Can Supply Chain Finance Reduce Corporate Financial Risks?

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Abstract. As an emerging financial format, supply chain finance is of great significance in alleviating enterprises' capital problems. Based on the relevant data of China's A-share listed companies from 2010 to 2020, this paper empirically tests the impact of supply chain finance on corporate financial risks. The study finds that supply chain finance can significantly reduce corporate financial risks. Mechanism analysis shows that supply chain finance reduces corporate financial risks mainly through two paths: reducing corporate financing constraints and agency costs. Extended research finds that the inhibitory effect of supply chain finance on corporate financial risks is more obvious in private enterprises and large-scale enterprises. The conclusions of this paper provide new references and bases for reducing corporate financial risks, improving corporate financial stability, and strengthening corporate risk prevention and control.

Keywords: Supply Chain Finance; Corporate Financial Risk; Financing Constraints; Agency Costs.

1. Introduction

In the context of the new era, due to the COVID-19 pandemic and the escalation of geopolitical conflicts, the global economic environment is facing severe challenges, which have also had a significant impact on China's economic development. At present, China's economy is in a critical transition period from high-speed growth to high-quality development. During this transition, some industries have exposed problems such as weak market demand and structural overcapacity, leading to generally poor operating performance of enterprises. Moreover, according to the "Statistical Report on Loans Granted by Financial Institutions in the Third Quarter of 2023" released by the People's Bank of China, by the end of September 2023, the total scale of RMB loans of financial institutions in China had reached 234.38 trillion yuan, an increase of 10.9% compared with the same period of the previous year. However, in-depth analysis shows that the growth rate of credit supply to the real economy in the credit data of major commercial banks (such as the 6.5% growth rate of corporate loans of Industrial and Commercial Bank of China, 7.0% of China Construction Bank, and 6.2% of China Merchants Bank) is still significantly lower than the overall loan growth rate. From the above data, it can be seen that although the current domestic monetary policy continues to be relaxed, the growth rate of credit supply from financial institutions to enterprises is still insufficient, which also makes some enterprises continue to face capital difficulties. In this case, the hidden dangers of corporate financial risks are increasing, which need to be highly valued. As the core main body of the national economy, the sustainable and healthy development of enterprises is directly related to key areas such as the quality of national economic growth, the stability of the job market, technological innovation capabilities, and social prosperity. Therefore, exploring effective measures to resolve corporate financial risks is of great practical significance at present.

Supply chain finance, as an emerging financing model, has attracted widespread attention from the industry and academia in recent years. In 2020, the "Opinions on Regulating the Development of Supply Chain Finance to Support the Stable Circulation and Optimization and Upgrading of Supply Chains and Industrial Chains" was issued, which systematically established the development framework of supply chain finance, and emphasized the use of modern scientific and technological means to strengthen risk management and control capabilities. Furthermore, the Central Economic Work Conference held in 2023 emphasized the need to "improve the capital supply system and enhance the efficiency of financial services for the real economy". Under the guidance of the above policies, supply chain finance has become the focus of attention. This innovative financial model, relying on actual commercial transaction scenarios, effectively improves the credit allocation

structure of commercial banks by systematically integrating capital flows and credit elements in the industrial chain. From the perspective of practical effects, this model can not only enhance the risk resistance ability of market entities but also play a positive role in maintaining stable economic operation. More importantly, supply chain finance breaks through the limitations of traditional financial services for individual enterprises and realizes the overall improvement of the competitiveness of the entire industrial ecosystem. Looking forward to the future, with the development of digital technology and the deepening of financial innovation, the value of supply chain finance in resolving corporate operational risks will be more fully reflected.

In view of this, this paper takes A-share non-listed companies from 2010 to 2020 as samples to empirically analyze the impact of supply chain finance on corporate financial risks. The results of the empirical test show that supply chain finance can reduce corporate financial risks, and this conclusion still holds after controlling for endogenous influences; the mechanism test shows that the main ways for supply chain finance to reduce corporate financial risks are by reducing corporate financing constraints and agency costs. Further, the reducing effect of supply chain finance is more obvious for private enterprises and large-scale enterprises.

