

# *Asset Backed Securitization Development Studies*

## *--Based on Guojin Railway Construction Chongqing YuSui Expressway Closed Infrastructure Projects*

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**Abstract:** The Asset Backed Securitization (ABS) finance model is a technique of financing that involves the securitization of assets from a project. This model is secured by the projected revenue generated by project assets and a project financing strategy that involves raising funds through issuing bonds in the capital market. The existing ABS financing model, widely used as a project financing mechanism in the global capital market, holds immense importance for both the financial market and economic progress. Furthermore, it has consequently garnered the interest of numerous researchers. This study examines the comparative development of asset-backed securities domestically and internationally, as well as their actual application and implementation in China. This text explores the origins and development processes, characteristics, and advantages of domestic and overseas ABS financing structures. This article utilizes global expertise and real-world examples to present a future outlook for the extensive implementation of ABS in China. It aims to offer valuable insights for China's market development, compliance with financial institution regulations, alignment with market demands, and informed decision-making for relevant stakeholders in the field.

**Keywords:** Project financing model, ABS, risk analysis

### 1. Introduction

The Asset-Backed Securitization (ABS) originated in the United States. During the 1970s and 1980s, residential mortgage pass-through securities were first developed to meet the financing requirements of home buyers, providing a large source of funds to support house demands of the baby boomer generation. Banks have expanded the range of their underlying assets in response to the success of residential mortgage securitization, which has led to the inclusion of commercial real estate, student loans, credit cards, vehicle loans, and other areas in asset securitization. The progress of interest rate liberalization has led to the adoption of asset securitization, which facilitates the restructuring of banks' business models and fulfills the requirements of institutional investors, such as money market funds, for assets that are both low-risk and highly liquid [1]. The ABS financing model relies on project assets and generates funds by issuing bonds in the capital market, offering firms and projects

diverse channels for financing. Asset-backed securities differ from stocks and conventional bonds in that they do not represent ownership in a specific corporate company. Instead, they represent a claim on the cash flow or residual interests created by a pool of underlying assets. These securities are a novel type of investment that is supported by asset credit. Therefore, the revelation of information regarding the underlying asset pool serves as a crucial foundation for investors of asset-backed securities to assess risks and make informed investment choices. Strengthening the information disclosure of the underlying asset pool in credit asset securitization is highly important, which helps to accurately represent the risk and return status of the underlying assets, safeguard investor interests, mitigate risks, and facilitate the sound growth of the credit asset securitization industry [1].

This paper presents suggestions for the development of Asset-Backed Securities (ABS) models in China, based on research and analysis of the Chongqing Yusui Expressway project by Guojin Railway Construction. It also provides a comprehensive overview of relevant ABS financing models from both domestic and international cases. The findings of this study contribute to the existing research in this field.

## **2. The origin of ABS abroad**

ABS first appeared in the U.S. financial market in the 1970s for alleviating the lack of liquidity of financial institutions. In the late 1960s, the United States experienced a surge in suburbanization, leading to increased demand for housing financing. Additionally, the post-war baby boom generation reached the age of home purchases, further straining the traditional residential financing system. As a result, people started exploring the capital market as an alternative source of funds to support housing financing. The main method used is that deposit and lending institutions issue long-term bonds, referred to as collateral-backed bonds, as collateral for the mortgage loans they issue. However, the efficiency of this financial instrument is not satisfactory. The major drawback is that the issuance of such bonds requires the thrift institution to provide over-guarantee, with the value of the mortgages used as collateral is often two to three times the face value of the bonds issued. The suboptimal utilization of collateral significantly hampers its capacity to support collateral-backed bonds, necessitating the development of more efficient financial instruments in capital markets. Since the 1970s, the government's financial liberalization and deregulation of financial regulations have objectively provided a relatively relaxed environment for mortgage securitization innovation and development. The rise of a large number of non-depository financial institutions, such as mortgage banks, pension funds, insurance companies, mutual funds, etc., as well as the development of financial innovation and electronic information technology, have provided new development opportunities for the increasing securitization, marketization, and globalization of housing finance in the United States. Therefore, mortgage securitization is a natural choice for the United States to construct a housing finance system based on the market economy. In the mid-80s of the 20th century, mortgage securitization spread to the European and American markets, mainly represented by the United Kingdom, Germany, Sweden and Canada. Mortgage securitization in the Asian market began to emerge in the mid 1990s, with Hong Kong being the most successful one [2].

In the 21st century, the United States has the largest asset securitization market globally. Consequently, its expertise in developing and implementing financial instruments has garnered international interest. Moreover, the US is crucial in driving global economic growth. Although the subprime mortgage crisis in the US 2007 was mostly caused by asset securitization, it did not lead to the disappearance of the nation asset securitization market. Instead, the industry has adapted and become more favorable through swift legislative changes [3].

