

The Development of Investment Banking Industry and the Application of Supply Chain Finance in Commercial Bank Credit Business

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Abstract. Under economic globalization, the investment banking industry has experienced rapid development driven by cross-border capital flows, mergers and acquisitions, and financial innovation, while supply chain finance (SCF) has emerged as a transformative tool in commercial bank credit services. This paper examines the dual dynamics of investment banking expansion and SCF adoption, focusing on China’s banking sector, with China Merchants Bank (CMB) as a case study. The study highlights that globalization has propelled investment banks toward internationalization, diversification, and technological integration, enabling them to support global capital markets and corporate restructuring. Simultaneously, SCF addresses financing challenges for SMEs by leveraging transactional data and core enterprise creditworthiness, enhancing credit efficiency and risk management. CMB exemplifies these trends through its global investment banking footprint and innovative SCF platforms like “Cloud Chain,” which integrates fintech solutions such as blockchain and AI. Findings suggest that commercial banks must prioritize technological adoption, regulatory compliance, and strategic partnerships to thrive in globalized financial ecosystems. This paper contributes insights into the evolving roles of investment banking and SCF in fostering financial inclusivity and resilience amid globalization, offering practical implications for banks navigating interconnected markets.

1 Introduction

Globalization in the context of economic globalization, the global financial landscape has undergone profound transformations. Economic globalization not only promotes cross-border trade and capital flow but also accelerates the integration of financial markets. As an important component of the global financial system, the investment banking industry has experienced rapid development, driven by increasing international business opportunities, cross-border financing needs, and global mergers and acquisitions [1]. At the same time, supply chain finance has emerged as a vital innovation in commercial banking, addressing the financing difficulties faced by small and medium-sized enterprises (SMEs) and enhancing the efficiency of credit services [2].

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An in-depth exploration of the development trend of investment banking and its interaction with supply chain finance is of great theoretical and practical significance for understanding the modernisation and transformation of the financial system and enhancing the ability of commercial banks to serve the real economy. However, existing studies mostly focus on the analysis of the development of a single field and lack a systematic exploration of the intrinsic correlation between the two, especially in the context of China's accelerated financial openness, the relevant empirical studies are even more scarce.

This study aims to reveal the development characteristics of the investment banking industry in the context of economic globalisation, and to explore the innovative application mechanism of supply chain finance in commercial bank credit business. To achieve this goal, this paper will adopt the literature analysis method to sort out the theoretical lineage of investment banking and supply chain finance, and use the case study method to take China Merchants Bank as the research object to analyse the synergistic effect of its internationalisation strategy and supply chain finance practice. Through this study, it is expected to provide theoretical reference and practical guidance for the innovative development of commercial banks in the era of globalisation.

2 Development of investment banking industry under economic globalization

2.1 Characteristics of economic globalization

Economic globalization refers to the increasing interdependence of global economies due to the cross-border movement of goods, services, technology, and capital. For financial markets, globalization means freer flow of capital, the rise of international financial centres, and intensified competition among financial institutions [3].

2.2 Drivers of investment banking development

The globalization process has created an urgent need for financial services that can support cross-border transactions, overseas investments, and multinational mergers and acquisitions. Investment banks, with their expertise in capital markets, advisory services, and financial structuring, have become crucial players in facilitating global economic activities. The development of the investment banking industry under globalization is driven by international capital flows, cross-border mergers and acquisitions and financial innovation [4].

For international capital flows, global investors seek diversification by investing in foreign markets, creating demand for international underwriting, asset management, and investment advisory services [5]. For cross-border mergers and acquisitions, Corporations aiming for global expansion rely on investment banks for due diligence, valuation, and transaction structuring [6]. From the aspect of financial innovation, global competition pushes investment banks to develop innovative financial products, including derivatives, structured products, and green bonds, catering to international investors' evolving needs [7].

