Research on Risk Prevention of Investment in Poverty Alleviation Development Fund
Taking B City of Yunnan Province as an Example
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ABSTRACT
Nowadays, under current national conditions, economic growth is slowing down, structural contradictions are becoming more prominent, and the willingness of social capital to invest is decreasing. As the government’s financial pressure increases due to its serious debt, it is hard for government investment to meet the demand for infrastructure construction. As a result, public-private partnerships (PPP), a funding model for a public infrastructure project, emerged. For now, the business model of commercial banks participating in the government’s poverty alleviation fund is not common in China, and there are few relevant risk analysis studies. This paper, through the method of literature review, analyzes the specific risks involved in this specific financial innovation business model from the perspective of commercial banks. Starting from the analysis of the era and policy background of the establishment of the poverty alleviation fund in City B, the paper analyzes the feasibility and risk management of Bank A through this innovative business cooperation under the current environment, so as to put forward risk prevention countermeasures. The paper finds that, according to the analysis of the balance of payments and disposable fund for City B, the total economic volume and comprehensive financial strength of City B will show significant growth in the next few years. Besides, the debt analysis of City B shows that the debt servicing capacity is in line with its overall economic development level. Therefore, the government of City B has the ability to repay debts and provide a strong guarantee for Bank A’s capital.

Keywords: risk management, poverty alleviation, 13th Five-Year Plan, public-private partnership

1. INTRODUCTION
Since 2011, Yunnan province's governments have issued documents [1] about regional development and poverty alleviation. In November 2017, the central government held a conference about poverty alleviation and pointed out that poverty alleviation should be the top priority of the "13th Five-Year Plan." Local governments should lead people and mobilize any possible social resources in order to make sure poor areas and people can be lifted out of poverty as soon as possible. Moreover, in late 2015, the Minister of Finance, Jiwei Lou, addressed two important points in his report [2] about promoting market-oriented transformation of government financing platform companies. Local governments should support public welfare projects undertaken by enterprises through the use of government functions such as financial subsidies and capital injection. Enterprises transferred from government financing platform companies must finance and service their debts in accordance with market-oriented principles. Meanwhile, it is proposed that public welfare projects or businesses can be implemented through government procurement [3].

The development of various undertakings is at a low level in City B, which is located on the southwest border of Yunnan province, which has long been characterized by widespread and deep poverty, weak infrastructure, and a low level of development. In 2010, the per capita net income for farmers in City B was 3416 yuan. According to the poverty line of per capita net income of less than 2,300 yuan, there are still about 880,000 poor people in the area. City B is located in a typical arid area, with severe drought and water shortages. The city’s basic conditions are poor, and its ability to resist natural disasters is fragile. Moreover, the main road network of City B has not yet been formed. 5 townships are not
accessible to cement, accounting for 9.43% of the total townships; 430 administrative villages are not accessible to cement roads, accounting for 74.43% of the total administrative villages; 3460 natural villages are not accessible to highways, accounting for 49.33% of the total natural villages. Besides, water conservancy facilities in City B are old and the problems of water shortage [4] are prominent. There are 97,200 households and 380,000 rural people who have difficulty drinking water.

Nowadays, under current national conditions, economic growth is slowing down, structural contradictions are becoming more prominent, and the willingness of social capital to invest is decreasing. As the government's financial pressure increases due to its serious debt, it is hard for government investment to meet the demand for infrastructure construction. As a result, public-private partnerships (PPP), a funding model for a public infrastructure project, emerged. For now, the business model of commercial banks participating in the government's poverty alleviation fund is not common in China, and there are few relevant risk analysis studies. This paper, through the method of literature review, analyzes the specific risks involved in this specific financial innovation business model from the perspective of commercial banks. Starting from the analysis of the era and policy background of the establishment of the poverty alleviation fund in City B, the paper analyzes the feasibility and risk management of Bank A through this innovative business cooperation under the current environment, so as to put forward risk prevention countermeasures. Therefore, the paper has practical application value for commercial banks to participate in government purchases and innovative development of PPP project financing models.

2. B CITY, YUNNAN PROVINCE

2.1. Development Potential

City B is located in the western part of the Yunnan-Guizhou Plateau, which is an important transport node. Many important railways and expressways, such as the Beijing-Kunming Expressway, Chengdu-Kunming Railway, and Hangzhou-Ruili Expressway, cross City B. Yunnan province has risen to the forefront of remote areas in recent years as the Chinese government implements many major development strategies, including "One Belt, One Road," the Yangtze River Economic Belt, and the Bangladesh–China–India–Myanmar Economic Corridor (BCIM Economic Corridor). Moreover, City B is the main route to western Yunnan and Myanmar, as well as Sichuan Province. Thus, City B became an important node for Yunnan province to build connections with Southeast Asian countries.