The possible research contributions of this paper are: (1) Expanding the research content on corporate financial risks. Some scholars have studied the factors affecting corporate financial risks from the perspectives of corporate social responsibility (Hadlock and Pierce, 2010), improvement of the legal environment (Su Kun et al., 2010), and digital transformation (Zhao Na et al., 2022). However, there is no literature analyzing corporate financial risks from the perspective of supply chain finance. (2) This paper further explores the path of supply chain finance to reduce corporate financial risks and finds that supply chain finance can effectively reduce corporate financing constraints and agency costs, thereby reducing corporate financial risks.

2. Theoretical Analysis and Research Hypothesis

A large number of existing studies have found that corporate financing constraints and agency costs are important reasons affecting corporate financial risks. First, financing constraints have multi-dimensional impacts on corporate financial risks. From the perspective of capital acquisition, when enterprises face financing constraints, it will be difficult for them to obtain sufficient funds from the outside. In addition, enterprises under financing constraints may have to accept high-cost financing conditions, such as high-interest loans, to obtain corresponding funds, which undoubtedly increases the financial burden of enterprises. Once there are fluctuations in operations, the risk of a break in capital chain increases sharply, and enterprises will easily fall into financial crises. Second, in the absence of an effective management system, enterprise managers may ignore long-term value creation to stimulate short-term performance growth, resulting in agency costs (Michael et al., 1976). In order to supervise the behavior of managers, shareholders need to formulate a series of supervision systems, which requires the company to invest a lot of resources, such as establishing internal control systems and hiring external audit institutions, which increases the operating costs of enterprises. In addition, agency costs may also bring residual losses. Managers may consider short-term performance and their own interests more when making decisions, ignoring the long-term interests of the company.

To sum up, corporate financing constraints and agency costs are important reasons affecting corporate financial risks. Supply chain finance can reduce financing constraints and agency costs, so supply chain finance can also significantly reduce corporate financial risks through these two mechanisms.

Supply chain finance can reduce corporate financing constraints, especially solve the financing problems of enterprises (Song&Lu, 2017). Yang Yi (2022) also believes that the development of supply chain finance can provide enterprises with more financing methods by integrating upstream and downstream resources, which also helps to solve their financing difficulties. On the one hand, supply chain finance can expand corporate credit based on supply chain relationships. In the course of China's economic development, bank credit has always been the most important part of corporate

financing channels (Song Min et al., 2021). Supply chain finance extends credit to upstream and downstream small and medium-sized enterprises relying on the credit of core enterprises and real transaction backgrounds. Core enterprises, relying on their strong strength and good reputation, provide credit endorsement for their partners in the supply chain, which can further improve the relationship between banks and enterprises (Pan Ailing et al., 2023) and enhance the ability of small and medium-sized enterprises to obtain loans. For example, a large home appliance manufacturing enterprise, as a core enterprise, its upstream parts suppliers can apply for financing from financial institutions relying on long-term cooperation orders and stable transaction records with the core enterprise, which greatly increases the probability of financing approval and effectively eases financing constraints. On the other hand, supply chain finance can activate the current assets of enterprises. Current assets such as accounts receivable and inventory of enterprises are often in an idle state but contain huge financing potential. For example, small and medium-sized enterprises can finance from financial institutions with unexpired accounts receivable, obtain funds in advance, ease capital pressure, and reduce the risk of business interruption caused by capital shortage.

Supply chain finance can reduce the agency costs of enterprises. Specifically, on the one hand, when financial institutions participate in supply chain finance, they will review and evaluate the transaction data and credit of enterprises to determine whether to provide financing for them. This is equivalent to introducing external professional supervision. Under external supervision, it can effectively restrict senior executives and reduce their decisions that only consider their own interests (Luo, 2012). In addition, the audit results of financial institutions can provide a reference for shareholders, helping shareholders better understand the real operating conditions and financial status of enterprises. This can reduce the supervision costs caused by insufficient information, thereby reducing the financial risks of enterprises. On the other hand, some supply chain financial platforms use blockchain technology, and all participants can view the entire transaction process on the platform. Moreover, blockchain technology can significantly reduce the voting costs and organizational costs of shareholders, thereby promoting shareholders to participate in corporate governance more efficiently and quickly (Lafarre A et al., 2018), further reducing agency costs caused by information asymmetry.

