China Accounting and Finance Review

Can regional trust account for variations in access to trade credit? Evidence from Chinese firms

Yang Xu, Yuhui Li and Yang Wu
School of Finance, Anhui University of Finance and Economics, Bengbu, China, and
Xu Tian
School of Public Policy and Administration, Nanchang University, Nanchang, China

Received 12 April 2025
Revised 14 December 2025
16 March 2026
Accepted 11 April 2026

Abstract

Purpose – As a vital financial instrument, trade credit plays a significant role in firm development and supply chain stability. While previous studies have primarily analyzed its determinants from economic and formal institutional perspectives, this paper attempts to explain variations in inter-firm trade credit through the lens of "regional trust" as an informal institutional factor.

Design/methodology/approach – This study employs a Two-way Fixed Effects Model to conduct a regression analysis on 20,975 samples from 3,227 A-share listed firms in China over the period from 2011 to 2022, examining the impact of regional trust on trade credit. To address potential endogeneity issues, we use the event that the region where the firm is located has won the "National Civilized City" title to build a difference-in-differences model for testing.

Findings – Regional trust has a significant positive impact on firms' access to trade credit, especially in regions with low information transparency and high levels of economic policy uncertainty. Additionally, firms located in regions that were awarded the "National Civilized City" title experience a significant increase in trade credit. Further analysis reveals that short-term trade credit constitutes a larger proportion of the trade credit obtained by firms, likely due to its flexibility and ability to meet immediate funding needs.

Originality/value – This study examines the important role of regional trust in access to trade credit from the perspective of informal institutions. It enriches our understanding of the role of informal institutions in economic behavior and provides empirical evidence for relevant policy-making.

Keywords Regional trust, Trade credit, Firm reputation, Difference-in-differences

Paper type Research article

1. Introduction

Trade credit plays a vital role in alleviating short-term funding pressures, optimizing cash flow, and promoting supply chain stability (Li, Zhu, & Xu, 2025; Li, Ng, & Saffar, 2025). It refers to deferred payment arrangements granted by sellers to buyers in goods and services transactions (credit that a firm receives from its suppliers) (Garcia-Teruel *et al.*, 2010). As a vital source of firm financing (Fisman & Love, 2003; Miao, Zhu, Deng, Xiaohu, & Wen, 2024), it serves not only as a crucial financial instrument in international trade but also as a key factor in reducing transaction risks, strengthening regional cooperation, and supporting the development of small- and medium-sized firms. However, trade credit varies significantly across different firms. Previous research on trade credit determinants has primarily focused on three levels: policy regulations, supply chains, and firms. Specifically, at the policy level, factors such as the implementation of *the Social Insurance Law* (Gao & Gao, 2023), unconventional monetary policies (Zhou *et al.*, 2024), and mixed-ownership reforms (Song & Li, 2024) all influence firm trade credit. At the supply chain level, factors such as supply chain stability (Zhang, Mo,

© Yang Xu, Yuhui Li, Yang Wu and Xu Tian. Published in *China Accounting and Finance Review*. Published by Emerald Publishing Limited. This article is published under the Creative Commons Attribution (CC BY 4.0) licence. Anyone may reproduce, distribute, translate and create derivative works of this article (for both commercial and non-commercial purposes), subject to full attribution to the original publication and authors. The full terms of this licence may be seen at http://creativecommons.org/licences/by/4.0/.

China Accounting and Finance Review
Emerald Publishing Limited
e-ISSN: 2307-3055
p-ISSN: 1029-807X
DOI 10.1108/CAFR-04-2025-0041

Downloaded from http://ftp.nowpublishers.com/cafr/article-pdf/doi/10.1108/CAFR-04-2025-0041/11584251/cafr-04-2025-0041en.pdf by guest on

Hu, & Zhang, 2024), supply chain transparency (Wang, Liu, Chan, & Zhang, 2023), and geographic proximity (Ouyang, Xiong, Liu, & Yao, 2024) correlate with trade credit. At the firm level, factors such as firm size (McGuinness & Hogan, 2016), innovation level (Li, Sensoy, Song, & Zhang, 2023; Li, Ang, Chewie, & Lu, 2023), and digitalization level (Hu *et al*., 2024) can explain variations in trade credit. These studies primarily focus on economic determinants, with relatively fewer investigations into non-economic factors.