2.2. Development Strategy

Furthermore, the "13th Five-Year Plan" is a decisive stage for City B to promote overall development and achieve a moderately prosperous society at the same pace as Yunnan province and the whole country. Therefore, City B will strive to become a stronghold for the construction of "One Belt, One Road" and Yunnan province’s radial center for South and Southeast Asia. During the "13th Five-Year Plan," City B’s expected economic development targets are to achieve an explosive leap for economic development, improve public service and people’s living standards steadily, achieve an average annual GDP growth of more than 10%, and solve poverty problems in part of regions under current standards.

2.3. Financial Performance

Since the poverty alleviation fund was officially launched at the end of 2016, when analyzing the feasibility of the fund, this article uses the economic data from 2013 to 2015 from the perspective of the end of 2016, which reflects Bank A’s views on the fund’s business at that time.

2.3.1. Analysis of City B’s Key Economic Indicators

During the "13th Five-Year Plan," City B’s expected economic development targets are to achieve an explosive leap for economic development, improve public service and people’s living standards steadily, achieve an average annual GDP growth of more than 10%, and solve poverty problems in part of regions under current standards.

2.3.2. The analysis of financial revenue and expenditure for City B

Table 1: City B's 2013-2015 local financial revenue and expenditure (Unit: ten thousand yuan)

| Name                                   | 2013      | 2014      | 2015      |
|----------------------------------------|-----------|-----------|-----------|
| I. Revenue and Expenditure in General budget |           |           |           |
| General budget gross revenue          | 1,819,074 | 2,128,444 | 2,631,146 |

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1) Revenue: According to the financial revenue table, the general budget revenue for City B has been steadily increasing. From 2013 to 2015, the general budget revenue was 181.91 billion yuan, 212.84 billion yuan, and 263.11 billion yuan, and the average growth rate was 20.31%. In these three years, City B received 117.15 billion yuan, 138.04 billion yuan, and 143.85 billion yuan in various subsidies from the higher levels of the government, with an average growth rate of 11%.

Meanwhile, according to the current social development of City B, annual GDP kept rising, the economic volume continued to increase, and its revenue and expenditure arrangements were very reasonable. Besides, the Chinese government and Yunnan province are going to implement a series of economic development strategies that will provide more development opportunities for City B.

According to the document [5] released by the State Council of China, they will implement incentive policies for 20 cities (states) that have been more effective in implementing relevant policies, and City B was listed in it. Thus, this created strong conditions for City B to achieve an explosive leap of economic growth in the "Thirteenth Five-Year Plan" period. In addition, in 2016, the government of Yunnan province arranged special funds for poverty alleviation that increased by more than one time compared with 2015 and maintained a larger growth year by year.

2) Expenditure: From 2013 to 2015, the growth of general budget expenditure for City B was relatively flat, at 32.79 billion yuan, 29.13 billion yuan, and 30.55 billion yuan. In addition, government fund expenditure is steady too. From 2013 to 2015, it was 32.79 billion yuan, 29.13 billion yuan, and 30.55 billion yuan.

| Item                                                                 | 2013       | 2014       | 2015       |
|------------------------------------------------------|------------|------------|------------|
| Public budget revenue                                | 563,703    | 637,206    | 681,888    |
| Tax revenue                                           | 426,600    | 454,692    | 459,362    |
| Non-tax revenue                                      | 137,103    | 182,514    | 222,526    |
| Superior subsidies revenue                           | 1,171,521  | 1,380,358  | 1,438,484  |
| Tax rebate revenue                                   | 113,030    | 114,911    | 115,492    |
| Special transfer payment revenue                     | 546,697    | 710,667    | 614,291    |
| General transfer payment revenue                     | 511,794    | 554,780    | 708,701    |
| Last year’s surplus revenue                          | 53,961     | 60,393     | 53,196     |
| Local government bonds revenue                       | 7,500      | 42,000     | 425,000    |
| Transferred funds                                    | 22,389     | 8,487      | 32,578     |
| Superior subsidies revenue                           | 1,171,521  | 1,380,358  | 1,438,484  |
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| Local government bonds revenue                       | 7,500      | 42,000     | 425,000    |
| Transferred funds                                    | 22,389     | 8,487      | 32,578     |
3) Balance of income and expenditure: For the general balanced budget of City B, the budget surplus was 6.04 billion yuan, 5.32 billion yuan, and 5.97 billion yuan. Moreover, in 2015, they arranged 1.23 billion yuan of budget stabilization adjustment funds to increase their ability to balance the budget across years.

On the other hand, the governmental fund budget balance is maintained as well. The governmental fund budget surplus was 4.82 billion yuan, 4.04 billion yuan, and 2.17 billion yuan for 2013 to 2015. In conclusion, the total economy of City B will significantly increase, and the growth rate of fiscal revenue will remain above 10%. Thus, the overall financial strength and the government's ability to service the debt of City B will be further enhanced.

