

# *Credit Enhancement Research in Asset Securitization*

Jiabao Liao<sup>1,a,\*</sup>

<sup>1</sup>*School of Project Management, Wuhan polytechnic university, Wuhan, Hubei, 430023, China*  
*a. L1924968803@iCloud.com*

*\*corresponding author*

**Abstract:** Asset backed securitization is a financial technique that consolidates various assets, such as loans, collateral, and credit card receivables, into securities that can be traded. This process converts assets that were previously difficult to sell into easily tradable financial instruments. Credit enhancement plays a crucial role in the asset securitization process, aiming to raise the credit rating of securitized assets, mitigate investment risks, and attract a larger pool of investors. Hangcheng is an intellectual property service company situated in Hangzhou, Zhejiang Province. It specializes in offering consumers intellectual property services related to patents, trademarks, copyrights, and other related areas. Hangcheng intends to issue the initial phase of micro enterprise loan asset-backed securities (ABS) in 2024 to generate cash for the purpose of supporting the company's commercial growth. This paper will examine ways to improve credit through the method of literary analysis and take Hangcheng as a case study.

**Keywords:** credit asset backed securitization, project financing, Hangcheng

## **1. Introduction**

Due to the fast growth of the Chinese economy and the growing variety of social and financial requirements, Asset Backed Securities (ABS) have received attention and are being used as a creative financial tool in the Chinese market. Asset securitization is a process that transforms assets that are not easily sold into securities that can be traded. This allows organizations and projects to access a variety of financing options, which in turn helps to allocate resources more efficiently and increase the efficiency of the financial market. Nevertheless, when compared to industrialized nations, China's asset securitization market still exhibits numerous deficiencies in its development process, necessitating urgent research and enhancement.

ABS is a financial technique that transforms assets that are difficult to sell into securities that can be traded on the capital market. This process allows for asset financing and the spreading of risk. Asset securitization was first introduced in the United States during the 1970s and thereafter became widely adopted globally. The method of developing asset securitization ABS is as follows. The United States developed mortgage-backed securities (MBS) in the 1970s to address liquidity challenges encountered by savings banks, thus initiating the practice of asset securitization. During the 1980s and 1990s, the practice of asset securitization grew to include other types of assets, such as business loans, accounts receivable, and vehicle loans. This led to an increase in the size and diversity of the market. Since the onset of the 21st century, asset securitization is extensively utilized worldwide and has emerged as a crucial element of financial markets. Every nation introduces a range

of asset-backed securities products that are tailored to its specific financial system and market requirements [1].

In this paper, the author will employ methods of literary analysis and case study to improve credit and utilize Hangcheng as a specific case study. The purpose of this paper is to provide strategies for improving the creditworthiness of asset-backed securities (ABS). The aim is to mitigate risks associated with project investment and increase the appeal of ABS as a means of financing projects.

## **2. Credit enhancement method and structure, influencing factors and risk assessment**

### **2.1. Credit enhancement method and structure**

The primary focus would be on fixed income, with floating income being of secondary importance. Priority refers to securities that have lower risk but also lower returns. These are suitable for investors who prefer fixed income, have a low tolerance for risk, and expect a guaranteed rate of return. On the other hand, the secondary category is for investors who aim to increase their investment capital through financing and seek higher returns, despite the higher risk involved. Practically, the often employed strategies of escalation are typically classified into two types. One form of internal escalation is through priority/secondary hierarchical institutions, excess mortgage, excess spread, cash reserve account, cash flow payment mechanism, and credit trigger mechanism. The external escalation mode encompasses several aspects such as payment promise, guarantee, insurance, and liquidity support. Subprime securities aim to shift credit risk to investors through asset securitization. Subprime securities were primarily issued to entice additional investors to purchase high-risk bonds, while simultaneously granting lenders greater access to financing. In the secondary securities market, institutional investors, such as pension funds and hedge funds, frequently participate with the aim of achieving substantial profits [2].

In ABS products, the cash flow distribution sequence typically follows the order of different taxes, priority file interest, second-best file interest, priority file principal, second-best file principal, and the remaining portion consists of the principal and income of the secondary file. When there is a default loss in the asset pool, it is initially absorbed by the secondary, followed by the sub-optimal, and ultimately by the priority. By utilizing the hierarchical structure mentioned above, priority has gained credit support from both sub-optimal and sub-optimal sources, which facilitates the attainment of a higher credit rating.

