

# An Analysis of the Model of Asset Securitization in China's PPP Project

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**Abstract:** *Asset securitization is conducive to revitalizing the stock assets, improving the liquidity of assets, and accelerating the withdrawal of social capital funds. This paper studies the scope, classification and operation points of PPP project asset securitization, and summarizes the different operation modes of PPP project asset securitization. According to the current problems of asset securitization in the PPP project, put forward the corresponding policy recommendations.*

**Keywords:** PPP project, asset securitization, operation mode, policy suggestion

## 1. Introduction

With the introduction of a series of policies and measures for deepening the reform of the country, PPP investment boom has been launched in China. But because the PPP project has the problems of social capital investment and the long operation cycle, it affects the investment will of social capital, and financing is the key to promote the landing of the PPP project. Asset securitization can revitalize stock assets, improve asset liquidity and speed up the withdrawal of capital from social capital. Drawing asset securitization in the PPP project will help to solve the problem of the long return cycle of the PPP project, attract more social funds to provide public services, and improve the stability of the project.

## 2. Literature review

Wang Quanxin (2005) systematically expounds the risk factors of the application of PPP model in infrastructure construction in China, and then constructs the risk assessment system, and analyzes the influencing factors in detail<sup>[1]</sup>. Xu Dong (2006) thinks that asset securitization is essentially different from obtaining credit through its own credit, and that the promoters will sell their future income to achieve the purpose of financing<sup>[2]</sup>. Chen Rong and Guo Xiaowu (2005) found that the option adjustment margin method is suitable for the pricing of asset securitization products, and they analysed its calculation method and application scope, which lays a foundation for the application of the follow-up practice<sup>[3]</sup>. Gu Meiyong (2015) advocates the combination of PPP project and asset securitization, but thinks that we still need to pay attention to the legal problems to be solved<sup>[4]</sup>. Zhu Shiliang and Zhao Jing (2015) think that the combination of asset securitization and PPP project is an effective way to resolve the local government debt crisis, which is beneficial to the sustainability of the financing of urbanization in China<sup>[5]</sup>.

## 3. The main points of the operation of PPP Asset Securitization

### 3.1 The scope and classification of PPP Asset Securitization

The China Securities Regulatory Commission (CSRC) has

defined the scope of the related projects for the securitization of the government and the social capital cooperation (PPP) project in the "question and answer to the supervision of asset securitization (one)" in May 2016. It is pointed out that the asset securitization of the government and social capital cooperation (PPP) project should be included in the list of PPP demonstration projects of the Ministry of Finance or the PPP project library of the national development and Reform Commission in principle. The cash flow of PPP project can be derived from government fees, user fees, government subsidies and so on. The government expenditure or subsidy involved should be included in the annual budget and the medium term financial planning.

According to the notice on matters relating to the securitization of the government and social capital cooperation projects launched in June 2017, the asset securitization of PPP project can adopt three modes to broaden the financing channels of item company, to revitalize the assets of the item company shareholders, and to improve the liquidity of the assets to ensure the smooth implementation of the PPP project.

- 1) For the mode of the item company as the sponsor, it can be based on the different types of user pay, government pay, feasibility gap subsidy and so on. Using the right of income and contractual claims that can bring cash flow to the project as the basic assets, issue asset securitization products. And the PPP project in the construction period can also be entrusted to the future income rights stipulated in the PPP contract, and the asset securitization products will be issued.
- 2) For the mode of the item company shareholder as the sponsor, if there does not have a restrictive agreement on the relevant rights such as equity transfer pledge and other related rights, after 2 years of operation and completion of the project, the shareholders of item company are issuing assets securitization products based on the equity that can bring cash flow.
- 3) For the various types of creditors that provide financial support for the item company and the contractors that provide the construction support for the item company as the sponsor's model, in the project operation stage, the asset securitization products are issued with the contract creditor's right and the income right as the basic assets.