Informal institutions such as culture, customs, trust, and reputation, though lacking legal form, play a significant role in economic behavior and social interactions. These informal institutions profoundly influence economic activities by shaping individual and collective behavioral patterns. Regional trust, in particular, which is defined as the level of trust one region holds toward another, serves as a crucial informal institution with vital implications in the economic sphere. Specifically, regional trust reduces transaction costs, alleviates debt pressures, enhances economic returns and performance, and fosters innovation activities. Wang and Xu (2024) propose that strengthening regional trust reduces transaction costs in M&A processes, thereby increasing the frequency and scale of interregional M&A activities and enhancing their economic benefits. Cao, Gong, Gu, Li, and Liu (2024) find that as regional trust levels rise, the insured credit spreads of municipal firm bonds significantly decrease, alleviating debt pressures for municipal firms. Furthermore, Bischoff, Hipp, and Runst (2023) concluded that regional generalized trust positively correlates with firm innovation, particularly evident in fostering innovation among small- and medium-sized firms. Given these effects, a natural and crucial question arises: Can regional trust partially explain variations in trade credit? Considering trust's central role in facilitating cooperation and reducing transaction frictions, it is reasonable to infer that regional trust likely exerts a positive influence on firms' trade credit.

This study employs sample data from 3,227 A-share listed firms in China between 2011 and 2022, comprising 20,975 observations, to empirically analyze the impact of regional trust on trade credit. We measure trade credit by calculating the ratio of a firm's accounts payable to total assets. Utilizing data from the China Entrepreneur Survey System, we derive an indicator representing the degree of trust across regions after a series of processing steps. The findings reveal a significant positive correlation between regional trust and firm trade credit. Specifically, a one-standard-deviation increase in regional trust raises trade credit by 3.34% points relative to the mean level. This result demonstrates that regional trust, as an informal institution, promotes trade credit, highlighting the crucial role of informal institutions in economic activities.

To ensure the robustness of our findings, we implemented a series of meticulous validation steps. First, we substitute the measurement methods for trade credit and regional trust. We adjust the trade credit metric from accounts payable to total assets to other relevant financial indicators, and replace regional trust with actual foreign direct investment and the business credit environment index. After these variable substitutions, we found that our original conclusions remained robust. Furthermore, we control for firm default risk in our model to eliminate potential confounding factors. After accounting for default risk, we find that the regression coefficient for regional trust on trade credit remains positive, though its significance decreased compared to the baseline regression. This reveals two conclusions. First, trusted regions exhibit lower default risk, thereby securing greater trade credit. Second, a "trust bias" may exist. Firm default rates cannot fully explain the correlation between regional trust and trade credit, suggesting that regional trust exerts an influence beyond its actual performance level. This may stem from cognitive inertia, where individuals tend to assign higher levels of trust to well-performing firms than they actually deserve. Furthermore, to eliminate the external impact of the COVID-19 pandemic, we replaced the sample period by excluding data from 2020 to 2022. The results show that the relationship between regional trust and trade credit remains robust.

We further explore the potential effects of firm information transparency, economic policy uncertainty, and the nature of firm property rights on this relationship. We treat firm

Downloaded from http://ftp.nowpublishers.com/cafr/article-pdf/doi/10.1108/CAFR-04-2025-0041/11584251/cafr-04-2025-0041en.pdf by guest on

information transparency and economic policy uncertainty as moderating variables, constructing interaction terms with the independent variable respectively, and incorporating them into the model for regression analysis with the dependent variable. The findings reveal that in firms with lower information transparency, regional trust exerts a more pronounced positive effect on trade credit. This indicates that under conditions of information asymmetry, regional trust effectively mitigates information deficiencies and facilitates credit transactions between firms. Furthermore, we find that the interaction term between economic policy uncertainty and regional trust exerts a significantly positive effect on trade credit, suggesting that in uncertain environments, trust, as a form of social capital, enhances firms' capacity for trade credit even more. However, by comparing the impact of regional trust across state-owned and non-state-owned enterprises, we do not observe any moderating effect based on ownership structure.

To address endogeneity issues such as omitted variables, this study employs difference-in-difference methods for analysis. We manually compile lists of all National Civilized Cities awardees, treating the "National Civilized City" title as an exogenous shock. A difference-in-difference model is constructed for causal identification. Results indicate that when a firm's region receives the "National Civilized City" title, trade credit significantly increases. This finding further confirms the substantial influence of regional trust on trade credit.