### **2.2. Influencing factors and risk assessment of credit enhancement**

Credit rating agencies assess the creditworthiness of the assets owned by the original owners, the structure of the products, cash flow analysis, and stress testing. They do this by collecting data, conducting due diligence, analyzing credit, disclosing information, and tracking progress. Their main purpose is to provide investors with a valuable reference, safeguard their rights and interests, and facilitate credit transparency.

An external guarantee agency is an entity that provides external credit enhancement by ensuring that securitized assets are paid in full and on time. This guarantee is often in the form of an irrevocable joint and several liability guarantee. The institution serves as the registration and settlement entity for asset securitization. Its responsibilities include registering, safeguarding, transferring, and distributing income from asset securitization [3].

The fundamental component of asset securitization is an asset pool, which refers to a collection of assets grouped together. While the quality of individual assets forms the foundation for the overall quality of the asset pool, the quality of the entire asset pool cannot be determined solely by adding up the quality of individual assets. A single non-performing asset may nevertheless meet the standards of asset securitization. One can do an analysis and evaluation of each individual loan, forecast the rate

and duration of recovery, and thereafter adjust the value of the assets based on the projected recovery rate. Loans that have been discounted are grouped together based on their recovery period to create an asset pool. The value of the asset pool and the recovery period are then established in relation to each other. The static pool is characterized by the absence of a circular purchasing arrangement, and the composition of the entire asset pool is predetermined. The dynamic pool will acquire assets and incorporate them into the asset pool in accordance with applicable criteria during the lifespan of the asset-backed securities, in order to maintain a consistent cash flow for the asset pool.

### **3. Shortcomings and solutions in the development of Chinese asset backed securitization**

The credit rating system and risk disclosure process are flawed. The credit rating system and risk disclosure mechanism in the asset-backed securities market are currently incomplete, potentially undermining investor trust and market stability. Enhancing the credit rating system and risk disclosure mechanism will enhance market transparency and elevate the degree of risk management. Academics Wang Jianfeng and Xu Wanxiao have discovered that linked guarantee type firms (ABS) have a higher default risk, which is unrelated to the principle of isolating subject credit and asset credit [4].

Hong Xiangjun and Gong Lei propose that regulatory authorities can promote the robust and enduring growth of China's enterprise asset securitization market by effectively limiting related party credit enhancement or enhancing supervision[5].

According to scholars Li Qiang and Li Yang, the intellectual property securitization model in Shenzhen can be improved by enhancing the role of professional institutions, diversifying intellectual property financing options, converting single debt financing into a combination of equity and debt financing, improving mechanisms for sharing and compensating social risks, and continuously optimizing intellectual property valuation and disposal processes. These measures will increase the willingness of social capital to participate in intellectual property financing, facilitate the integration of funds and assets, and ultimately address the fundamental challenge of limited access to intellectual property financing [6].

The author posits that enhancing the risk management system, encompassing asset screening, risk assessment, monitoring, and early warning, can facilitate the establishment of a comprehensive risk management system. It necessary to implement rigorous control measures over the fundamental assets of supply chain finance asset-backed securities (ABS) to guarantee the quality of assets and enhance the transparency of information disclosure; Enhance the level of information disclosure for supply chain financing ABS, augment transparency, and empower investors to comprehensively comprehend product risks. The disclosure material encompasses comprehensive information regarding the underlying assets, transaction structure, credit rating, and risk disclosure to effectively address the issue at hand.

## **4. Case Analysis**

### **4.1. The basic information and analysis of the case**

Hangcheng is a company based in Hangzhou, Zhejiang Province, that specializes in providing intellectual property services. Their concentration is on assisting customers with patents, trademarks, copyrights, and other aspects of intellectual property. Hangcheng intends to issue the initial phase of Micro Enterprise Loan Asset Backed Securities (ABS) in 2024, with the aim of generating cash to facilitate the company's business expansion [7].