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In addition, for the PPP project that can start asset securitization, the project should be standardized in operation and clear in ownership. The following conditions are required: the project implementation plan science, the complete contract system, the mature operation model, the reasonable risk allocation, and clearly stipulate that the value evaluation and the financial affordability are required to be demonstrated.

### 3.2 PPP project asset securitization main body and operation process

#### 3.2.1 Subject analysis

In the process of securitisation of the PPP project, the following participants will involve the following parties: the original owner, the Special Purpose Company (SPV), the plan manager, the credit rating agency, credit enhancement institutions, the trusteeship, the law firm and the accounting firm. A complete asset securitization process requires every participant to play their respective roles and push forward together.

The original owner is the starting point of the asset securitization process, and is also the ultimate financing side of the asset support special plan. PPP item company transfers the right of income or PPP contractual claims as assets to the SPV to achieve the effect of bankruptcy isolation.

SPV is a special purpose carrier, and its establishment has achieved the purpose of isolating the risk of securitized assets from the original owners, and to achieve real sale. No matter whether the original owner is bankrupt or not, it will not affect the special purpose carrier. At present, in China, the asset securitization of PPP project belongs to the asset securitization of the enterprise. Generally, a special plan of asset support is established by a securities firm or a fund subsidiary company, and is regulated by the SFC.

The plan manager, which is generally held by the securities company, needs to combine the PPP item company's income rights or the creditor's right assets to formulate the financing scheme and the way to increase the credit. In addition, the manager needs to coordinate the audit report issued by the accounting firm, coordinate the law firm to issue a legal opinion book, coordinate the credit rating agency, and carry out a credit rating for the securities.

Credit rating agencies, on the basis of the due diligence of accountants and lawyers, completed the analysis of the credit quality of the PPP item company, disclosed the PPP item company loan guarantee and the cash flow of the PPP project, and provided its related credit rating.

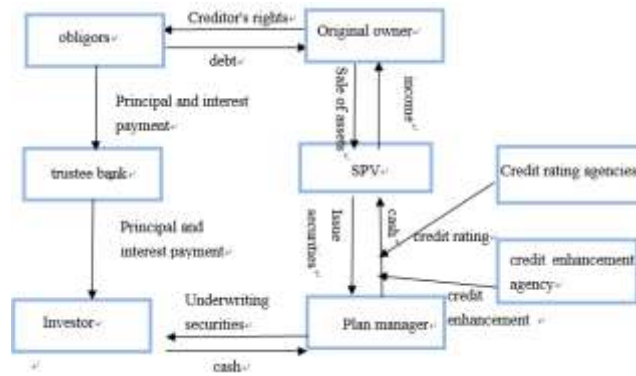
The main function of credit enhancement institutions is to design credit support for asset backed securities. Generally speaking, the means of credit enhancement can be divided into two types: internal credit enhancement and external credit enhancement.

Trustees, usually commercial banks, provide account hosting services for asset support special projects.

A law firm needs to complete the assessment of the legitimacy of the basic assets of the PPP project through a due diligence, and to issue a legal opinion book and be responsible for the drafting of the relevant legal documents.

The accounting firm will verify the financial situation of the PPP item company and the basic assets such as the right of income or the contractual creditor's rights, issue the audit report, and disclose the related transactions.

#### 3.2.2 Basic operational process



**Figure 1:** The basic operation process of PPP Asset Securitization

Take the government paid PPP project as an example, first of all, the PPP item company as the original equity holder has a negotiable creditor's asset, and in the government paid PPP project, the government is the original debtor. Secondly, PPP item company sells basic assets to SPV, sets up asset pools, and achieves the effect of bankruptcy isolation through real sale. Then the asset pool will be upgraded to make it higher than the rating of the issuer and reduce the financing cost of the original equity holders. According to the credit rating agency's rating on the asset backed securities, the plan manager issues the asset-backed securities to investors. During the payment period of the asset support securities, the manager ensures that the PPP cash flow paid by the government is regularly transferred to the special project set up in the trusteeship, and the cash flow in the special account is managed in a day-to-day manner. On the day of payment, the trustee shall be entrusted to pay principal and interest to the investor according to the contract.