We further examine the impact of regional trust on both short- and long-term trade credit. We categorize trade credit by time horizon into short-term trade credit (within one year) and long-term trade credit (one year or longer). Our findings indicate that regional trust primarily stimulates trade credit by increasing short-term trade credit. This may relate to the flexibility and quick returns characteristic of short-term investments versus the higher opportunity costs and uncertainty of long-term investments. Particularly in high-trust regions, firms can more readily access short-term credit support, enabling them to respond swiftly to market opportunities and reduce capital turnover costs. Consequently, firms prefer the flexible payment method of short-term trade credit to facilitate transactions, while suppliers are more willing to extend short-term credit support to accelerate capital turnover and enhance transaction efficiency. We also examine how the degree of trust in others affects a firm's provision of trade credit. Results indicate that firms in regions with higher levels of interpersonal trust extend more trade credit. This suggests that trust influences not only firms' ability to access trade credit but also their willingness to extend it to others. Finally, to investigate the temporal dynamics of regional trust's role in promoting trade credit, we conducted regression analysis using interaction terms between year dummies and the independent variable. We find that over time, the positive impact of regional trust on trade credit does not diminish, indicating that this effect is long-lasting and stable.

The contributions of this study are primarily reflected in the following aspects: First, we enrich the existing literature on factors influencing trade credit. Previous studies have primarily focused on the effects of policy regulations, supply chain factors, and firm-level variables on trade credit, such as bankruptcy judicial reforms (Chen & Liu, 2024), unconventional monetary policies (Zhou *et al.*, 2024), mandatory International Financial Reporting Standards (IFRS) adoption (Li, Ng, & Saffar, 2021), supply chain transparency (Wang *et al.*, 2023), stability of upstream-downstream relationships (Zhang *et al.*, 2024), firm green innovation (Li, Sensoy, *et al.*, 2023; Li, Ang, *et al.*, 2023), mandated sustainability disclosure (Guo, Ng, Yeung, & Zhang, 2025), and bargaining power (Wang, Xu, & Yang, 2024). However, few studies have examined the impact of informal institutions on trade credit (Chen, Arnoldi, & Chen, 2020). We expand this research by examining regional trust and supplement existing research on the factors influencing trade credit. Second, our analysis of trade credit is more nuanced, revealing differentiated effects of regional trust on short-term versus long term trade credit and focusing on the temporal dynamics of these effects. Previous literature predominantly examines the determinants of total trade credit (Bastos & Pindado, 2013; Ouyang *et al.*, 2024; Tingbani, Afrifa, Tauringana, & Ntim, 2024), neglecting its term

Downloaded from http://ftp.nowpublishers.com/cafr/article-pdf/doi/10.1108/CAFR-04-2025-0041/11584251/cafr-04-2025-0041en.pdf by guest on

structure and dynamic effects. Third, prior research has predominantly explored the positive effects of regional trust, such as fostering firm innovation (Bischoff, Runst, & Bizer, 2024), mitigating market risks (Cao *et al.*, 2024), promoting firm financialization (Xiao & Chen, 2025), and enhancing firm ESG performance (Zhou *et al.*, 2024). However, we found evidence of a potential "trust bias". Controlling for default risk reveals that regional trust still significantly influences trade credit, indicating that firms located in regions with higher levels of regional trust benefit disproportionately from trade credit relative to their actual performance. Fourth, we examine the impact of informal institutions on trade credit provision. Previous literature has examined the impact of factors such as supplier listing status (Abdulla, Dang, & Khurshed, 2020), digital transformation (Liu & Wang, 2023), ESG ratings (Yin, Han, Shao, Dai, & Shou, 2025), and cultural diversity (Ma, Wang, & Yuan, 2025) on trade credit provision. However, few studies have examined the impact from the perspective of informal institutions. Our research explores this influence, offering new insights into the informal institutional drivers of trade credit decisions.

The remainder of this paper is organized as follows. Section 2 presents the literature review and research hypotheses. Section 3 describes the research design. Section 4 presents the empirical results. Section 5 offers further analysis. Section 6 provides conclusions and implications.

2. Literature review and research hypotheses

2.1 Literature review

Trust, as a form of social capital, plays a crucial role in economic transactions. Existing literature primarily analyzes its impact through three dimensions: enhancing regional trust to boost returns and performance, fostering innovation, and expanding the scope of economic activities. First, regarding improved returns and performance, regional trust can increase merger and acquisition (M&A) returns by reducing transaction costs and increasing the frequency and volume of interregional M&A activities (Wang & Xu, 2024). A significant positive correlation exists between social trust and firm ESG performance, with institutional quality and economic development serving as two channels influencing this performance (Zhu & Wang, 2024). Research also indicates that in countries with higher trust levels, firms tend to exhibit superior corporate social responsibility (CSR) performance (Zhu & Wagner, 2024). Moreover, the effect of social trust on CSR is influenced by peer firms' CSR practices and Confucian values (Chen, Chen, & Jebran, 2021). Second, regarding innovation, social trust can promote firm green innovation (Zhang & Chen, 2023), with this relationship being particularly pronounced in the innovation of small- and medium-sized firms (Bischoff *et al.*, 2023). Furthermore, in terms of expanding the scope of economic activities, regions with higher social trust levels have more large firms than those with lower social trust levels (Ding & Ma, 2024). Chen and Zeng (2024) found that social trust promotes innovation and economic growth by facilitating firms' participation in specialization through reduced search and contract costs. However, social trust may have limitations. Tan, Yan, and Zou (2024) found that in regions with higher social trust, firms may abuse social trust through rent-seeking behavior. Although existing literature has explored the role of trust from multiple perspectives, research on the impact of regional trust on trade credit remains relatively scarce. This study empirically reveals the significant role of regional trust in trade credit, offering new insights into understanding the role of trust in firm financial decision-making.