China Bond Credit states that the small enterprise loans issued by Hangzhou Bank Co., Ltd. and pooled as securities in this period have a low number of pooled loans, a high concentration of borrowers, a high regional concentration risk, and a high industry concentration risk. Additionally,

the weighted residual maturity of the underlying assets is relatively short, but overall, the credit quality of the underlying assets is good. Priority A securities can receive credit enhancement equivalent to 22.62% of the loan total of the asset pool, which is given by Priority B, Priority C, and Subordinate securities. Priority B securities are eligible to receive credit support amounting to 17.52% of the loan value of the asset pool. This credit support is given by Priority C and Subordinate securities. Subordinate securities can offer credit support equivalent to 9.51% of the asset pool loan balance to Priority C securities. Regarding the trading structure, the institutions involved in this securities period have the capacity to function as service institutions, and the likelihood of offsetting and blending risks is quite little [8]. According to the rating model calculations, China Bond Credit Rating has decided that the credit rating of the asset-backed securities for micro enterprise loans in this period is: Priority A-grade securities with a credit rating of AAAsf. Priority B securities possess a credit rating of AAAsf, whilst Priority C securities possess a credit rating of BBB+sf. Secondary securities lack a rating.

#### 4.2. Deficiencies in development

Initially, it should be noted that the laws, regulations, and regulatory system are not flawless. China's asset securitization market rules, regulations, and regulatory policies are still in need of improvement when compared to the international advanced level. Furthermore, the product types and structure are rather simplistic [9-10]. The market is primarily controlled by credit asset-backed securities (CLO) and corporate asset-backed securities (ABCP), which exhibit a deficiency in terms of innovation and diversity. Furthermore, asset-backed securities, being a nascent form of financing, currently have limited recognition and adoption. The credit rating system and risk disclosure method are inadequate, which might potentially undermine investor trust and market stability. Furthermore, it is important to note that the quality of the underlying assets in particular products may vary, which could potentially expose investors to certain risks [11-13]. The current market liquidity is somewhat insufficient, hence constraining the extent and comprehensiveness of market growth. Furthermore, in certain domains, such as small and medium-sized enterprise finance, the expense associated with funding asset-backed securities is comparatively elevated. Ambiguous tax policy may result in investors encountering tax ambiguity during the investment process. Furthermore, a scarcity of skilled individuals hampers the pace and extent of market growth. There is still room for improvement in terms of the level of integration with the world market in product innovation, trade mechanism, regulatory system, and other areas [14].

#### 4.3. Solutions

Firstly, raise the legislation, rules, and regulatory framework: Bolster the development of laws, regulations, and policies governing the asset-backed securities market, and enhance the visibility and uniformity of the market. Furthermore, it is advised to foster product innovation and variety in order to stimulate the creation of novel asset-backed securities offerings that cater to the requirements of various investor profiles and enhance market engagement.

Thirdly, increase investor education and awareness: bolster investor education, enhance investor awareness and acceptance of asset-backed securities, and foster market engagement. Furthermore, improve the credit rating system and risk disclosure mechanism by bolstering the development of credit rating agencies and improving the effectiveness of risk disclosure mechanisms [15-16]. This will lead to an elevated standard of risk management in the market. In addition, it is important to focus on the quality of the underlying assets and risk management. This involves closely monitoring the quality of the underlying assets, strengthening risk management measures, and ensuring the stable functioning of the asset-backed securities market. In addition, enhance market liquidity by

streamlining the trading process and upgrading the market infrastructure of the asset-backed securities market. Furthermore, develop a rational tax policy: Elucidate the tax policy pertaining to the asset-backed securities market, alleviate the tax burden on investors, and enhance the market's allure; Enhance the training and onboarding of asset-backed securities experts to enhance the overall competitiveness of the industry. Lastly, enhance the integration with the global market by using sophisticated international expertise, fostering the integration of the asset-backed securities market with the international market, and enhancing market accessibility [17].

## 5. Conclusion

This paper examines the challenges that arise from the credit improvement of asset securitization and proposes solutions through a case study. The paper delves into a comprehensive examination of the technique and framework of credit enhancement, as well as the elements that influence it and the analysis of associated risks. Furthermore, the author identifies numerous deficiencies in China's asset-backed bank securities and puts forward potential remedies. In conclusion, the author examines a real-life example to explore methods for improving asset-backed securities through credit improvement. Additionally, the author evaluates the deficiencies in credit collection and proposes potential solutions.

