Research on the supply chain financing service of commercial banks based on core enterprises

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Abstract

The supply chain financing service reduces the financing cost for small and medium-sized enterprises in the supply chain. The supply chain financing enables the core enterprises to obtain the support of operating working capital fund, stabilize the supply chain system, and improve the operation quality of the supply chain. This paper applies the principle of supply chain. Firstly, the problem of the supply chain financial service is analyzed. Secondly, based on the analysis of the demand of the supply chain financing, the suitable financing products are matched for the upstream and downstream enterprises of the supply chain. Finally, taking the SQ group as an example, the supply chain financing service scheme is designed based on the analysis of the characteristics of the demand for funds. This paper holds that the commercial banks should do these four aspects in providing supply chain financing, including demand analysis, matching of suitable products, coordination of the four party relations and strengthening the risk management and control work.

Keywords

Supply chain financing service; Financing products matching; Order financing; Commodity financing.

1. Introduction

As the main body of the financial market, modern commercial bank faces the adverse business situation, such as the liberalization of interest rate, the acceleration of the financial disintermediation, the penetration of the Internet Financial, the tighter regulatory capital. The space of traditional credit business has been gradually compressed and the market position is challenged. Compared with the small and medium commercial banks, the state-owned commercial banks have a gap in supply chain financing, small and medium enterprises' financial services and so on. In the process of development and transformation, it has been in an unfavorable market position.

The fierce competition between commercial banks has promoted the development and perfection of the supply chain management in the core enterprises. The number of high-quality customers in the financial market that can bring the profits of the bank is relatively limited and is constantly scramble for by other financial institutions. It is becoming more and more difficult to expand customers, and supply chain financing has come into being. Supply chain financing business solves the financing difficulties of supply chain upstream and downstream enterprises, and strengthens the linkage between banks and enterprises, achieving a new win-win situation of cooperation between commercial banks and supply chain enterprises. Therefore, studying the supply chain financing services of large commercial banks will effectively solve the financing difficulties of the upstream and downstream businesses of the supply chain, help SMEs break the business dilemma and enhance the competitiveness of state-owned commercial banks.

2. Literature review

From a theoretical point of view, Anthony (2000) defined and systematically combed supply chain financing services. He proposed a supply chain financing model for accounts receivable and inventory financing, which provides a basis for follow-up research [1]. Allen (2004) proposes that the framework of enterprise supply chain financing is "financial structure - government policy - Loan technology" [2]. Michael (2008) defines supply chain financing, he believes that supply chain financing can reduce the risk of financing through effective information delivery, and this process is an effective collection of funds [3]. In China, Ren (1998) introduced the pledge of movable property into the guarantee financing service of the bank, and defined the concept of material bank [4]. Li Xin (2016) believes that supply chain financing is the upgrading and refinement of the traditional commercial banks' liquidity loans [5]. Yao (2017) thinks that supply chain financial service is a business mode that banks take the core enterprises as the leading factors and provide customized financial products and services to the members of the supply chain through the overall analysis of the supply chain situation [6].

Gerard (1999) believes that only sellers and suppliers will work together to improve the supply chain. In this way, the purpose of reducing the overall cost of the supply chain will be achieved [7]. Hartley (2000) thinks that all the relevant enterprises in the supply chain, such as core enterprises and financial institutions, should share the order information at the database level so that the banks can provide financing to enable the retailers to complete the advance purchase smoothly [8]. Leon (2015) suggests that suppliers can help suppliers reduce credit risks and improve their cash forecast during sales transactions through asset-backed securities, accounts receivable securitization, factoring and other mechanisms to carry out accounts receivable financing [9]. In China, Lu (2016) proposed the following financing models: prepaid financing, accounts receivable financing, private equity fund financing and financing leasing company financing [10]. Gu (2017) proposed that Guarantee Corporation became the core of its subsidiary companies, the Guarantee Corporation has realized two-way information flow with the whole industrial chain through the bridge relationship with the core enterprise [11].

Stemmler (2003) believes that in the chain of supply chain financing, high degree of dependence on core enterprise can lead to strong risks [12]. Takano (2005) uses the CVAR method to calculate the risk of supply chain financing, and provides a new way of thinking for the risk assessment of supply chain. In China, Li (2014) believes that in order to reduce the risk in the supply chain financing process, commercial banks should establish interbank financing enterprise database and professional supply chain financing platform, strengthen the cooperation with other enterprises and investigate the cooperation-authenticity of the enterprises [13]. Liu (2016) believes that the main factors that influence the supply chain financing risk for small and medium-sized enterprises are the debt-paying ability of small and medium-sized enterprises, the credit level of core enterprises and Cooperation ability of both enterprises [14].