For this reason, we put forward the following hypothesis:

H1: Under other conditions being equal, the higher the degree of enterprise supply chain finance, the lower its financial risks.

3. Research Design

3.1 Sample Selection and Data Sources

This paper selects Chinese A-share listed companies from 2010 to 2020 as the research sample. The sample data are processed as follows: delete financial and ST companies; delete companies with missing main indicator data and obvious abnormal data; to eliminate the impact of extreme values, the main continuous variables are winsorized at the 1% and 99% levels. After the above processing, 8230 sample observations are finally obtained. The relevant data of listed companies are from the CSMAR database.

3.2 Variable Definition and Measurement

3.2.1 Explained variable: Corporate financial risk (ZSCORE)

Academic indicators to measure corporate financial performance risks include corporate operating leverage, performance fluctuations, etc. Since *ZSCORE* can effectively predict the financial status of most enterprises under the conditions of emerging capital markets and effectively retain the comprehensiveness of the index, this paper uses the modified *ZSCORE* financial indicator proposed by Altman to measure financial risks (Altman, 1968). The specific calculation is as follows:

$$ZSCORE = (0.717\chi 1+0.847\chi 2+3.107\chi 3+0.42\chi 4+0.998\chi 5)\div 6 \quad (1)$$

In formula 1, *x1* is working capital, *x2* is retained earnings, *x3* is earnings before interest and taxes, *x4* is total market value of stocks, *x5* is sales revenue, and *x6* is total assets. The larger the *ZSCORE* value, the better the financial condition of the enterprise and the lower the financial risk.

3.2.2 Explanatory variable: Supply chain finance (SCF)

At this stage, the academic community has not reached a consensus on the measurement of the involvement degree of supply chain finance. This paper draws on the method of (Yao Wangxin et al., 2017) and uses the financial indicator method to calculate the ratio of the sum of short-term loans and notes payable within the enterprise year to the total assets at the end of the year as the substitute variable SCF of supply chain finance. The larger the value, the higher the degree of enterprise supply chain.

3.2.3 Mechanism variables

The mechanism variables selected in this paper are enterprise financing constraints (*SA*) and agency costs (*Agc*). For the measurement of enterprise financing constraints, this paper refers to the method of Ge Jing (2019) and uses the SA index method to measure the degree of enterprise financing constraints. The SA index is constructed with company size (Size) and company age (Age) as variables, and the calculation formula is:

$$SA = -0.737 \times Size + 0.043 \times Size^2 - 0.04 \times Age \tag{2}$$

The SA index is a negative value, and the larger its absolute value, the stronger the financing constraint of the enterprise, that is, the larger the SA index value, the smaller the financing constraint of the enterprise. For the measurement of agency costs, drawing on the research of Ang et al. (2000), this paper uses the operating expense ratio (*Agc*) to measure the agency costs of managers.

3.3 Model Construction

3.3.1 Basic regression model

To verify the relationship between corporate financial risks and supply chain finance (H1), the following model is constructed:

$$ZSCORE_{i,t} = \beta_0 + \beta_1 SCF_{i,t} + \beta_2 Controls_{i,t} + \sum Year + \sum Ind + \varepsilon_{i,t} \tag{3}$$

In the formula, i represents the enterprise, and t represents time. $ZSCORE_i$,t is the corporate financial risk calculated by the Z-index method, SCFi,t is the supply chain finance calculated by the word frequency analysis method, Controlsi,t is the control variable, Year and Ind are the fixed effects of year and industry respectively, and εi,t is the residual term. To verify H1, this paper focuses on the coefficient β1. If the coefficient is significantly negative, it indicates that supply chain finance will reduce corporate financial risks.