Nevertheless, the paper still has several limitations. Specifically, this paper exclusively examines situations within China and all references cited are sourced from China. Hence, this study solely focuses on the implementation of asset-backed securities in China, without addressing the global drawbacks and limitations associated with asset-backed securities. Subsequently, the author will scrutinize instances of foreign asset-backed bank securities and peruse scholarly articles and materials pertaining to foreign asset-held bank securities.

The author expresses optimism that the identified limitations can be effectively addressed in the future, allowing the full potential of ABS to be realized, free from any external or internal constraints. The author anticipates that ABS will be widely implemented in several projects and exert a significant impact on finance in the foreseeable future.

## References

- [1] Zhao Yu. *ABS default risk and Countermeasures* [J]. *Securities Market Review*, 2019, (06): 1.
- [2] Ding Sheng, Guo Jiequn. *Preventing ABS risk of supply chain finance* [J]. *China Finance*, 2020, (01): 75-76.
- [3] Zhang Li-Guang, Guo Yan. *The internal logic, realistic dilemma and development countermeasures of financial asset securitization in China* [J]. *Journal of Jinan University (Social Science Edition)*, 2019, 29(03): 75-85+159.
- [4] Wang Jianfeng, Xu Wanxiao. "Departure from the source" in financial innovation: micro evidence from ABS of related guarantee enterprises [J]. *Study of finance and economics*, 2023, 49 (05) : 4 to 18 + 48. DOI: 10.16538 / j.carol carroll nki jfe. 20230221.102.
- [5] Hong Xiangjun, Gong Lei. *Related party credit enhancement and credit risk premium in asset securitization: A statistical analysis based on underlying asset risk* [J]. *Statistical research*, 2021, 38 (08) : 16-29. DOI: 10.19343 / j.carol carroll nki. 11-1302 / c. 2021.08.002.
- [6] Li Qiang, Li Yang. *Research on intellectual property financing -- from the perspective of Shenzhen Zhichuang ABS* [J]. *Social Scientist*, 2023, (08): 91-96.
- [7] Liu Xiaojia, Chen Yuhui. *Preventing ABS risk of supply chain finance* [J]. *China Finance*, 2019, (23): 39-40.
- [8] Wang Jianfeng, Xu Wanxiao. *Underlying asset quality, true sale terms and credit ABS direct financial development* [J]. *Journal of China university of geosciences (social science edition)*, 2023, 23 (01) : 132-146. The DOI: 10.16493 / j.carol carroll nki. 42-1627 / c. 20221227.002.
- [9] Kang Jian, Wan Jinglong, Zhang Chao. *Analysis of credit card asset Securitization market and secondary investment* [J]. *New Finance*, 2020, (12): 38-42.
- [10] Zhang Chao, Wan Jinglong, Kang Jian. *Credit card bad ABS industry characteristics and secondary investment strategy* [J]. *New Finance*, 2020, (06): 58-63.

- [11] Political Commissar Lu, Fang Qi, Qian Lihua. System to promote the development of green credit asset securitization research [J]. *Journal of xi 'an jiaotong university (social science edition)*, 2020, 40 (3) : 1-6. DOI: 10.15896/j.xjtuskxb. 202003001.
- [12] Cheng Xuejun, Wu Min, Ma Nan. Reflection on the development of Internet consumer finance asset Securitization and regulatory suggestions [J]. *Consumer Economics*, 2019,36(02):10-19. (in Chinese)
- [13] Gao Zhennan, Pan Shuiyang. The impact of asset securitization of PPP projects on macro-economy [J]. *Lanzhou Academic Journal*,2020,(02):110-120.
- [14] Ding Sheng, Guo Jiequn. Preventing ABS risk of supply chain finance [J]. *China Finance*,2020,(01):75-76.
- [15] Hong Xiangjun, Gong Lei. Will investors be wary of danger? Research on credit rating based on asset securitization [J]. *Journal of Investment Research*,2019,38(12):114-132.
- [16] Liu Xiaojia, Chen Yuhui. Preventing ABS risk of supply chain finance [J]. *China Finance*,2019,(23):39-40.
- [17] Li Jie, Yin Peipei, Qiu Xueling. Bank asset securitization in our country there are regulatory capital arbitrage? [J]. *Journal of financial regulation research*, 2019, (11) : 36-49. DOI: 10.13490/j.carol carroll nki FRR. 2019.11.003.