To sum up, domestic and foreign scholars' research on supply chain financing mainly focuses on three aspects: the connotation and related concepts of supply chain financing, the operation mode of supply chain financing, and the risk management of supply chain financing. Research on the core enterprise supply chain financing service scheme based on the demand analysis of commercial bank supply chain financing is relatively few.

3. Common problems in the supply chain financing business of commercial banks

Bank and supply chain enterprises are closely related with supply chain financing. Supply chain financing services make commercial banks not only a provider of funds, but also an Omni-directional co-operator. The bank should assess the development of the enterprise from a new height and the overall industry chain, which has formed a new challenge to the bank.However, due to the late start of supply chain finance in China's commercial banks, there are many problems, such as the unclear demand for upstream and downstream demand, the unreasonable matching of upstream and downstream products, the incompatibility of four party interests and the blind spots in risk control are common.

3.1 Research on demand of upstream and downstream is not clear.

In the process of providing supply chain financing services, banks often encounter incomplete information on customer financial services. This phenomenon is mainly caused by poor information communication. The supply chain has a large number of customers in the upstream and downstream enterprises, and the distribution area is wide. Only by the manpower and material resources of one branch cannot understand the needs of many customers.

3.2 Matching between the upstream and downstream products is not reasonable.

During the development of supply chain financing business, there is a problem of unreasonable product matching, which is mainly reflected in many aspects such as financing varieties, duration and amount. This phenomenon of short loan is quiet common. The main reason for this problem is that the bank does not understand the business model and the characteristics of the settlement.

3.3 Disharmony between the interests of the four parties.

Commercial banks, core enterprises, small and medium enterprises and third party organizations constitute the four party relations of supply chain financing services. The economic interests of the four parties exist in the demand of interest game. All sides stand in the perspective of self-interest and advocate the demands of themselves, resulting in the game dilemma of the following interests.

3.4 Blind spots in risk control.

Recently, enterprises have attracted the attention of the regulatory authorities and all circles of society through the construction of false trade background or by unreasonable pricing of banks, some banks even cooperate with customers to fictitious trade background for illegal lending. Small and medium-sized enterprises blindly expand production, and the safety of credit funds cannot be effectively guaranteed. Whether the third party logistics companies have a safe place to store their mortgages or not? If there are any adverse circumstances, they will threaten the safety of bank loan funds.

4. General scheme design of supply chain financing service for commercial banks.

According to the design of the supply chain financing suit scheme for the core enterprises, the design principles should be defined first. Secondly, to understand the interest demands of the four stakeholders on the supply chain. Thirdly, design the whole process financing process of the supplier and distributor. Finally, the suitable product is matched according to the demand analysis of the supply chain upstream and downstream enterprises.

4.1 Design principles of supply chain financing.

When designing the supply chain financing plan, it is mainly based on the principles of strategic common interest, interest sharing (risk share), customer psychology and bank advantage, to form a broad strategic alliance between customers and banks. First of all, find the strategic common point, stand on the bank perspective and view the construction of the core enterprise financing service mode, and take it as the core customer of the whole line of interests. Secondly, find the interest points to fully support the development of supply chain of core enterprises and promote the rapid development of enterprises, so as to benefit the growth of banking business and achieve win-win situation between banks and enterprises. Thirdly, seize the financing mentality of the upstream and downstream customers in supply chain, and use the support of the core enterprises to borrow the "potential" marketing. Finally, give full play to the advantages of the bank and make full use of the advantages of the bank's huge settlement service system to provide customers with global financial services.

4.2 Demand analysis of supply chain financing.

Commercial banks, core businesses, third party institutions, and upstream and downstream SMEs are four party interest associations in supply chain financing services, their respective needs are different. Analyze the needs of commercial banks, core businesses, third party institutions and the upstream and downstream SMEs, integrate the four party resources, coordinate the four party interest relations, and satisfy the interests demands of all parties' business development.

4.2.1 Commercial bank

For commercial banks, supply chain financing services effectively improve the efficiency of financing and service. Commercial banks can provide the necessary financing services to the core group, adjust the credit structure and reduce the risk of loan concentration. Batch expansion of customers, standardized operations, and reduce operating costs.