2.3 Trends in the global investment banking industry

The globalization of financial markets has driven profound transformations in the investment banking sector, characterized by two parallel developments [3]. First, leading institutions have pursued international expansion through establishing global networks of branches and subsidiaries, enabling them to provide cross-border services while simultaneously

diversifying their product offerings [6]. Beyond traditional underwriting and M&A advisory, modern investment banks now deliver integrated solutions spanning asset management, private equity, structured finance, and fintech-enabled services. This geographic and service-line expansion has been facilitated by rapid technological adoption, with digital platforms, big data analytics, and artificial intelligence revolutionizing client onboarding, trade execution, and real-time risk assessment [8].

However, this globalized operating environment presents significant regulatory complexities. In the wake of successive financial crises, international regulatory bodies have implemented stringent compliance frameworks including Basel III capital requirements, MiFID II transparency rules, and cross-border resolution mechanisms. Investment banks now allocate 15-20% of operating budgets to compliance functions, while navigating divergent national regulations - from the Volcker Rule in the U.S. to the EU's Markets in Financial Instruments Directive [4]. These measures have substantially increased compliance costs but also driven innovation in regtech solutions, with 78% of major banks now deploying AI for anti-money laundering monitoring [5]. The sector thus operates within a paradox: while technology enables borderless service delivery, regulatory architectures remain nationally fragmented, requiring institutions to maintain sophisticated localization strategies.

2.4 China's investment banking industry in globalization

China's investment banking industry, while relatively young, has achieved significant progress. Major Chinese banks such as ICBC, Bank of China, and China Merchants Bank (CMB) have actively expanded their international businesses, facilitated overseas listings of Chinese firms, and engaged in cross-border advisory services. Economic globalization has provided Chinese investment banks with a broader market and learning opportunities from global peers. However, they still face challenges such as insufficient international experience and limited influence in global financial rule-making [8].

3 Equations and mathematics

3.1 Overview of supply chain finance

Supply chain finance (SCF) refers to financial services provided by banks or other financial institutions to participants in a supply chain, enabling smoother cash flow within the supply chain ecosystem [9]. By integrating financing solutions into the entire supply chain, banks can reduce financing risks and better understand the creditworthiness of borrowers through their transactional relationships within the supply chain.

3.2 Importance of supply chain finance

In an era of global supply chains, traditional credit evaluation based solely on individual corporate credit history is no longer sufficient. Many SMEs, despite healthy operations, struggle to obtain financing due to lack of collateral or weak credit profiles. Supply chain finance addresses this gap by leveraging the creditworthiness of core enterprises (large anchor firms in the supply chain) to support financing for upstream suppliers and downstream distributors. This enhances financial inclusiveness and strengthens supply chain resilience [5].

3.3 Application strategies in commercial bank credit business

The evolution of supply chain finance (SCF) has transformed commercial banking through innovative product offerings and enhanced risk management capabilities. Banks have developed specialized SCF solutions—including accounts receivable financing, pre-shipment financing, and inventory financing—that anchor credit to actual supply chain transactions, thereby reducing default risks by tying financing to real economic activity [10]. This transactional approach is supported by sophisticated risk management frameworks that leverage real-time data from logistics records, payment flows, and operational metrics, enabling dynamic risk assessment throughout the supply chain lifecycle [10]. Crucially, banks have cultivated strategic partnerships with core enterprises, utilizing their strong credit profiles to extend financing to smaller suppliers while mitigating risk through collaborative financing structures. These relationships not only lower default probabilities but also create enduring bank-enterprise ecosystems that generate recurring business opportunities [4].

Technological advancements have become the cornerstone of modern SCF operations, with fintech solutions dramatically improving efficiency and reliability. Blockchain technology ensures data integrity and transaction traceability across complex supply networks, while big data analytics enhance risk model through pattern recognition and predictive capabilities [6]. Artificial intelligence further streamlines processes by automating credit assessments and monitoring, reducing approval times from days to hours. Together, these innovations have enabled banks to achieve unprecedented visibility into supply chain operations, allowing for more accurate credit pricing and timely intervention in potential risk scenarios. The integration of transactional data, core enterprise partnerships, and cutting-edge technologies has positioned SCF as both a risk-mitigated lending approach and a strategic tool for banks to deepen client relationships in the corporate sector [10].