Related literature also examines factors influencing trade credit. First, macroeconomic policies impact trade credit. At the policy and regulatory level, the enactment or implementation of new policies or regulations signifies changes in the macroeconomic environment, thereby affecting firm trade credit. For instance, Gao and Gao (2023) found that the implementation of *the Social Insurance Law* had a negative impact on the redistribution of trade credit. Li, Sensoy *et al.* (2023) and Li, Ang, *et al.* (2023) observed that improvements in

Downloaded from http://ftp.nowpublishers.com/cafr/article-pdf/doi/10.1108/CAFR-04-2025-0041/11584251/cafr-04-2025-0041en.pdf by guest on

labor protections led to a significant reduction in trade credit extended by suppliers. Unconventional monetary policies, by narrowing bond credit spreads, can substantially increase firms' trade credit provision, with this effect being more pronounced in provinces characterized by higher marketization, greater financial development, and higher capital misallocation (Zhou *et al.*, 2024). Song and Li (2024) and Chen and Liu (2024) indicate that the intensity of mixed-ownership reforms and the implementation of bankruptcy judicial reforms exert significant negative effects on trade credit. Technical export restrictions (TERs) also impact firm trade credit financing, with more pronounced negative effects on firms with high financial risk or high product risk (Li, Wang, Liu, & Han, 2024). Second, characteristics at the supply chain level also influence firms' access to trade credit. For instance, firms with lower supply chain transparency receive higher trade credit (Wang *et al.*, 2023). Geographic proximity facilitates suppliers' access to soft information, enabling them to make more informed credit decisions and thereby increasing trade credit (Ouyang *et al.*, 2024). The stability and concentration of upstream-downstream relationships also influence trade credit: supplier stability positively affects trade credit obtained by key firms, while supplier concentration has a negative impact (Zhang *et al.*, 2024). Finally, at the firm level, green innovation can significantly enhance access to trade credit (Li, Sensoy, *et al.*, 2023; Li, Ang, *et al.*, 2023), and innovation-oriented firms extend more trade credit to customers than efficiency-oriented firms (Cao, Chen, & Lee, 2022). Shared managers and directors can assist firms in obtaining trade credit by reducing information asymmetry (Ding, Liu, Shi, Wang, & Wu, 2023). Firm digital transformation can improve operational, R&D, and governance efficiency, enabling firms to secure greater trade credit financing (Hu, Yang, Zhu, & Uddin, 2024). Additionally, merchant guild culture and management capabilities influence firm trade credit. Firms located in regions with stronger merchant guild cultural influence face fewer financing constraints and obtain more trade credit (Xiu, Liu, Feng, & Yin, 2023). Firms with stronger management capabilities inspire greater confidence or trust among upstream and downstream business partners, thereby securing more favorable trade credit terms (James, Ngo, & Wang, 2023). Furthermore, customers with strong bargaining power obtain more trade credit, whereas suppliers with strong bargaining power extend less trade credit (Wang *et al.*, 2024). Although existing literature has examined factors influencing trade credit from perspectives such as policy regulations, supply chains, and the firm level, research on the impact of informal institutions remains relatively scarce. Through empirical analysis, this study adopts an informal institution perspective and reveals the significant role of regional trust in trade credit. It enriches our understanding of the role of informal institutions in economic behavior and provides empirical evidence for relevant policy formulation.