4.2.2 Core Enterprise

For the core enterprises, stable and downstream enterprise procurement and sales relationship is the priority among priorities of the business activities. To strengthen efforts to control the upstream and downstream enterprises, not only stabilize the supply chain marketing, optimization of financial statements, to ease the financial pressure to obtain excess returns, but also enhance the competitiveness of the supply chain and response speed, optimize the financial statements.

4.2.3 The third party organization

The third party organization in supply chain financing covers insurance, security, logistics, e-commerce, factoring companies, leasing companies and other types of enterprises. The third party organization in the premise of obtaining the income provides the bypass for bank financing, improves the business risk control system and increases the efficiency of the business cooperation.

4.2.4 Small and medium enterprises

As the customers around the core of the upstream and downstream of small and medium-sized enterprises, common problems exist in the financing difficulties and the financing expensive. Through the supply chain financing, On the one hand, reduce the risk of bank financing of small and medium enterprises and alleviates the liquidity pressure; on the other hand, build a harmonious stable on the downstream customers, reduce transaction costs and increase with the enlargement may further enhance the production management ability.

4.3 Supply chain financing plan design.

Analyze the organization structure of group company, identify the core enterprise group, and take the group-owned subsidiary and the branch as the core customer supply chain financing. According to the core customer purchase, production and sales of the formation of chain link, form the upper and lower reaches of the actual customer transactions. Measure the capital demand of downstream enterprises, based on the goods transaction process and the future cash flow corresponding to the accounts. Do reasonable combination of various products, form comprehensive trade financing service scheme as the core enterprise and the upstream and downstream customers and promote the common development of the core customers and downstream business customers through the integrated use of domestic trade financing products, as can be seen in Figure 1. Supply chain financing mode includes two parts suppliers and dealers throughout the whole financing. The following describes the operation steps of the two part.

4.3.1 Supplier financing

The core enterprise received dealer orders and orders' scheduling stage, the supplier may apply the financing business orders from the bank. In the production of finished products before delivery, the supplier may apply for commodity financing and warehouse financing business. After the product delivery of the core enterprise, universal payment account period problems exist, and they can apply for the factoring.

4.3.2 Dealer financing.

When the core enterprise sells products to the downstream distributors, Dealers can be directly to the bank to apply for commodity finance business and warehouse financing business after the products delivery. In addition, when the dealers deliver a large number of products to the key customers, they can apply for financial leasing from the bank, lease receivable factoring business.

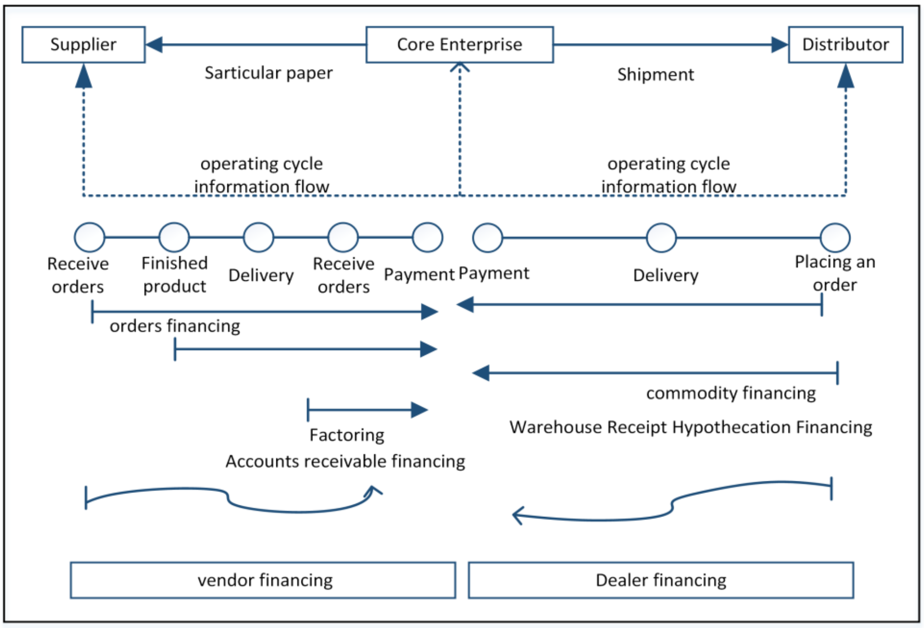

Fig. 1 The supply chain financing service core enterprise overall design ideas

4.4 Supply chain financing products matching.

In the supply chain suppliers through the transaction will sales of raw materials to the core enterprises, the core enterprise product design and development, and will form a minor component distribution of products to related enterprises of different production, the core enterprise final assembly will be finished and sold to distributors, dealers sold by end customers. Supply chain financing product design system, as shown in Figure 2.

