

# **Analysis on the Supply Chain Financial Business of Commercial Banks: a Case Study of Bank of China**

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**Abstract:** As one of the five state-owned banks, the Bank of China clearly recognizes the importance of developing supply chain finance business, and focuses on exploration and innovation in the field of supply chain finance business. Taking Bank of China as an example, this paper analyzes the main mode, development status and existing problems of the supply chain finance business of the Bank of China, and puts forward suggestions to deal with the development of the supply chain finance business of the Bank of my country, hoping to contribute to the development of the supply chain finance of commercial banks in China.

## **1. Introduction**

Compared with the core enterprises with strong competitiveness and large scale, most of the upstream and downstream supporting enterprises are small and medium-sized enterprises, which are difficult to obtain financing from banks. In order to solve the financing difficulties of small and medium-sized enterprises, various domestic commercial banks follow the trend and actively carry out supply chain financial services. This paper analyzes the supply chain financial model and existing problems of the Bank of China (hereinafter referred to as BOC), and puts forward suggestions for its development, so as to provide directions for the development of this business for my country's commercial banks.

## **2. Analysis on Supply Chain Financial Model of Bank of China**

In more than ten years of business development, BOC, based on the credit of core enterprises and according to the trade background, has split the credit line of supply chain financial products for its upstream and downstream customers, and successively launched the main supply chain financial products such as “Rongyida”, “Ronghuoda” and “Xiaoyida”.

### **2.1 Accounts Receivable Financing Mode - Rongyida**

**Product definition:** Under the circumstance that the transaction background is not disputed and the contract is guaranteed to be performed when it expires, the BOC on the premise of fully takes up the buyer's credit, provide receivables financing.

**Product Features:** The core enterprise of upstream suppliers, restricted by factors such as scale, are unable to get credit, but their financing needs is very huge. Through “Rongyida” products, on the one hand, the core enterprise can use its idle credit resources to expand its purchasing capacity and obtain more high-quality upstream products, and on the other hand, its suppliers can also obtain funds for production and operation.

### **2.2 Accounts Payable Financing Mode - Xiaoyida**

**Product definition:** In transactions with cash on delivery or credit sales as the settlement method, the core enterprises (sellers) in the supply chain provide credit support to their recognized downstream enterprises (buyers) in order to expand sales and accelerate the return of funds. On the premise that the seller agrees to assume the repayment responsibility if the buyer fails to repay the

financing interest on time, Bank of China fully occupies the seller's credit line to provide financing for the buyers.

Product features: It helps the seller as the core business to expand sales, reduce accounts receivable, and optimize financial statements. By bundling the responsibilities of core enterprises, it provides financing convenience to downstream buyers and relieves the financial pressure of small and medium-sized enterprises.

### **2.3 Inventory Pledge Financing Model - Rongyhuoda**

Product definition: Under trade settlement business, it handles trade financing business for customers by virtue of goods or rights acceptable to BOC as pledge.

Product features: On the one hand, it helps core enterprises to maintain customers and improve the overall competitiveness of the supply chain. On the other hand, while revitalizing the customer's goods, it reduces the occupation of other collaterals.

## **3. Development Status of Bank of China's Supply Chain Finance Business**

In 2021, the Bank of China provided 2.16 trillion yuan of funds to enterprises at the core of the supply chain through a combination of corporate credit, trade financing, bills, bonds and other financial instruments. Chinese banks are gradually expanding their lending in response to changing economic conditions and policy changes. The credit scale increased by 1.44 times year-on-year from RMB 10,644.03 billion in 2017 to RMB 15,322.48 billion in 2021 (see Table 1). Between 2017 and 2021. The non-performing loan ratio fluctuates around 1.40%, which indicates that Chinese banks have not made corresponding improvement in risk prevention measures for the whole credit business while expanding the loan scale.