2.2 Research hypotheses

Trust is an informal institution that cannot be acquired through markets or external coercion in the short-term. Its formation relies on long-term, repeated social interactions and the accumulation of reputation (Wu, Gong, Huang, & Tian, 2022). It reduces information-gathering costs prior to transactions and lowers negotiation, monitoring, and default resolution costs afterward (Coleman, 1988; Williamson, 1979; Wu *et al.*, 2022). Consequently, it is regarded as the critical institutional foundation enabling the sustained existence of trade credit and the broader financial services sector. When a region is labeled as "high-trust" due to historical, cultural, or religious traditions and long-standing collective behavioral norms, local firms gain a significant "reputation premium", thereby enjoying higher credit value in commercial dealings (Fernandez, 2021; Li, Wang, & Wang, 2017; Shi, Ho, & Liu, 2023; Yu, Ye, & Yang, 2025). This reliance is particularly pronounced in trade credit, which is an unsecured and unguaranteed informal financing mechanism that lacks both liquid collateral buffers and external credit enhancement from third-party institutions (Giannetti, Burkart, & Ellingsen, 2011). Based on the above analysis, this paper hypothesizes that firms located in regions with higher levels of trust will access greater amounts of trade credit.

Downloaded from http://ftp.nowpublishers.com/cafr/article-pdf/doi/10.1108/CAFR-04-2025-0041/11584251/cafr-04-2025-0041en.pdf by guest on

H1. Firms located in regions with higher levels of regional trust access more trade credit.

Research indicates that information asymmetry significantly impacts firms' access to external financing and its cost, particularly for small- and medium-sized firms (Kallberg & Udell, 2003). In trade credit relationships, enhancing buyer transparency benefits both parties (Zhang, Liu, Li, & Xing, 2023). For instance, Zhang, Ma, Su, and Zhang (2014) found that suppliers tend to extend more trade credit to firms with lower levels of information asymmetry. When information asymmetry between suppliers and buyers diminishes, suppliers gain incentives to extend greater trade credit (Cheng, Ioannou, & Serafeim, 2014; Petersen & Rajan, 1997). This occurs because highly transparent firms provide clear and verifiable financial disclosures, reducing uncertainty about their solvency and liquidity. Such transparency makes suppliers more willing to offer favorable trade credit terms, such as extended payment periods and larger credit lines. When regional trust levels are high, a favorable credit environment can incentivize firms to disclose information more transparently, mitigating information asymmetry to some extent and reducing transaction costs arising from it (Saeed & Riaz, 2021). This may help them secure greater trade credit from suppliers. Therefore, this paper proposes Hypothesis 2.

H2. The positive effect of regional trust on trade credit is more pronounced under conditions of greater information asymmetry.

Research indicates that economic policy uncertainty exacerbates firms' financial constraints by simultaneously reducing their return on assets and increasing their external financing costs (Pástor & Veronesi, 2013; Phan, Sharma, & Tran, 2018), thereby adversely affecting firm financing and investment (Hussain *et al.*, 2023; Jory, Khieu, Ngo, & Phan, 2020). Furthermore, economic policy uncertainty may increase cash flow volatility, thereby elevating default risk (Gulen *et al.*, 2016). This leads to reduced trade credit extended by supplier firms to client firms, resulting in a negative impact of economic policy uncertainty on trade credit (D'Mello & Toscano, 2020; Jory *et al.*, 2020). However, when regional trust levels are high, firms located in that region possess greater reputational and credit value. This can alleviate supplier firms' concerns about the liquidity risk of their customer firms and correct their overestimation of the customer firms' default risk, thereby mitigating the negative impact of economic policy uncertainty on trade credit. Therefore, we propose the following Hypothesis 3.

H3. The positive effect of regional trust on trade credit is more pronounced under conditions of higher economic policy uncertainty.

State-owned enterprises, owing to their close ties with the government, often enjoy greater trust and access to resources, including investment and credit. In contrast, non-state-owned enterprises typically face a more challenging financing environment and trust deficits (Tan, Zhu, Zeng, & Gao, 2014). Lacking local government credit endorsements, non-state-owned enterprises struggle to secure bank loans (Cheng & Lu, 2023) and face more acute financing constraints (Aghion, Askenazy, Berman, Cette, & Eymard, 2012), leading them to rely more heavily on trade credit financing (Allen, Qian, & Qian, 2005; Wang, Wu, Yin, & Zhou, 2019). Regional trust, as a form of social capital, can compensate for the lack of credit endorsements for non-state-owned enterprises, alleviating lenders' concerns about potential default risks and thereby increasing the availability of trade credit for these enterprises. Therefore, this study proposes the following research hypothesis H4.

H4. The positive effect of regional trust on trade credit is more pronounced among non-state-owned enterprises.