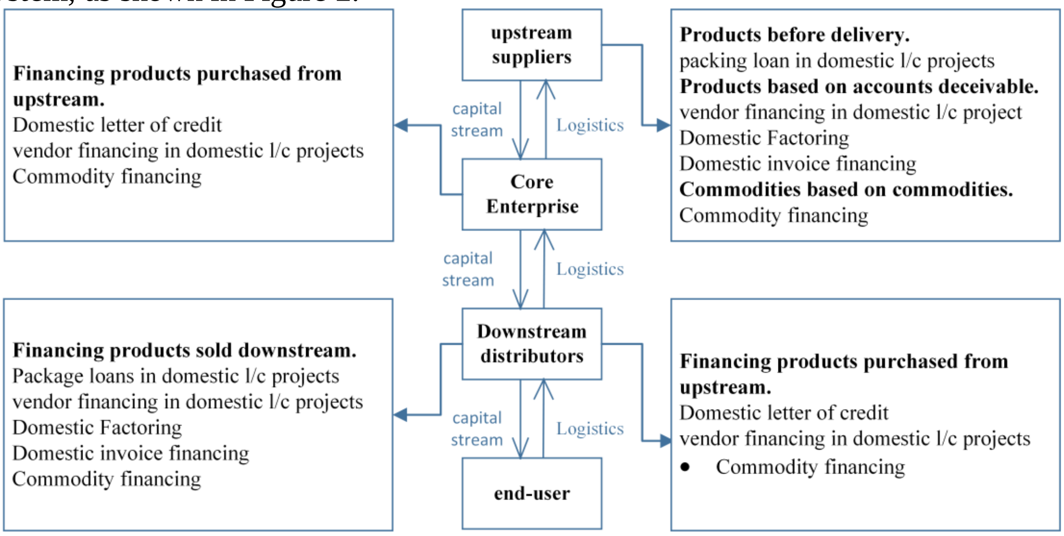

Fig. 2 Supply chain financing product system diagram

Products in the process of upstream suppliers and the core enterprises transaction. The core enterprises provide core credit, buyer financing, commodity financing, purchase order financing, liquidity loans and other financing products. Sales links provide the credit loan package, the credit financing, domestic factoring, invoice financing, commodity financing and other products. For the upstream supplier delivery links, the bank can provide the loan, credit seller financing, domestic factoring, invoice financing, commodity financing and other products packaging.

The downstream distributors and the core business process of products. The procurement financing products of downstream distributors bought from the core enterprises include: domestic credit, domestic credit under the buyer financing, commodity financing. In the downstream distributors and end customers, the bank also provides domestic credit, domestic credit under the buyer financing, commodity financing and other products. These products are developed for supply chain enterprises to provide support, customer service demand, based on the strong applicability, however, subject to the approval of staff capacity, efficiency, market price and other factors has not been large-scale spread.

To sum up, the commercial banks mainly take the loans for liquidity, order financing, bank factoring and leasing business as the starting point to expand customers financing work.

5. An empirical study on the supply chain financing services: SQ Design Group

5.1 Basic introduction of the SQ group.

SQ Group Co. Ltd. is the largest equipment manufacturing enterprises in Shaanxi Province, its comprehensive strength in the heavy truck industry is in the first echelon, and it mainly engages in heavy and light trucks, large and medium-sized passenger cars, mini cars, mini bridge, Cummings engines and parts development, production, sales and related automobile service trade and auto finance business. SQ group catches the market, improves quality, increases efficiency and finally maintains a rapid growth of car sales in 2016 through the grabbing the orders. The main business income is about 6 billion 820 million yuan, which rises 33.54% compared with 2015.

Through the analysis of the SQ Group operates nearly three years of data, it is found that the supply chain of SQ group exists two problems. 1. The form of supply chain financing is single, the single financing service product concentration causes greater debt pressure for the SQ group. It is unable to make an inventory of commercial paper to reduce the liquidity of financial assets of the group. A large number of bank SQ group in the process of settlement and upstream and downstream enterprises in the acceptance also add to the upstream and downstream enterprises financing burden. 2. The members of the supply chain financing high barriers to entry, banks generally take the way of group security related financing support to the enterprises in the supply chain. When the SQ group provides credit support at the same time, it requires its member units to provide reverse guarantee. It cannot realize the effective combination of capital and the real demand. Therefore, banks need to drive the chain on the financing of small and medium enterprises through the supply chain financing services, to strengthen the SQ group on the upstream and downstream enterprises effective management, to enhance the overall competitiveness and to achieve win-win situation between banks.