Table 1 Loan Amount and Npl Ratio of Bank of China from 2016 to 2021

years	Net loans and advances (100 million yuan)	NPL ratio (%)
2017	106,443.0	1.45
2018	115,157.6	1.42
2019	127,434.3	1.37
2020	138,483.0	1.46
2021	153,224.8	1.33

Note: Excerpted from Bank of China 2021 Annual Report

The supply chain financial products of BOC tend to traditional credit business, and the main customers are large enterprises. In recent years, the size of small and medium-sized enterprises has gradually increased, and the demand for credit is also increasing. The traditional credit model is not suitable for small and medium-sized enterprises. Therefore, the BOC is facing the problem of product innovation. While meeting market demand and better serving customers, the BOC needs to achieve business transformation.

## **4. Problems in BOC's Supply Chain Financial Business**

### **4.1 Serious Product Homogeneity and Insufficient Innovation**

The BOC still tends to use core enterprises as the main customers when developing supply chain finance business, which may lead to the fact that the advantages of supply chain finance cannot be fully reflected, and there is no essential difference from traditional credit business. In an environment where commercial banks are seeking transformation and vigorously developing supply chain finance, Bank of China should strive to innovate and reform in order to meet the differentiated requirements of different enterprises.

### **4.2 Difficulty in Determining the Authenticity of the Background of Accounts Receivable Transactions**

Different from traditional credit business, supply chain finance is characterized by self compensation. The supply chain finance business of Bank of China is based on the real transaction

of the whole supply chain. If the transaction on the supply chain is not real, Bank of China will face great risks. Therefore, it is particularly important to be able to judge the authenticity of the transaction background of accounts receivable. However, due to the fact that banks cannot actually participate in the operation and management of the supply chain, they can only rely on core enterprises and third-party logistics to obtain information. Asymmetric information between the financing parties may lead to inaccurate survey results of Bank of China, thus bearing huge risks.

#### **4.3 The Technical Level is Difficult to Meet the Business Requirements**

Supply chain finance platform carries a large amount of information such as transaction information and credit rating of all parties, so the introduction of technology platform is of great significance to the development of supply chain financing. In supply chain financial services, international banks use advanced network technology to establish a global supply chain financial business network. Through rational use of Internet technology, the cost is saved and the degree of automation is high. In Chinese commercial banks, the application of science and technology and information technology is still relatively backward. By using advanced information technology, banks can obtain accurate information while solving the problem of high operating costs. Therefore, the Bank of China should increase the application of scientific and technological elements and make full use of advanced means such as big data analysis.

#### **4.4 Inaccurate Credit Rating**

At present, the credit rating standard of commercial banks still adopts the “Guiding Opinions on the Credit Rating Management of the People's Bank of China” promulgated by the People's Bank of China in 2006. However, this standard still tends to the relatively large enterprises, and there will be some defects in the application of this standard in the credit rating of small and medium-sized enterprises. Secondly, the general rating model of commercial banks focuses on evaluating the past financial indicators of enterprises, such as inventory turnover ratio, asset-liability ratio, profit rate, etc. Moreover, the verification of access qualification is too single, which leads to the fact that enterprises are likely to be included in the credit scope of commercial banks due to the early performance indicators when major changes occur in the current period.

#### **4.5 Lengthy Credit Process and Low Efficiency**

The credit approval stage of BOC generally goes through five steps. After the customer information is certified, the business manager imports the information into the credit rating model in the banking system for customer rating review. Then, it will be submitted to the risk management department for approval. The risk management department is primarily responsible for reviewing customer credit risk, primary or secondary sources of repayment. After the review, it will be handed over to the transaction banking department for approval. The financial department of the branch will collect the provincial bank for final review. Then, the provincial bank conduct voting to summarize the results. Under such a multi-link and multi-personnel approval process, superiors may interfere with subordinates which will lead to compromise and relaxation of credit standards.