Downloaded from http://ftp.nowpublishers.com/cafr/article-pdf/doi/10.1108/CAFR-04-2025-0041/11584251/cafr-04-2025-0041en.pdf by guest on

3. Research design

3.1 Sample selection and data sources

This study examines the impact of regional trust on trade credit using A-share data from listed Chinese firms between 2011 and 2022 as the initial sample. The rationale for selecting this data period is as follows: (1) Since 2011, China's rapid economic growth has seen the number of listed firms exceed 5,000, providing a rich sample for research. (2) Between 2011 and 2022, China underwent economic restructuring and transformation, with expanding foreign trade and investment. As a vital pillar of international trade, trade credit significantly grew in scale and importance. These shifts provide a unique context for examining how regional trust influences trade credit.

To ensure the accuracy and reliability of the research, we processed the sample through the following steps: (1) First, we excluded listed firms in the financial sector to eliminate interference with the results; (2) Second, we excluded listed companies under special treatment status (ST, indicating financial or other irregularities) and delisting risk warning status (*ST, indicating more severe financial or operational issues with a risk of termination of listing); (3) We further excluded samples with missing values in key variables; (4) Finally, all continuous variables underwent tail trimming at the 1% and 99% percentiles. Following these steps, we obtained a total of 20,975 sample observations from 3,227 A-share listed companies. The firm financial data used in this paper are sourced from the CSMAR (China Stock Market & Accounting Research) Database. The data on Gross Domestic Product (GDP) and regional legal environment data are obtained from the National Bureau of Statistics of China. Regional trust data are derived from the China Entrepreneur Survey System.

CSMAR is a research-oriented precision database in the economic and financial fields developed by Shenzhen Xishima Data Technology Co., Ltd. As China's largest, most accurate, and most comprehensive financial and economic database, its primary applications include academic research, quantitative investment analysis by financial institutions, and policy formulation. The China Entrepreneur Survey System was established in 1993 as a research institution jointly initiated by the Institute of Public Management and Human Resources at the Development Research Center of the State Council, the Department of Industry, Transportation, and Trade at the Research Office of the State Council, the Bureau of Enterprise Distribution at the State-owned Assets Supervision and Administration Commission, the General Department of the National Bureau of Statistics, the Research Department of the China Enterprise Confederation, and the Research Office of the All-China Federation of Industry and Commerce. Its establishment was approved by the Development Research Center of the State Council. Since its inception, the system has conducted an annual large-scale questionnaire survey primarily targeting firm legal representatives. Its findings not only provide a scientific basis for government decision-making but also offer rich empirical data support for numerous theoretical studies (Jing, Hu, Zhou, Guo, & Li, 2025; Liu, Tang, Li, & Luo, 2024).

3.2 Variable description and model design

3.2.1 Variable description. 3.2.1.1 Independent variable. We use Trust1 to measure regional trust. This study employs regional trust survey data from the China Entrepreneur Survey System, which is weighted and assigned values to derive provincial regional trust scores (Wang & Xu, 2024). In the 2000 survey distributed to enterprises across China's 31 provinces, autonomous regions, and municipalities, the trust-related question was designed as "Based on your experience, which five regions do you consider to have the most trustworthy enterprises (please rank in order)." The ranking data obtained for each province were then assigned values, with the top-ranked region receiving 5 points, the second-ranked 4 points, and so on. Based on this, the ranking values were weighted by each province's percentage of votes for each position and summed. Finally, the natural logarithm was taken to obtain the regional trust data for each province. Higher Trust1 values indicate a greater level of trust in the region.

Downloaded from http://ftp.nowpublishers.com/cafr/article-pdf/doi/10.1108/CAFR-04-2025-0041/11584251/cafr-04-2025-0041en.pdf by guest on

To assess result robustness, we also use actual foreign investment (INV) (Chen & Wu, 2023; Ehigiamusoe, Chen, Dogan, & Binsaeed, 2025) and the business credit environment index (ENV) (Cao *et al.*, 2024) as proxies for regional trust.

3.2.1.2 Dependent variable. The dependent variable in this study is trade credit (TC1), measured as the ratio of accounts payable to total assets (Fisman & Love, 2003; Giannetti *et al.*, 2011; Li, Zhu, *et al.*, 2025; Li, Ng, *et al.*, 2025; Petersen & Rajan, 1997). Subsequently, the ratio of accounts payable to total liabilities (TC2) (Abdulla, Dang, & Khurshed, 2017; Ding *et al.*, 2023; Fisman & Love, 2003; Kong, Pan, Tian, & Zhang, 2020; Ouyang *et al.*, 2024; Xiao *et al.*, 2025) and accounts payable to cost of goods sold (TC3) (Costa & Habib, 2021; Garcia-Appendini & Montoriol-Garriga, 2013) as alternative dependent variables. Furthermore, this study decomposes accounts payable into current and non-current components to examine how short-term and long-term trade credit evolve.