3.4 Case study

China Merchants Bank (CMB) has become a leader in supply chain finance in China. Its SCF services cover the entire lifecycle of supply chain transactions, from raw material procurement to product sales. Through its digital platform “Cloud Chain,” CMB integrates logistics, information flows, and capital flows into a seamless financing service, enabling real-time monitoring and financing disbursement. The success of CMB’s supply chain finance is attributable to the strong partnerships with large corporate clients acting as supply chain anchors. Then advanced fintech applications ensuring data transparency and operational efficiency are also important. Lastly, the success can owe to tailored financing solutions meeting the diverse needs of supply chain participants.

4 Research findings and analysis

The application strategies of supply chain finance (SCF) in commercial bank credit business play a crucial role in enhancing financial efficiency, mitigating risks, and fostering economic growth. Based on research findings, these strategies can be categorized into the following key areas:

4.1 Strengthen innovation of supply chain finance products

To remain competitive, commercial banks must continuously innovate their supply chain finance products to align with evolving market demands. Traditional financing models, such as accounts receivable financing and inventory financing, should be expanded to include more diversified and customized solutions. For product diversification, banks should develop

specialized financial products tailored to different industries, such as manufacturing, retail, and agriculture. For example, dynamic discounting and reverse factoring can be introduced to optimize cash flow for suppliers.

From the aspect of personalized solutions, by leveraging customer data, banks can offer flexible financing terms, such as adjustable interest rates and repayment schedules, to meet the unique needs of small and medium-sized enterprises (SMEs).

For integration with digital platforms, collaborating with e-commerce and logistics platforms can facilitate real-time financing solutions, such as instant credit lines based on transaction history.

4.2 Establish a sound supply chain finance risk management system

Risk management is a critical component of supply chain finance, as it involves multiple stakeholders with varying creditworthiness. A robust risk control framework ensures the stability and sustainability of credit operations.

From the aspect of comprehensive risk assessment, banks should evaluate the credit risks of both upstream suppliers and downstream buyers by analyzing financial statements, transaction records, and industry trends. By utilizing AI and big data analytics, banks can track real-time supply chain activities to detect early warning signs, such as payment delays or inventory shortages.

Credit guarantees, insurance policies, and collateral management can be employed to reduce exposure to default risks. Additionally, banks should establish contingency plans for supply chain disruptions caused by economic fluctuations or geopolitical factors.

4.3 Strengthen cooperation with supply chain enterprises

A collaborative approach between banks and supply chain participants enhances trust and operational efficiency, fostering a more resilient financial ecosystem. By forming strategic alliances with core enterprises—such as large manufacturers or distributors—banks can gain deeper insights into the supply chain's health, enabling them to provide targeted financial support to suppliers and dealers. This partnership can extend to the joint development of customized financing models, such as vendor-managed inventory (VMI) financing, which optimizes working capital across the entire supply chain. Furthermore, establishing digital information-sharing platforms where banks, suppliers, and buyers can securely exchange transaction data enhances transparency, reduces information asymmetry, and strengthens risk management. Through these integrated efforts, banks and supply chain participants can create a more efficient, transparent, and sustainable financial environment.