2.3.3. The analysis of government debt for City B

| Table 2 | City B government debt (Unit: ten thousand yuan) |
|---------|-------------------------------------------------|
| Government Debt Indicator | 2014 | 2015 |
| Repayment debt | 2,119,373.72 | 2,088,895.81 |
| State Level | 683,413.86 | 715,495.43 |
| Secured debt | 72,054.78 | 70,027.11 |
| State Level | 260.00 | 260.00 |
| Salvage liability debt | 23,770.81 | 639,173.52 |
| State Level | 5,297.00 | 70,737.41 |
| Government debt stock | 2,119,373.72 | 2,088,895.81 |
| State Level | 683,413.86 | 715,495.43 |
| City B government debt ratio | 90.04% | 92.38% |
| City B government liability ratio | 31.57% | 28.82% |
| City B government debt servicing ratio | 13.44% | 23.39% |

Until the end of 2015, the government liabilities of City B accumulated to 279.81 billion yuan, which included 208.89 billion yuan, 7 billion yuan, and 63.92 billion yuan. According to the report, Yunnan province issued 1567 billion yuan of local government bonds in 2015, which were used to replace the first type of debt at all levels of government. In City B, 47.6 billion yuan were replaced, representing 3% of the debt in Yunnan province.

The central government will continue to issue local government bonds in order to replace the local government debts at a rate of 32.9 billion yuan per year.

So City B has sufficient sources of repayment for first-class debt, and it will need about 6 years plus 3 months to replace all the first-class debts. The Minister of Finance, Jiwei Lou, said they plan to replace all the remaining 14.34 billion yuan in 3 years. According to the above analysis, the debt servicing capacity of City B matches its economic development and its overall debt level is within a reasonable range.

2.3.4. The analysis of disposable financial resources for City B

| Table 3 | City B's 2013-2015 disposable financial resources (Unit: One hundred million yuan) |
|---------|----------------------------------|
| Revenue | 2013 | 2014 | 2015 | Mean |
| 1. Local general budget revenue | 56.37 | 63.72 | 68.19 | 62.76 |
| Growth rate | 21.70% | 13.04% | 7.01% | 13.92% |
| 2. Superior subsidies revenue | 117.15 | 138.04 | 143.85 | 133.01 |
| Growth rate | 4.57% | 17.83% | 4.21% | 8.87% |
| 3. Revenue from state-owned land usage | 23.93 | 24.64 | 24.66 | 24.41 |
| Growth rate | 34.77% | 2.93% | 0.11% | 12.60% |
| 4. Revenue from off-budget financial accounts | 2.19 | 2.13 | 1.31 | 1.88 |
| Growth rate | 1.13% | -2.80% | -38.42% | -13.36% |
| 5. Rigid spending | 31.08 | 36.92 | 38.92 | 35.64 |
| Growth rate | 18.79% | 5.40% | 12.10% |
| 6. Disposable financial resources | 168.57 | 191.6 | 199.09 | 186.42 |
### Growth Rate and Expenditure Analysis

| Expenditure                      | 2013     | 2014     | 2015     | Growth rate     |
|----------------------------------|----------|----------|----------|-----------------|
| 1. General budget expenditure    | 172.65   | 205.19   | 216.23   | 11.52%          |
| 2. Superior expenditure          | 1.77     | 1.98     | 2.08     | 3.75%           |
| 3. Debt service expenditure      | 1.41     | 0.41     | 37.6     | 7.64%           |
| 4. Transferred fund              | 0.02     |          |          |                 |
| 5. Annual balance                | 6.04     | 5.32     | 5.97     |                 |
| Growth rate                      | 11.2%    | -11.9%   | 12.27%   | 4.10%           |

### Local Government Expenditure

| Local government expenditure   | 2013    | 2014    | 2015    | Growth rate     |
|--------------------------------|---------|---------|---------|-----------------|
|                                | 181.89  | 212.82  | 261.89  |                 |

From 2013 to 2015, the local disposable financial resources for City B were 168.57 billion yuan, 191.6 billion yuan, and 199.09 billion yuan, with an average growth of 8%. Thus, according to the increasing trend of the local disposable financial resources of City B, it is predicted that the local comprehensive financial resources of City B from 2016 to 2026 will be 21.113 billion yuan, 22.400 billion yuan, 23.732 billion yuan, 25.026 billion yuan, 27.852 billion yuan, 29.394 billion yuan, 31.029 billion yuan, 32.664 billion yuan, 34.536 billion yuan, and 36.482 billion yuan, with an average growth rate of 5.66%. In the next 10 years, the local comprehensive financial resources of City B will be 310.626 billion yuan. Furthermore, it is predicted that superior subsidy revenue that City B will receive will be 15.32 billion yuan, 16.316 billion yuan, 17.376 billion yuan, 18.506 billion yuan, 19.709 billion yuan, 20.99 billion yuan, 22.354 billion yuan, 23.807 billion yuan, and 25.26 billion yuan, with an average growth rate of 6.5%. Therefore, the superior subsidies that City B will receive total 2351.90 billion yuan.