Professor Wang Yuanzhang from Wuhan University discussed the global financial crisis caused by the subprime mortgage crisis. He highlighted that the US subprime mortgage crisis impacts the global economy, and given that the US credit asset securities have a well-established marketization

and credit rating system, their crisis poses a challenge for China in promoting the securitization of credit assets. This is because China's credit rating system is still being established and the level of marketization could be more advanced. Therefore, China may need to slow down or halt the asset securitization process. However, supporters argue that China's asset securitization pilot is very different from that of the United States regarding macroeconomic background, underlying asset quality, and regulatory strictness. Therefore, they believe China will not make the same mistakes as the United States [4].

### 3. The current situation of domestic ABS

For example, in August 1996, Zhuhai City issued two batches of debt totaling 200 million US dollars with the support of transportation registration fees and highway tolls, which were arranged by Morgan Stanley, a well-known investment company in the United States, and were rated BBB and BB, respectively, and oversubscribed. This marks the inaugural implementation of ABS financing in China [5].

The main reason for the slow progress of asset securitization in China in the early stages is that asset securitization, as a structured finance product, involves the cooperation of accounting, taxation and legal aspects, whether it is asset transfer or securities issuance [1].

The ABS financing model was first introduced in Chongqing, China in 1998 as a pilot program. Over time, it has been steadily implemented across the country and has now become a significant approach for project financing. However, in recent years, the scale of China's asset-backed securities market has shown a trend of expanding year by year, which is due to the gradual enrichment of product categories, from the initial consumer loans, auto loans, to the current ABS products of diversified underlying assets such as enterprise accounts receivable, infrastructure charges, and cultural industries. China's economy is improving as the market develops. Private assets are increasing, and the investor structure of China's asset-backed securities is becoming more complex. This includes not only traditional investors like financial institutions, enterprises, and funds but also long-term funds such as pension funds and social security funds. Their entry into the market has increased market activity. The government is highly focused on developing the asset-backed securities market and has implemented various policy measures in recent years. These measures simplify the issuance approval process, encourage innovation, and support infrastructure, all of which promote the healthy growth of the domestic asset-backed securities market. However, there are still some shortcomings in China's asset-backed securities, and there is a need to continuously strengthen the legal and regulatory system, product innovation, investor education, credit rating system, and the quality of the underlying assets.

Zhang Chaoying highlighted that despite the efforts of various regulatory departments such as the State Council, the People's Bank of China, the China Banking Regulatory Commission, and the China Securities Regulatory Commission to promote asset securitization and expand its pilot project, the reality is that asset securitization is currently facing challenges in China. The primary objective of asset securitization is to enhance the liquidity of credit assets, increase the share of direct financing, and improve the asset-liability structure of commercial banks. He believes that the main reason for this situation is that the policy system and market demand are not well integrated. The application of securitization in China should be carried out on the basis of basic principles and in light of the actual situation of China's financial industry. The spirit of realism held by financially developed foreign countries in the application and development of securitization technology may be worth learning from. The specific Chinese model encompasses both the overall framework and specific details, which banks, asset management companies, and securities firms may need to gradually understand in their respective practices [6].

Li Guanxiong believes that the continuous improvement of the asset securitization pricing method can improve the pricing mechanism, and the improvement of the pricing mechanism can solve the current problem of insufficient liquidity and narrow investor group in China's asset securitization market, and China should further liberalize the types of underlying assets that can be securitized, guide the healthy development of the asset securitization market, eliminate artificial obstacles in the exchange and interbank market, build a unified trading market platform, make asset securitization products trade freely, and give full play to the value discovery function and risk pricing mechanism of the market. One can also utilize big data to create a dedicated database for each asset pool of asset securitization products, enabling big data processing in asset securitization. This not only streamlines the application of asset securitization pricing methods but also supplies strategic data and theoretical backing for future product development [7].

#### 4. Case analysis

Chi Junhui believes that asset securitization, like other financial instruments, is neutral, but only a tool, and there are problems with how to use it. The recent subprime mortgage turmoil in the United States is related to the large number of institutions holding mortgage-backed securities (MBS) and more complex structured financial products. The emergence of this crisis is not an inevitable product of asset securitization, nor is it a systemic risk in the asset securitization system, “but the result of the wrong or even malicious use of securitization as a financial instrument by lending institutions in the absence of supervision.” Of course, the outbreak of the subprime mortgage crisis in the United States and the global financial turmoil have had a negative impact on the rapidly developing asset securitization business and the financial derivatives market. However, a comprehensive analysis of this crisis shows that it can warn the construction of China's asset securitization system in the following aspects: it can improve the credibility of credit ratings, establish a comprehensive, truthful and objective information disclosure system for asset-backed securities, and also improve the risk and prevention of prepayment of loans, and the risk warning of investors [1].