3.3.2 Mechanism test model

To explore the mechanism of enterprise financing constraints and agency costs between supply chain finance and corporate financial risks (H1), the specific models are as follows:

$$M_{i,t} = \gamma_0 + \gamma_1 SCF_{i,t} + \gamma_2 Control_{i,t} + \sum Year + \sum Ind + \varepsilon_{i,t} \tag{4}$$

Model (4) is used to analyze the relationship between explanatory variables and mechanism variables. Mi,*t* is the mechanism variable in this paper, including two indicators: enterprise financing constraints and agency costs; other variables are consistent with the previous ones.

4. Empirical Results and Analysis

4.1 Descriptive Statistics

Table 4-1 shows the descriptive statistical results of the main variables in model (4). The minimum value of corporate financial risk (*ZSCORE*) is 0, the maximum value is 0.442, and the standard deviation is 0.098, indicating that there are large differences in the financial risk levels of sample enterprises. The minimum value of supply chain finance (SCF) is 0, and the median is 0.126, indicating that there are few enterprises involved in supply chain finance in China at present, most listed enterprises have not carried out this business model, and the domestic supply chain finance market has great potential. The minimum values of mechanism variables *SA* and *Agc* are -5.946 and 0.007 respectively, and the maximum values are 5.771 and 0.119 respectively. There are large differences between the minimum and maximum values. This indicates that there are certain differences in the financing constraints and agency costs of sample enterprises. The statistical distribution characteristics of other control variables are basically consistent with the data disclosed in existing literature. On the whole, the sample data have certain representativeness and stability.

Table 4-1 Descriptive Statistical Results of Variables

Variable	Sample Size	Mean	Standard Deviation	Median	Minimum	Maximum
ZSCORE	8230	0.088	0.098	0.047	0.000	0.442
SCF	8230	0.147	0.119	0.126	0.000	0.488
SA	8230	0.710	2.226	0.915	-5.946	5.771
Agc	8230	0.044	0.023	0.040	0.007	0.119
ROE	8230	-0.434	6.558	-0.135	-46.170	22.468
Size	8230	21.340	1.186	21.242	18.887	24.444
Growth	8230	0.232	0.398	0.154	-0.364	2.573
CFO	8230	0.047	0.064	0.046	-0.133	0.222
IDR	8230	0.374	0.051	0.333	0.333	0.571
Top1	8230	32.860	13.847	30.910	8.480	71.170
Dual	8230	0.331	0.471	0.000	0.000	1.000
Lev	8230	0.902	0.868	0.654	0.050	5.001
Rfa	8230	0.208	0.133	0.187	0.003	0.583

4.2 Benchmark Regression

This paper first uses model 4-2 to test whether H1 is valid, that is, the impact of supply chain finance on corporate financial risks. The regression results are shown in Table 4-2. Columns (1)-(3) in the table are the regression results of adding core explanatory variables, control variables, and controlling year and industry fixed effects respectively. From the regression results, whether control variables are added or the fixed effects of year and industry are controlled, the coefficient of supply chain finance (*SCF*) on corporate financial risk (*ZSCORE*) is significantly positive at the 1% level, indicating that supply chain finance has a significant reducing effect on corporate financial risks, thus H1 is verified.

For each increase of one standard deviation (0.119) in supply chain finance (SCF), corporate financial risk *(ZSCORE*) decreases by about 0.60% (0.119 × 0.0505 × 100%). This is equivalent to 9.1% of the sample mean of corporate financial risk (*ZSCORE*) (0.006 / 0.088 × 100%). On the whole, the core conclusions of this paper are basically stable.