5.2 Demand analysis of supply chain financing.

The capital turnover of the core enterprise is closely related with the upstream and downstream enterprises, the successful completion of the core business depends on the cooperation of the upstream and downstream enterprises. Therefore, the analysis of the downstream flow of funds demand becomes particularly important, which is the basis of supply chain financing. The analysis on the demand of SQ group four financing is as follows.

5.2.1 Needs of the upstream supplier financing.

The export business and domestic trade procurement of SQ group mainly concentrated in the China. There are hundreds of large, medium and small suppliers in the country, the small and medium enterprises account for nearly 80%, these small and medium enterprises are generally weak, and lack of bank credit. For the traditional working capital loans, it is difficult to meet the financing needs of upstream suppliers, suppliers overall financing demand, broad market space. The suppliers are in a weak position compared with the SQ group. They must solve the problem of financing costs to overcome the financing obstacles through the combination of packaging products.

5.2.2 Financing needs of downstream dealer.

The SQ group has a perfect sales network in the country. For the downstream distributors, most of them are the agents in the provinces, city and county. Most of them are small and medium trade enterprises, the financing channel is single. It is urgent for banks to provide more diversified financing services. SQ group supports large bank cooperation with downstream distributors. It is willing to provide joint liability guarantee for the in the domestic downstream distributors. Downstream distributors have a strong financing intention.

5.2.3 Financing needs of the core enterprise.

In 2016, the annual heavy cumulative sale is 108060 units, with total increase of 33.49%. The market share is about 14.6%, which increases by 2 percentage points compared to last year. Overall, in 2017, annual turnover of capital speed of the vehicle plate and plate parts subsidiary of the SQ group is quick, the overall capital is adequate while the demand in the production of sales season is large. In order to ensure the inventory of goods and to meet the needs of the sales season, the procurement of raw materials is in large quantities, so that customers have greater demand for liquidity in the production season.

5.3 SQ group of supply chain financing products matching.

5.3.1 Financing products matching of the upstream products

According to the product features of the G bank supply chain financing, this paper focuses on the four types of supply chain financing products of SQ Group supply chain upstream supplier downstream distributors, including the financing order, factoring financing, commodity financing, lease receivable factoring, to design business and solutions. According to the characteristics of the financial needs of upstream suppliers, the manuscript matches the two types of products, respectively. It is the order financing, factoring business. The business process, risk control measures are briefly introduced as follows:

1. Financing order

The bank takes the expected sales as the main source of repayment of short-term financing, to meet the seller shipped the goods before payment, to purchase materials and organize the production and transport of goods and capital requirements. At the same time, the bank should do product risk prevention, performance schedule tracking of the borrower, in strict accordance with the contract requirements and delivery period for presentation. The seller will be opened under your order payment account in the bank, and in the financing agreement for the sale of goods only accounts receivable accounts. In order to apply the seller before financing, the procurement of raw materials should be used for payment, paid directly by the bank to the upstream suppliers account.

2. trade financing

The seller will provide its product sales service or other reasons arising from the assignment of receivables to the bank, provided by the bank accounts receivable financing and commercial credit investigation, comprehensive financial services to accounts receivable management. At the same time, the bank should do product risk prevention. The seller needs to open the order under the payment accounts in the bank, and in the financing agreement for the sale of goods only accounts receivable accounts.

5.3.2 Financing products matching of the downstream distributors.

According to the characteristics of financial demand of the downstream distributors, matches the two types of products, which are the commodity finance lease receivables, factoring business, respectively. The business process, risk control measures are briefly introduced as follows:

1. Commodity financing

Based on commodity credit financing, customers are breakthrough depends on comprehensive credit financing bottlenecks, the borrower to have reserve, inventory or trade receivables pledge goods value, provided by the bank of structural short-term financing business. At the same time, the bank should be prepared to guard against the risk of products, and set a warning line for the change of the price of the goods, and the ratio of the market value of the commodity to the principal and interest margin of the financing is not less than 125%. Cap the total amount of financing, not exceeding 70% of the value of the approved commodity. At the same time, we set up the disposal line, and the ratio of the market value of the goods to the principal and interest of financing is no less than 120%.