### **5. Suggestions on Dealing with the Problems of Supply Chain Financial Business**

#### **5.1 Constructing the Bank of China's Supply Chain Financial Product Innovation System**

The launch of differentiated products cannot be separated from the support of innovation. The BOC can build the innovation system of supply chain financial products through the following three paths. First of all, banks can study local laws and regulations in depth to adapt the local conditions, and find innovation space. Secondly, banks can collect feedback from customers who have already granted credit and improve existing products for different customer groups. Finally, in order to explore the direction of product innovation, banks can refer to and analyze the new products launched by other commercial banks.

## **5.2 Improve the Authenticity Review Process of Supply Chain Finance and Trade Background**

According to the principle of “substance is more important than form” in connected transactions, there is doubt about the authenticity of the trade background of the transactions with implicit correlation. When conducting a contract review, it is necessary to investigate the parties to the transaction, the goods, the invoice amount, the duration of the accounts receivable, the restrictive terms and other information. Due to the low cost of contract information fraud, only reviewing contract information can not guarantee the authenticity of trade background, so the review process includes but is not limited to contract review. In addition, the authenticity check of supply chain finance and trade background runs through the whole process. The Bank of China should strengthen the management and communication with the third party institutions in combination with risk assessment, risk control and other links.

## **5.3 Introduce Technical Talents and Build a Supply Chain Financial Technology Platform**

Supply chain finance business involves the whole process before, during and after loan, covering a large amount of data and information. Building supply chain finance technology platform is the only way for all commercial banks to carry out supply chain finance business. With the improvement of the technological content of supply chain financial products, including financial management, insurance and securities, such as the introduction of big data analysis system, customer information and product information analysis, banks have increased the demand for relevant technical personnel. In addition, the Bank of China can also introduce an automated office system to improve the precision of products and greatly improve the office efficiency while increasing profits.

## **5.4 Constructing Bank of China's Dynamic Credit Rating Standard**

The BOC should classify enterprises in different industries and sizes and set different evaluation indexes. They can set different standard values for different evaluation indexes according to the characteristics of enterprises to determine the operation status and scale of enterprises. It will break the tradition of rating credit based on financial indicators. Banks can also incorporate non-financial factors such as business types, repayment sources, historical transaction sources and industry risks into the evaluation scope to establish dynamic credit rating standards for BOC.

## **5.5 Optimize Credit Approval Mode**

In order to change the existing step by step approval and credit granting mode which has long links, low efficiency and superior intervention, the BOC can conduct research in advance on enterprises that will be in key industries, key regions and first-time applicants for credit. It is also necessary to establish a database sharing center, which can reduce the approval process of enterprises with good credit records and avoid duplication of work. The BOC may implement the group approval mode instead of the level approval mode. The group approval mode means that the bank allocates personnel from relevant departments to establish a credit approval team, and appoints one member of the team as the leader. In addition, according to the nature of the project, the bank implements the job rotation system to avoid excessive centralization caused by fixed leaders.

## **6. Conclusion**

The supply chain financial is different from the traditional credit business. Its development is an inevitable requirement of the overall financial environment at this stage, and is the only way for BOC to seize market share and promote the development of the enterprise. Small and medium-sized enterprises will become one of the main forces of China's economic transformation and development in the future. The BOC should make the best of its globalization, comprehensiveness and specialization to promote the digital, platform based, scenario based and intelligent development of supply chain finance, and become a world-class supply chain financial service bank which supply provide supply chain financial service.

## References

- [1] Qing Pan. "Research on credit risk management of commercial bank supply chain finance". Business News, No.18, pp.79-82, 2022.
- [2] Jingyan Xu. "Research on the Financing Model of Commercial Bank Supply Chain - Taking China CITIC Bank, Ping An Bank, and Industrial and Commercial Bank of China as Examples". Logistics Engineering and Management, Vol.44, No.7, pp.140-143, 2022.
- [3] Xiaoming Li. "Research on Financial Risk Management of Commercial Bank Supply Chain". Market Weekly, Vol.34, No.04, pp.130-132, 2021.
- [4] Haidan Yin. "Research on the Financing Model of Supply Chain Finance". Times Finance, No.10, pp.23-25, 2020.