curbed the growth of explicit debts, the size of implicit debts rose rapidly with the large-scale application of PPP and widespread use of new financing channels.
 - ◆ The systemic fiscal and financial risks rose significantly again.

The Evolution of Public Infrastructure Financing and Its Risk Management in China

- Stage III : 2015 ~, Regulated Mixed Model: Bond + PPP
- Responses and Countermeasures:
- In order to prevent the potential financial crisis, the financial regulation department of China including the people's bank of China, China banking and insurance regulatory commission, China securities regulatory commission, regulated and monitored the Off-balance-sheet business of commercial banks strictly.
- These measures forbid commercial banks, security companies, insurance companies, trusts and private funds to lend money to LGFVs and finance public infrastructures by issuing structured asset management products illegally.
- The Ministry of Finance of PRC organized its local offices to scrutinized the illegal financing of local governments and imposed severe administrative penalties on the government with irregularities. MOF also made strict policies to regulate the financial institutions' investment and financing businesses related to local government and state-owned enterprises.

The Evolution of Public Infrastructure Financing and Its Risk Management in China

- Stage III : 2015 ∼, Regulated Mixing Model: Bond + PPP
- Responses and Countermeasures:
- MOF launched a sweeping review of the PPP demonstration projects and made policies to strengthen the management of PPP demonstration projects, preventing the buildup of hidden risks stemming from irregular PPP projects.
- In the second half of 2018, MOF carried out a nationwide large-scale investigation into the implicit local government liabilities, and built up a database and statistic system specially for implicit liabilities. Some new policies will be made by MOF to strengthen the management of implicit liabilities in the foreseeable future.

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Sharing China's Experience on Public Infrastructure Financing and Its Risk Management

- Conclusion :
- ◆ The development of public infrastructure financing in China has experienced different stages. During each of these stages, local governments faced different policy environments and had different difficulties with financing. Therefore, by taking full advantage of the feasible policy and market conditions, local governments created different ways to finance infrastructures.
- ◆ The main principals of reforms are transparency, decentralization and efficiency. Each of the reforms aimed to improve the transparency and fairness of the decision-making system of public investment, to authorize the local governments more powers to invest to realize the appropriate match between powers and responsibilities, to introduce market mechanism and private forces to promote the efficiency of public project management.
- ◆ The public infrastructure investment and financing is a complex systematic engineering. Ensuring its sustainability has to ensure the sustainability of public project, project management firm and fiscal department simultaneously. The failure to maintain the sustainability of any part of the system will result in the failure of the whole system.