Based on the above analysis and prediction, the superior subsidies revenue in B city will be 235.190 billion yuan and the local comprehensive financial resources of B city will be 310.626 billion yuan in the next 10 years. This will provide a strong guarantee for the funds of Bank A.

### 3. Risk Prevention Analysis of Banks’ Participation in the Business of the City B Poverty Alleviation Fund

#### 3.1. Analysis of Capital Usage Risk Prevention

The fund invested in 29 poverty alleviation projects, which included 3654 small projects that cover the construction of infrastructure and development of basic public services closely related to the people who live in poor areas of City B. Although all the small projects are included in the government procurement and relevant compliance documents have been obtained, it is still very hard and unrealistic for Bank A to get a detailed understanding of every project’s real situation. That is due to the fact that there are a large number of projects and a huge amount of funds involved. While there were a limited number of human resources available, in order to reduce this risk, the government of City B promised to include all the above projects in the scope of government procurement of services before the fund was invested. Thus, Bank A, as the limited partner of the fund, can only rely on government revenue for the repayment funds, although the fund has government credit endorsement.

#### 3.2. Analysis of Policy Risk Prevention

Similar to venture capital funds, the poverty alleviation of City B is also highly policy-oriented. Therefore, when the government changes its policies due to the macro environment, the value orientation and economic interests will be inevitably impacted. Thus, conflicts are likely to arise between the government and financial institutions because of the adjustment of the policies, which will lead to policy risks.

Since the 18th National Congress of the Communist Party of China, the Chinese government has accelerated the establishment of a standardized local government debt financing mechanism [6]. And limit management is one of the most important systems for local governments to manage debts, which limits the scale of local government debt by related laws [7]. According to China’s new budget law, only the necessary part of the construction investment funds of the province, autonomous regions, and municipalities directly under the central government that are approved by the State Council can be financed through the issuance of local government bonds to raise debt [8]. The State Council also stipulates that limit management will be implemented to control the scale of local government debts. Even though local government financing behavior has been gradually regulated since the implementation...
of the revised law [9] in 2014, there is still a lot of illegal debt financing behavior. Thus, in 2017, the Chinese government issued various policies [10], pointing to the government's illegal debt-raising behavior and strengthening the management of special bonds.

The short time interval between the introduction of the above documents and policies shows China’s regulatory attitude towards local government financing practices. In the B City Poverty Alleviation Investment Fund that Bank A invested in, the source of repayment is the local government budget. The government procurement funds are included in the rolling budget of City B, and the central general transfer income and local public revenue are used to provide funding sources and guarantee the project. Since the duration of this Poverty Alleviation Fund is 10 years, the policy risk triggered by policy changes during this period should not be underestimated.

### 3.3. Analysis of Moral Risk Prevention

The Poverty Alleviation Fund is based on the primary principle of "precise poverty alleviation and poverty eradication". On one hand, the local government guides funds and social capital to create synergy through the financial innovation model. On the other hand, the fund can help solve the problem of the long cycle of poverty alleviation. However, since the fund involves a large area, a huge amount of funds, and small and scattered projects, it's easy for relevant institutions and personnel to obtain personal interests, for example, they may use insider information and trade confidential information to make a profit, or they may fail to exercise due diligence in their work. These actions will result in the occurrence of subsequent risk events.

### 4. CONCLUSION

In conclusion, according to the analysis of the balance of payments and disposable fund for City B, the total economic volume and comprehensive financial strength of City B will show significant growth in the next few years. Besides, the debt analysis of City B shows that the debt servicing capacity is in line with its overall economic development level. Therefore, the government of City B has the ability to repay debts and provide a strong guarantee for the Bank A's capital. The Poverty Alleviation Fund of Bank A involves a large number of small projects, a huge amount of funds, and covers a large geographical area. Thus, the fund's capital usage risk and moral risk prevention are essential to its success. Moreover, due to the central government’s implementation of the policies and the long duration of the Poverty Alleviation Fund, policy risk caused by policy changes is also important.

As for the limitations of this paper, the Poverty Alleviation Fund has a duration of ten years, and the paper only analyzes the economic data from 2013 to 2015, from the perspective of the end of 2016. Thus, there may be undiscovered and unpredicted problems that arise in the future operation process that need further research.

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