Table 4-2 Benchmark Regression Results

	(1)	(2)	(3)
SCF	0.0564***	0.0278**	0.0505***
	(6.017)	(2.510)	(4.054)
ROE		-0.0001	-0.0002
		(-0.503)	(-0.979)
Size		-0.0016	0.0005

		(-1.350)	(0.366)
Growth		-0.0162***	-0.0170***
		(-5.510)	(-5.839)
CFO		0.1118***	0.1160***
		(5.748)	(5.884)
IDR		-0.0394*	-0.0314
		(-1.938)	(-1.569)
Top1		0.0001	0.0000
		(1.085)	(0.451)
Dual		-0.0102***	-0.0077***
		(-4.513)	(-3.380)
Lev		0.0106***	0.0057***
		(6.143)	(2.759)
Rfa		0.0580***	0.0552***
		(6.271)	(5.544)
_cons	0.0800***	0.1098***	0.0759***
	(48.337)	(4.456)	(2.736)
Industry	Yes	Yes	Yes
Year	Yes	Yes	Yes
N	8230	8230	8230
r2_a	0.0046	0.0295	0.0536

Note: *, **, and *** indicate significance at the 10%, 5%, and 1% levels respectively; t-values are in parentheses, and cluster adjustment is performed at the company level. The same applies to following tables in this paper.

4.3 Robustness Test

Considering the possible endogenous interference in the model, this paper adopts various methods for stability testing.

4.3.1 Replacing the explained variable

Based on the research results of Bharath and Shumway (2008) and Wang Shiyu and Chen Zhihong (2018), this paper decides to use the Merton DD model to simplify and calculate corporate financial risks. The indicators derived from this model not only reflect market-oriented characteristics but also are more sensitive to changes in the external market environment of products, while avoiding the impact of accounting information quality (Phillips and Sertsios, 2013). In addition, due to the probabilistic nature of this indicator, it is more consistent with the essence of corporate financial risks. Therefore, using the Merton DD model to calculate financial risk indicators is both typical and shows its relative advantages. The regression results are shown in column (1) of Table 4-3. The regression results all indicate that supply chain finance has a significant impact on reducing corporate financial risks, and the results of this paper are relatively robust.

In addition, Johnet al. (2008) and Acharya et al. (2011) believe that the higher the operating risk of a company, the higher the profit volatility. This paper can also use the volatility of corporate profits to measure the level of corporate financial risks. The calculation formula for the volatility of financial risk profits is:

Where $\delta_{i,t}$ is the operating risk (profit volatility) of the ith company in year t; $EBIT_{i,t}$ is the earnings before interest, tax, depreciation and amortization of the ith company in year t; $A_{i,t-1}$ is the total assets of the ith company in year t-1. As shown in the formula, this paper calculates the operating risk using the standard deviation of the rolling values of the earnings before interest, tax, depreciation and amortization rate from year t-4 to t-1 (four years). In addition, since the operating risk calculated

by this method does not follow a normal distribution, this paper calculates the cumulative distribution probability of the standard deviation of the earnings before interest, tax, depreciation and amortization rate representing operating risk, and uses this to measure operating risk (Risk).

$$\delta_{i,t} = \sqrt{\frac{1}{T-1}\sum_{t=1}^{T}\left(E_{i,t} - \frac{1}{T}\sum_{t=1}^{T}E_{i,t}\right)^2} \mid T = 4 \tag{5}$$

$$E_{i,t} = \frac{EBIT_{i,t}}{A_{i,t-1}} \tag{6}$$

4.3.2 Re-selecting samples

Considering the impact of the 2015 stock market crash on corporate operating activities, this paper excludes the 2015 samples and re-conducts the regression. The regression results are shown in column (3) of Table 4-3. The regression results all indicate that supply chain finance has a significant impact on reducing corporate financial risks, and the results of this paper are relatively robust.