3.2.1.3 Control variables. Apart from regional trust, numerous factors at both the firm and regional levels may influence trade credit. Controlling for these factors helps to more accurately estimate the impact of regional trust on trade credit. For example, firm size is correlated with the ability to obtain trade credit, as larger firms may have easier access to credit. Therefore, controlling for firm size is necessary to avoid the confounding effects of scale. Firms with different ownership structures (state-owned enterprises vs. non-state-owned enterprises) may differ in their ability to acquire resources and credit. Controlling for ownership structure helps to eliminate the direct impact of such differences in trade credit. The return on assets (ROA) reflects a firm's profitability, and firms with higher profitability are likely to be more favored by creditors. Fixed assets, such as buildings and equipment, typically require substantial capital investment and have longer usage cycles. Their value recovery and liquidity are relatively weak. Firms with a higher proportion of fixed assets may rely more on long-term funding, which could affect their access to trade credit. Revenue growth rate reflects a firm's growth potential, and firms with higher growth potential may have easier access to trade credit. Firm age may be associated with stability and credibility, and controlling for firm age helps to analyze the impact of firm maturity on trade credit. Cash flow status directly affects a firm's debt repayment ability. A good cash flow position implies stronger short-term debt repayment capacity, making it easier for the firm to obtain trade credit support. Bank credit, as an important financing channel for firms, also affects access to trade credit. Therefore, it is necessary to control for cash flow status and bank credit. Additionally, the level of regional economic development affects the overall credit environment and trust within firms, while the legal environment plays a crucial role in contract enforcement and trust-building among firms. Thus, it is essential to control for the interference of economic development and the legal environment.

Therefore, based on the above analysis and existing literature (Gong & Yang, 2025; Li *et al.*, 2024; Li, Zhu, *et al.*, 2025; Li, Ng, *et al.*, 2025) this study selects the following control variables: ownership structure (SOE), firm size (Size), return on assets (ROA), cash flow ratio (Cashflow), proportion of fixed assets (Fixed), bank credit (Bank), revenue growth rate (Growth), natural logarithm of firm age (Age), regional economic development level (GDP), and regional legal environment (Leg). Additionally, to eliminate the potential interference from unobservable macroeconomic conditions and industry-specific characteristics, this study also controls for year and industry fixed effects. The definitions of these variables are presented in Table 1.

3.2.2 Model design. Based on the aforementioned theoretical analysis and research hypotheses, this paper employs Model (1) to examine the relationship between regional trust and trade credit.

$$TC_{it} = \alpha_0 + \alpha_1 Trust_i + \alpha_2 Controls_{it} + YearFE + IndustryFE + \varepsilon_{it} \quad (1)$$

where, TC_{it} denotes trade credit, measuring firm access to trade credit; $Trust_i$ represents the level of trust in the region where the firm is located; $Controls_{it}$ is a set of control variables

Downloaded from http://ftp.nowpublishers.com/cafr/article-pdf/doi/10.1108/CAFR-04-2025-0041/11584251/cafr-04-2025-0041en.pdf by guest on

Table 1. Variable definitions

Variables	Definition
Trade credit variable	
TC1	Accounts payable divided by total assets
TC2	Accounts payable divided by total liabilities
TC3	Accounts payable divided by cost of goods sold
AP	The natural logarithm of (accounts payable plus one)
TCP	Trade credit provision, accounts receivable divided by total assets
STC	Short-term trade credit, accounts payable within one year divided by total assets
LTC	Long-term trade credit, accounts payable for one year or more divided by total assets
Regional trust variable	
Trust1	Level of trustworthiness
Trust2	Level of trust in others
INV	Actual foreign investment
ENV	Business credit environment index
Control variables	
SOE	Virtual variable, state-owned enterprise is 1, otherwise it is 0
Size	Take the natural logarithm of the total assets of the firm
ROA	Net profit divided by average total assets
Bank	The sum of short-term and long-term borrowings divided by total assets
Cashflow	Net cash flow divided by total current liabilities
Fixed	Fixed assets divided by total assets
Growth	Revenue growth divided by the total revenue of the previous year
Age	The natural logarithm of the company's establishment period
GDP	Per capita GDP
Leg	Number of lawyers per province divided by population
Other variables	
EDF	Probability of default
Rating	Transparency rating of firm information disclosure on Chinese Stock Exchanges
KV	Disclosure quality index
EPU1	Economic policy uncertainty index based on the South China Morning Post
EPU2	Economic policy uncertainty index based on people's daily and Guangming Daily

encompassing both firm-level and region-level factors; ε_{it} is the random disturbance term. Furthermore, to control for unobservable macroeconomic conditions and industry-specific differences, this study also incorporates year fixed effects and industry fixed effects. If α_1 is positive, it indicates that regional trust promotes trade credit, thereby validating H1.