2. Receivables factoring

Formed based on the lessor (financial lease companies) and the lessee under the premise of financing lease relationship, the lessor will be under a finance lease contracts outstanding leasing accounts receivable creditor's rights transfer to the bank, the bank creditor's rights and the assignee as lease rental income, and provide financing to the lessor and commercial credit investigation, leasing accounts receivable management of financial services. At the same time, the bank should prepare the product risk prevention, open the accounts receivable payment collection, closely monitor the operation of the tenant and the return of the money.

5.4 The Implementation effect of supply chain financing scheme.

SQ group has a strong demand for optimization of financial statements and inventorial asset. Financing gap exists between the upstream and downstream enterprises of the SQ group supply chain. After identifying the SQ group and its subsidiaries as core customers, Commercial Banks vigorously develop the trade financing business of the upstream and small enterprises of core customers. The company has provided a partial list of suppliers to commercial Banks. The commercial Banks will select the enterprises with well credit standing and stable transactions to handle the trade financing business. It is estimated that 40 new customers can be added to commercial Banks, the increase of new trade finance loans will reach about 1-200 million yuan, it will bring in more than one million intermediary business income. This will create a favorable policy environment for commercial Banks to implement small business credit business. Meanwhile, it can effectively promote the marketing of individuals and other products of the company. Increase the coverage of loan customers in commercial bank personal products and company products. According to the regulations, we can increase the value-added services such as enterprise cyber banking service and payroll, which will effectively improve the comprehensive contribution of customers.

6. Conclusion and enlightenment

In this paper, the principle of supply chain is applied. Firstly, the problem of the supply chain financial service is analyzed. Secondly, based on the analysis of the demand of the supply chain financing, the suitable financing products are matched for the upstream and downstream enterprises of the supply chain. Finally, taking the SQ group as an example, the supply chain financing service scheme is designed based on the analysis of the characteristics of the demand for funds. In order to ensure the implementation of the supply chain financing business, the bank should put forward suggestions from the following four aspects.

Firstly, the demand analysis should done well, to understand the core demands of customer operation and production, start a policy service according to the customer demand characteristics. Companies accepting financial products that do not meet their own requirements often mean more capital costs. Only by understand the customer's production and operation situation deeply, grasping the settlement characteristics of customer funds, Banks can provide customers with a strong financial service plan. The goal of the bank's financial services programmed is to help customers reduce their procurement costs, Reduce financing cost, ensure asset value, strengthen internal financial management. The bank should make overall arrangements for the members of the supply chain financing. Make point references to embedded financing products at the key link of supply chain operation and the important time node.

Secondly, match products， based on the settlement characteristics and the sales midseason and off-season. The financial products of the bank should not only solve the financing problem of enterprises, but also consider the future enterprise-financing plan. Based on predicting the future capital price, loan scale and financing mode in advance, match the product after considering all these factors.

Thirdly, coordinate the benefit of all parties in the supply chain. Strengthen the links between banks and core enterprises. Not only strengthen the connections between Banks and core enterprises, but also strengthen the connections between core enterprises and upstream and downstream enterprises in supply chain. In the process of supply chain financing, Commercial banks need to cooperate with core enterprises, upstream and downstream enterprises and third parties. Commercial Banks should establish a direct communication platform with core enterprises to provide one-stop financial services for core enterprises. Commercial Banks and core enterprises should enhance strategic cooperation, formulate overall objectives, strengthen communication and coordination, and take precautions against risks. At the same time, as the bridge and link in the supply chain, the core enterprise should pay attention to the overall operation of the supply chain and actively seek the bank to support the upstream and downstream enterprises.

Fourthly, Commercial banks should strengthen risk management and control, the financing operation should be closely related to three points, including "loan use, source of repayment, and disposal of collateral". Specifically, product risk control and process risk control should be made. Commercial banks should strengthen risk management products, to avoid excessive innovation. Commercial Banks should design products that comply with industry regulations and financial regulatory policies, and avoid the promotion of immature financial products without market inspection. In order to strengthen the process risk control, commercial Banks should set up a targeted risk control system, and conduct reasonable monitoring on due diligence, loan approval, operation supervision and entrusted payment. The bank should keep a careful eye on business condition of enterprise and enterprise capital flows, to ensure that the bank financing use of funds is in accordance with the regulations and only flows between members of the supply chain. Once there is situation that is not conducive to the bank's financial security, Banks should suspend lending and recover funds in time to prevent further risks.

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