Table 4-3 Robustness Test

	(1)	(2)	(3)
	DD	*Risk*	
SCF	-5.0775***	-0.2137***	0.0535***
	(-16.345)	(-5.448)	(4.103)
ROE	-0.0006	-0.0007	-0.0000
	(-0.157)	(-1.477)	(-0.138)
Size	0.0075	0.0034	0.0005
	(0.227)	(0.871)	(0.406)
Growth	-0.7866***	0.0551***	-0.0170***
	(-10.333)	(6.109)	(-5.358)
CFO	4.4300***	0.0517	0.1064***
	(8.205)	(0.801)	(5.163)
IDR	0.3403	-0.0674	-0.0380*
	(0.597)	(-0.954)	(-1.784)
Top1	-0.0163***	0.0011***	0.0000
	(-7.391)	(3.778)	(0.423)
Dual	-0.2819***	-0.0068	-0.0081***
	(-4.368)	(-0.837)	(-3.382)
Lev	-0.6969***	0.0105*	0.0054**
	(-13.710)	(1.682)	(2.479)
Rfa	0.3010	0.0053	0.0534***
	(1.139)	(0.177)	(5.101)
_cons	9.8944***	0.5538***	0.0722**
	(12.752)	(5.968)	(2.486)
Industry	Yes	Yes	Yes
Year	Yes	Yes	Yes
N	8230	5657	7340
r2_a	0.4322	0.0530	0.0514

4.4 Mechanism Analysis

The previous research shows that supply chain finance will reduce corporate financial risks, and the coefficient between them is significantly negative at the 1% level. On the basis of H1, this paper further

explores the mechanism between supply chain finance and corporate financial risks, and tests whether supply chain finance reduces corporate financial risks through two mechanisms: reducing corporate financing constraints and agency costs (as shown in Table 4-4).

Table 4-4 Mechanism Analysis Results

	(1)	(2)
	SA	*Agc*
SCF	3.6439***	-0.0154***
	(21.886)	(-5.840)
ROE	-0.0099***	-0.0001***
	(-4.864)	(-3.200)
Size	-0.0839***	-0.0008***
	(-5.095)	(-3.320)
Growth	-0.2546***	0.0003
	(-4.759)	(0.446)
CFO	-16.7706***	0.0612***
	(-58.060)	(14.251)
IDR	0.5941*	-0.0000
	(1.954)	(-0.005)
Top1	-0.0142***	-0.0001***
	(-12.469)	(-4.071)
Dual	-0.1570***	0.0020***
	(-4.690)	(3.920)
Lev	0.9046***	-0.0014***
	(31.207)	(-3.406)
Rfa	3.5463***	0.0022
	(26.549)	(1.021)
_cons	1.2873***	0.0504***
	(3.162)	(8.588)
Industry	Yes	Yes
Year	Yes	Yes
N	8230	8039
r2_a	0.6211	0.2253

First, we analyze the impact of supply chain finance on corporate financing constraints. The regression results reported in column (1) of Table 4-4 show that the regression coefficient of SCF is significantly positive at the 1% confidence level, indicating that supply chain finance significantly reduces corporate financing constraints, which supports the assertion of this paper.

Second, we analyze the impact of supply chain finance on corporate agency costs. The regression results reported in column (2) of Table 4-4 show that the regression coefficient of SCF is significantly negative at the 1% confidence level, indicating that supply chain finance significantly reduces corporate agency costs, which supports the assertion of this paper.

5. Heterogeneity Test

The effect of supply chain finance varies among enterprises of different natures. This paper divides the samples into two groups, "state-owned enterprises-private enterprises" and "large-scale enterprises-small and medium-sized enterprises", from the aspects of enterprise nature and scale to study the impact of supply chain finance on corporate financial risks in different contexts. First, it can be seen from columns (1) and (2) of Table 5-1 that supply chain finance is significantly positively correlated with the financial risks of state-owned enterprises at the 1% level, while the relationship between supply chain finance and the financial risks of private enterprises is not significant. Private enterprises in supply chain finance, based on real transaction backgrounds, rely on core enterprise credit or the overall performance

capacity of the supply chain for lending, and are more likely to obtain government policy support and the favor of financial institutions, thereby more effectively coping with financial risks. Second, this paper divides the samples into two groups, "large-scale enterprises" and "small and medium-sized enterprises", based on the median of enterprise asset size (Size). It can be seen from columns (3) and (4) of Table 5-1 that the supply chain finance operation of large-scale enterprises is significant, while the role of supply chain finance of small and medium-sized enterprises is not significant. Large-scale enterprises occupy a dominant position in the supply chain and have strong bargaining power over suppliers and customers. In the supply chain finance model, they can strive for more favorable conditions by virtue of this advantage. Therefore, the role of supply chain finance will be more significant for them.

