# SUPPLY CHAIN FINANCE EXPLORATION ИССЛЕДОВАНИЕ ФИНАНСИРОВАНИЯ ЦЕПОЧКИ ПОСТАВОК

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Abstract. Supply chain finance refers to the use of financial tools and services to support transactions and the flow of funds at various stages of the supply chain, thereby improving supply chain efficiency and reducing costs. This article analyzes the value, main forms, challenges, and risks of supply chain finance, and finally summarizes the future development trends. Key words: supply chain finance; Financing; Informatization

#### Introduction

Supply chain finance refers to the use of financial tools and services to support the transactions and flow of funds at various stages of the supply chain, thereby improving supply chain efficiency and reducing costs.

With the development of digital construction in recent years, the online transaction data of enterprises has become increasingly high. Supply chain finance has evolved from phase 1.0 to phase  $4.0^{[1]}$ .

The credit granting main body at stage 1.0 is the core enterprise, and the bank only provides funds, without participating in any link of the supply chain. Trade-related materials are provided by the core enterprise, and the financing funds will be used for transactions between small and medium-sized enterprises and the core enterprise.

The 2.0 phase conducts online data collection based on the 1.0 foundation, while shifting the credit subject from core enterprises to upstream and downstream enterprises, reducing the risk of single credit from capital providers.

The 3.0 phase is characterized by the supply chain financial platform connecting capital providers and core enterprises (i.e., platform-based), where there can be multiple core enterprises and multiple banks on the platform, breaking through the limitations of a single supply chain.

The 4.0 phase of the digital intelligent industry chain will rely on digital technology to develop into an online, intelligent financial industry chain, helping commercial banks solve the fundamental issue of transaction credibility, breaking the barriers of information asymmetry and physical geographical boundaries.

### The main part

Accounts Receivable Financing: there are two modes of accounts receivable financing. The first mode is forward factoring, where the upstream enterprise presents accounts receivable to the funder. At this time, the bank's credit subject is the upstream enterprise, and financing is based on the credit of the upstream enterprise. Generally, this mode involves recourse factoring<sup>[3]</sup>; if the downstream enterprise fails to repay, the upstream enterprise will make the repayment, thus reducing the risk for the funder.

The second type is reverse factoring, which is based on the credit of the core enterprise. Suppliers of the core enterprise finance their accounts receivable confirmed by the core enterprise. In this case, the credit subject is the core enterprise, and the repayment is also carried out by the core enterprise. In this model, suppliers do not bear any debt risk; if the core enterprise defaults, it has nothing to do with the suppliers. At the same time, a digital debt certificate product has been developed based on the reverse factoring model. Accounts receivable are converted into certificates, which can be split, transferred, and financed.

Warehouse Receipt Financing: The warehouse receipt pledge financing model is a financing method that uses warehouse receipts as collateral, usually involving storage companies, financial institutions, and borrowing enterprises. the borrowing enterprise mortgages the warehouse receipts to financial institutions to obtain corresponding financing for operating capital turnover. At the same time, financial institutions can earn income by charging the borrowing enterprise certain interest and fees.

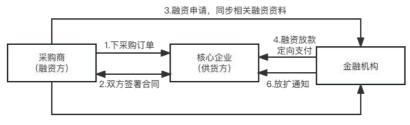
The risk of the warehouse receipt pledge financing model lies in the authenticity and completeness of the warehouse receipt; therefore, financial institutions need to conduct strict verification of warehouse receipts and supervision of their storage.

Advance Payment Financing: prepayment financing is usually based on

the business of core enterprises, which are manufacturing enterprises. Downstream purchasers place orders with core enterprises and need to prepay the full amount of the orders. After the core enterprises receive the payment, they proceed with production.

At this time, if there is a lack of funds for procurement, orders cannot be placed. Based on this, financial institutions intervene in the supply chain process and provide advance payment financing products. The purchaser only needs to pay a certain percentage of the deposit, and the remaining funds are advanced by the financial institution.

If the downstream purchaser breaches the contract, the core shall assist financial institutions in handling the goods. After the disposal of the goods is completed, the funds will be used to repay the financial institutions<sup>[2]</sup>.



5.提货申请、还款

Pic.1. - Prepayment financing transaction structure (may vary according to the requirements of financial institutions)

The prepaid financing model is mainly focused on manufacturing enterprises, with financial institutions already involved in the supply chain. Core enterprises assist financial institutions in completing the entire financing process<sup>[4]</sup>.

Challenges and risks of supply chain finance:

As enterprises' informatization capabilities continue to improve, technologies such as artificial intelligence, blockchain, and the Internet of Things are adopted. The financing costs and supervision links of supply chain finance will be reduced accordingly. Financial institutions are able to collect more data for cross-validation. Subject credit, data credit, and physical credit can be supervised throughout the entire process. Ultimately, the efficiency and security of the entire supply chain finance will be improved, and financing interest rates will be further reduced.

In recent years, the national level has introduced multiple policies to support the development of supply chain finance<sup>[5]</sup>. The introduction of these policies can encourage financial institutions to increase their

investment and innovation in the supply chain finance sector, allowing the services of supply chain finance to cover more small and micro enterprises. At the same time, the support from policies can also promote the sustainable development of supply chain finance.

Supply chain finance heavily relies on core enterprises. If core enterprises face financial risks, financial institutions will be dragged into the trouble. Subsequently, financial institutions should reduce their dependence on core enterprises and also need to verify the authenticity of the data provided by core enterprises. This reduces the risk of fully trusting core enterprises in establishing supply chain finance models.

#### Conclusion

With the continuous growth of global trade, cross-border supply chain finance cooperation will become an important trend in the future. Financial institutions can leverage blockchain technology to break down information silos in international trade, achieving cross-border capital flow and risk management. At the same time, cross-border supply chain finance cooperation also requires the support and collaboration of governments, establishing cross-border regulatory mechanisms to promote trade facilitation and financial innovation.

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Представлено 05.11.2024