## 4. The current situation and problems of the development of PPP Asset Securitization

### 4.1 PPP asset securitization products

In February 3, 2017, "Pacific Securities - a special plan for the return of income rights for Xinsuiyuan treatment services" has been successfully issued in the inter agency private offering and service system, which has become the first PPP asset securitization project in the domestic market. In March 15, 2017, the first PPP Securitization Product of the Shenzhen stock exchange was formally established, "Guangfa Heng Jin - Guangsheng Dongjiang environmental protection Humen green source project PPP project" was formally established. Generally speaking, the proportion of securitisation projects of

PPP projects is still very small. As of now, 10 items of securitisation projects of PPP projects have been sorted out, as shown in the following table 1.

From the basic assets of the PPP asset securitization, the source of cash flow is based on the right of project income. The scope of the assets includes the public utilities and infrastructure, school construction, comprehensive corridor, road construction, sewage treatment, parking lot and so on.

**Table 1:** PPP asset securitization project

number	Project abbreviation	Amount of issue (10000 yuan)	term	level
1	Shandong Finance University	67000	10	AAA
2	17 HuaXia	320000	6	AAA
3	YiShi	38000	12	AA+
4	DongHuan	152480	15	AA+
5	17ShouChuang	53000	18	AAA
6	17JiuTong	70600	6	AAA
7	PR QingChun	115800	14	AAA
8	17ChuanTou		12	
9	LvYouYuan	32000	15	AAA
10	17FengXi	10000	5	AA+

The existing PPP assets support securities rating are AA+ and AAA, of which the AA+ level has 3 single, the total amount of 2 billion 5 million yuan, the AAA level of 6, the total amount of 6 billion 584 million yuan. PPP asset backed securities are widely distributed in Jiangsu, Shaanxi, Sichuan, Shanghai, Guangdong, Shandong and Zhejiang. The issuance of PPP project asset securitization has a long span, which has a distribution from 5 to 18, but the duration of the project is most long, and the duration of the 7 issue is more than 10 years.

#### 4.2 Problems in PPP asset securitization in China

##### a) The laws and regulations are not yet sound

In the current PPP related policy documents, the PPP project is clearly encouraged to broaden the financing channels through asset securitization, but PPP itself is a brand new reform cause, and the asset securitization of the PPP project has always had no perfect legal guarantee, and many problems are still not clear.

##### b) The transaction mechanism needs to be perfected

From the actual situation, the relevant mechanisms for the acceptance, audit and record of the PPP project asset securitization are not yet perfect, and the PPP project asset securitization products are relatively small in market scale and low in product liquidity.

##### c) The duration of the project is not matched

The PPP project has a long cycle and a large period of operation in 10~30 years. The single asset securitization product term is difficult to cover the whole life cycle of a single PPP project. After the expiration of the asset securitization products based on the income rights of the PPP project, the further securitization of assets will not only be cumbersome in the procedure, but also increase the cost of financing.

##### d) Lack of medium and long term investors

At present, China's insurance companies have a higher investment threshold for asset securitization products, and

there are still definite restrictions on the investment access of asset securitization products by large institutional investors, such as enterprise annuity and social security fund.

## 5. Conclusion and Suggestion

At present, the continued development of asset securitization of PPP projects in China needs to improve the policy system, promote the formulation of a special PPP project asset securitization policy document, establish a unified distribution, listing and trading rules. At the same time, it needs to improve the liquidity of PPP project asset securitization products, to build a diversified investment market exit mechanism, to extend the PPP project asset securitization products trading platform.

The PPP project has the characteristics of large investment, long duration and stable returns, which match with the needs of medium and long term institutional investors. It is proposed to design asset securitization products that meet the characteristics of PPP project and cover the whole life cycle of PPP projects, and encourage institutional investors, such as insurance funds, social security funds, pension and housing provident fund, to participate in the investment of asset securitization products of the PPP project.

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