Taking the Chongqing Yusui Expressway Closed Infrastructure Project of Guojin Railway Construction as an example, the financial risk disclosure and benefit analysis made by the project are briefly summarized.

The project carries several significant risks, including market risk, management risk, concentrated investment risk, fluctuation risk of fund asset value, net value change risk of the fund, liquidity risk, transaction risk associated with the overall fund structure, risk of the fund manager, financial adviser, custodian, special plan manager, special plan custodian, and other institutions not fulfilling their duties, risk of early termination of special purpose vehicles such as special plan, risk of external borrowing, risk of related party transactions and conflict of interest, risk of tax and policy adjustments, and risk of failure of offering, termination of listing risk, economic cycle risk, credit risk. Key market risks are policy risk, economic cycle risk, interest rate risk, credit risk, purchasing power risk, and reinvestment risk.

Table 1: Forecast consolidated income statement [8]

Project	2022	2023
1.Revenue	693,196,213.59	736,807,524.27
Operating income	693,196,213.59	736,807,524.27
2.Total cost of business	600,565,911.84	602,884,603.76
Cost of business	580,099,352.29	583,101,450.20
Taxes and surcharges	9,783,624.35	9,649,490.24
Selling expenses	-	-

Table 1: (continued).

Management expenses	996,748.20	720,000.00
R&D expenses	-	-
Finance expenses	-	385,800.30
Remuneration of the manager	9,224,940.00	8,597,964.78
Custodian expenses	461,247.00	429,898.24
Add: Other earnings	-	-
Fair value change gain	-	-
Credit impairment losses	-	-
3. Operating profit	92,630,301.75	133,922,920.51
Add: Non-operating income	-	-
Subtract: Non-operating expenses	-	-
4. Gross profit	92,630,301.75	133,922,920.51
Subtract: Income tax expense	20,317,617.23	27,253,761.27
5. Net profit	72,312.684.52	106,669,159.24
6. Total comprehensive income	72,312.684.52	106,669,159.24

The aforementioned cases demonstrate that as the asset-backed securities market has grown, China's financial regulatory authorities have consistently enhanced relevant policies, reinforced capital risk disclosure requirements for ABS projects, increased market transparency, and progressively intensified information disclosure for relevant projects. These measures enable investors to gain a clearer and more comprehensive understanding of project risks. Regarding the disclosure of ABS project information, there is variation in the adequacy of information provided. Some disclosures are relatively sufficient, while others are relatively insufficient. This discrepancy can impact investors' ability to assess project risks. Therefore, enterprises should enhance their disclosure practices, and the government should establish relevant regulations.

## 5. Conclusion

In general, with the gradual maturity of the domestic market economic system, some basic conditions for the implementation of asset securitization in China have been met. For example, a complete financial regulatory system has been established, a certain scale of asset securitization has been assured, commercial banks have a certain internal motivation to develop asset securitization, and the investment group in the capital market has been basically formed. Asset securitization is a product of the deepening of financial development, which objectively needs a series of mature basic conditions as support. Compared with developed market economy countries and regions, some of the necessary conditions for asset securitization are still relatively weak in China, and they need to be continuously improved in the development process of domestic asset securitization.

Upon reviewing the aforementioned research, this essay asserts that despite China's ABS financing model being implemented later than in other nations, it still possesses distinctive advantages. China has amassed significant financial capital as a result of the economic growth that followed the reform and opening up. Investors have also expanded in size and have a desire for the increase in value. The Chinese government consistently advocates for supply-side structural reforms and enhances financial innovation, which increases the likelihood of the ABS financing model capitalizing on its benefits in project financing. This would not only bolster economic development but also further advance the ABS finance model on a worldwide scale, providing funding options for diverse projects.

Although the ABS financing model offers numerous benefits, it also entails significant risks and problems. Variables like as volatility in financial markets and alterations in regulatory laws may have an influence on the ABS financing model. Hence, China must formulate appropriate policies by thoroughly taking into account its fundamental national circumstances while drawing lessons from successful overseas practices. Furthermore, it is necessary to implement a set of reforms, which involves the creation of relevant legislation and regulations, in order to guarantee the standardized and sound growth of asset securitization in China. Further comprehensive and meticulous research is required to fully comprehend the factors to be taken into account and the extent to which ABS is applicable in China.

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