Table 5-1 Heterogeneity Test

	State-owned Enterprises	Private Enterprises	Large-scale Enterprises	Small and Medium-sized Enterprises
SCF	0.066	0.054***	0.057***	0.030
	(1.175)	(4.203)	(3.468)	(1.394)
ROE	-0.000	-0.000	-0.000	-0.000
	(-0.680)	(-0.974)	(-0.271)	(-1.047)
Size	-0.004	0.001	0.003	0.003
	(-0.660)	(0.466)	(1.329)	(1.085)
Growth	-0.013	-0.018***	-0.014***	-0.024***
	(-0.970)	(-6.175)	(-3.965)	(-4.942)
CFO	0.064	0.118***	0.141***	0.077***
	(0.829)	(5.737)	(4.796)	(2.842)
IDR	-0.227**	-0.028	-0.096***	0.031
	(-2.326)	(-1.372)	(-3.347)	(1.103)
Top1	0.001***	-0.000	0.000	0.000
	(3.123)	(-0.206)	(0.108)	(0.220)
Dual	-0.011	-0.007***	-0.005	-0.010***
	(-0.691)	(-3.089)	(-1.446)	(-3.198)
Lev	0.009	0.005**	0.004*	0.010**
	(1.523)	(2.025)	(1.799)	(2.092)
Rfa	0.009	0.058***	0.054***	0.059***
	(0.227)	(5.508)	(3.715)	(4.274)
_cons	0.132	0.077***	0.047	0.010
	(1.092)	(2.692)	(1.035)	(0.175)
Industry	Yes	Yes	Yes	Yes
Year	Yes	Yes	Yes	Yes
N	506	7625	4321	3909
r2_a	0.129	0.051	0.071	0.056

6. Research Conclusions and Policy Recommendations

This paper theoretically analyzes the impact of supply chain finance on corporate financial risks and its mechanism, and conducts an empirical test using relevant data of China's A-share listed companies from 2010 to 2020. The research results show that: (1) Supply chain finance has a significant reducing effect on corporate financial risks. (2) From the perspective of the impact mechanism, supply chain finance reduces corporate financial risks mainly through two paths:

reducing corporate financing constraints and agency costs. (3) The effect of supply chain finance varies due to the different regions and scales of enterprises. The inhibitory effect of supply chain finance is more significant in private enterprises and large-scale enterprises.

Based on the above research results, this paper puts forward the following policy recommendations: (1) The state and government should continue to promote the development of supply chain finance and increase support for enterprise supply chains. First, strengthen policy guidance and institutional guarantees. Formulate special support policies, provide tax reductions, financial discounts and other preferential treatments to financial institutions that carry out supply chain finance business and effectively reduce enterprise financing costs, so as to encourage more financial institutions to participate. At the same time, improve the laws and regulations related to supply chain finance, fill legal gaps, and ensure the safety and standardization of relevant transactions. Second, build public service platforms. Invest more resources to establish national or regional public service platforms for supply chain finance, integrate data from multiple departments such as industry and commerce, taxation, customs, and judiciary, break down information barriers, provide financial institutions with comprehensive, accurate, and real-time enterprise information, help them evaluate risks more efficiently, and thereby improve their lending services to enterprises. (2) Financial institutions should innovate more financial products and services. Encourage banks and other financial institutions to deeply understand the characteristics of various industries, and develop customized products according to the actual needs of enterprises in different industries and different supply chain scenarios, such as advance payment financing and inventory pledge financing based on real orders. Through these diversified financing products, enterprises can find suitable financing methods regardless of their position in the production or sales process. At the same time, support financial institutions to use high-tech means to make supply chain financial services safer and more efficient.

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