4.4 Use financial technology to improve the level of supply chain financial services

The integration of fintech innovations is revolutionizing supply chain finance by significantly enhancing efficiency, security, and accessibility. Blockchain technology plays a pivotal role in ensuring transparency and security through tamper-proof transaction records, which not only reduces fraud risks but also enables automated payments via smart contracts. Meanwhile, big data analytics empowers banks to develop more accurate credit scoring models for SMEs—even those with limited financial history—by analyzing historical transaction data, social credit records, and market behavior. Further streamlining operations, AI-powered tools automate loan approvals, detect transactional anomalies, and provide predictive insights into cash flow trends, optimizing decision-making processes. Complementing these advancements, IoT-enabled devices offer real-time monitoring of collateral, such as

inventory and machinery, ensuring the security of asset-backed financing. Together, these technologies create a robust, data-driven ecosystem that minimizes risks, accelerates processes, and expands financial inclusion across supply chains.

5 Discussion

5.1 Analysis on the development of CMB's investment banking industry

As an internationally competitive commercial bank, CMB demonstrates distinct strengths in its investment banking sector. Firstly, the bank has achieved significant business diversification, with its investment banking operations spanning securities underwriting, mergers and acquisitions, asset management, and risk management. This broad service portfolio allows CMB to cater to diverse client needs across global markets. Complementing this diversification is its high degree of internationalization, evidenced by its extensive global branch network spanning Asia, Europe, and the Americas. Such a presence enables CMB to support cross-border transactions and tap into international capital flows. Moreover, CMB's strong innovation capability stands out, particularly in financial technology, where it leads the industry in integrating advanced tools like AI and blockchain into its investment banking services. These technological advancements enhance operational efficiency and reinforce its competitive edge in global markets.

5.2 Application of supply chain finance in commercial bank credit business

Supply chain finance (SCF) has reshaped commercial bank credit practices by addressing critical challenges in SME financing. Primarily, SCF enables banks to broaden the scope of credit business by extending services to SMEs that traditionally lack collateral or credit history. This expansion is coupled with enhanced risk mitigation, as SCF leverages transactional data and the creditworthiness of core enterprises within supply chains, allowing banks to assess borrower reliability more accurately. Furthermore, SCF simplifies credit processes, reducing approval times and administrative burdens through digitized workflows. These efficiencies not only improve service delivery but also align with the growing demand for agile financial solutions in globalized trade ecosystems.

5.3 Analysis of CMB's supply chain finance business

CMB's supply chain finance operations exemplify innovation and strategic adaptability. Notably, its SCF services offer comprehensive coverage across supply chain stages—from raw material procurement to production and sales—ensuring seamless financial support for all participants. This wide reach is underpinned by robust risk management frameworks, where CMB employs real-time data analytics and dynamic monitoring to minimize credit risks. Additionally, the bank pioneer innovative business models, such as integrating SCF with internet-based platforms (e.g., “supply chain finance + Internet”), which enhance transparency and accessibility. By leveraging fintech tools like blockchain, CMB ensures data integrity and accelerates transaction verification, further solidifying its leadership in SCF innovation.

6 Conclusion

Under the background of economic globalization, the investment banking industry has developed rapidly, and the application of supply chain finance in commercial bank credit

business has become increasingly widespread. Commercial banks should grasp the development trend, strengthen supply chain financial product innovation, improve risk management systems, strengthen cooperation with supply chain enterprises, and use financial technology to improve service levels in order to achieve sustainable development.

Under the background of economic globalization, the application of investment banking industry and supply chain finance in commercial bank credit business is of great significance. China Merchants Bank has obvious advantages in investment banking and supply chain finance business, which provides a useful reference for the development of my country's financial industry. In the future, with the continuous deepening of the financial market, investment banking and supply chain finance will play a more important role in commercial bank credit business.

Economic globalization has fundamentally reshaped the investment banking industry and stimulated the development of innovative financial services such as supply chain finance. Investment banks play a critical role in facilitating cross-border investments and corporate restructuring, while supply chain finance offers commercial banks new pathways to support SMEs and optimize credit risk management. The integration of these financial services not only enhances banks' competitiveness in global markets but also strengthens their capacity to serve the real economy. As financial technologies advance and global trade dynamics evolve, both investment banking and supply chain finance will continue to play increasingly important roles in shaping the future of commercial banking.

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