4. Empirical findings

4.1 Descriptive statistics

The descriptive statistics are presented in Table 2. The table reveals significant variations in trust levels across provinces, with the maximum value being 5.389 and the minimum 1.411. Trade credit exhibits a maximum value of 0.377 and a minimum value of 0.001, indicating substantial disparities in trade credit among firms. This variability provides a research opportunity for this study. Furthermore, the mean value of trade credit stands at 0.097. This indicates that trade credit existing in the form of accounts payable constitutes approximately 10% of a firm's asset structure, highlighting its role as a significant component within the firm capital structure.

4.2 Benchmark regression results

To test H1, that firms located in regions with higher levels of regional trust access more trade credit, we conducted a regression analysis using Model (1). The results are shown in Table 3.

Downloaded from http://ftp.nowpublishers.com/cafr/article-pdf/doi/10.1108/CAFR-04-2025-0041/11584251/cafr-04-2025-0041en.pdf by guest on

Table 2. Descriptive statistics

VarName	Obs	Mean	SD	Min	Median	Max
TC1	20,975	0.097	0.070	0.001	0.080	0.377
Trust1	20,975	4.045	1.081	1.411	4.566	5.389
SOE	20,975	0.415	0.493	0.000	0.000	1.000
Size	20,975	22.491	1.351	19.681	22.305	26.430
ROA	20,975	0.036	0.059	−0.363	0.034	0.257
Bank	20,975	0.167	0.129	0.000	0.149	0.633
Cashflow	20,975	0.044	0.066	−0.199	0.043	0.267
Fixed	20,975	0.227	0.164	0.002	0.197	0.719
Growth	20,975	0.169	0.390	−0.652	0.107	3.541
Age	20,975	2.894	0.349	1.386	2.944	3.611
GDP	20,975	19090.124	11000.730	6026.700	17389.200	49335.202
Leg	20,975	4.673	4.234	0.712	3.013	21.507

Columns (1) and (2) reveal that regional trust exhibits a significant positive correlation with trade credit, which remains significant even after incorporating year and industry fixed effects. This indicates that firms located in regions with higher levels of trust access greater amounts of trade credit, thereby validating Hypothesis 1. We further quantified the magnitude of regional trust's impact on trade credit. We find that a one-unit change in trust leads to a 3.34% ($0.003 \times 1.081/0.097$) unit change in trade credit in the same direction, indicating this effect possesses significant economic implications.

4.3 Robustness tests

4.3.1 Substituting core variables. A single variable can be measured in multiple ways, and different measurement approaches may affect the reliability of research findings. To reduce measurement error, this study examines whether results are sensitive to different measurement methods by substituting core variable metrics. First, the ratio of accounts payable to total liabilities (TC2) (Abdulla *et al.*, 2017; Fisman & Love, 2003; Ouyang *et al.*, 2024; Ding *et al.*, 2023; Kong *et al.*, 2020) and the ratio of accounts payable to cost of goods sold (TC3) (Costa & Habib, 2021; Garcıa-Teruel and Martínez-Solano, 2010) were used as proxy variables for trade credit in the regression analysis. Second, actual foreign investment (INV) and the business credit environment index (ENV) are used as proxy variables for regional trust in the regression analysis. The level of actual foreign investment reflects the degree of confidence foreign investors have in a region's economic environment and policy stability. Higher actual foreign investment typically indicates that foreign investors hold greater confidence in the region's economic prospects and policy environment, demonstrating a willingness to commit substantial capital for long-term investment. The business credit environment index is a comprehensive credit-economic indicator that measures the quality of a city's market credit transaction environment, the level of trust among firms within the market, and the atmosphere for commercial cooperation. Therefore, actual foreign investment and the business credit environment index are selected as proxy variables for regional trust in the regression analysis. Actual foreign investment data was sourced from the CSMAR database, while the business credit environment index was derived from the *Blue Book of China's Urban Business Credit Environment Index*. This Blue Book represents the research outcomes of a collaborative initiative by institutions including the Institute of Enterprise Management Innovation and the Integrity Evaluation Research Center under the Chinese Academy of Management Sciences. Through collecting public information, statistical data, and enterprise survey data, a mathematical model is employed for comprehensive scoring, ultimately generating rankings and evaluation reports on urban business credit environments. This Blue Book not only provides investors, financial institutions, and government regulators with a reference for

Downloaded from http://ftp.nowpublishers.com/cafr/article-pdf/doi/10.1108/CAFR-04-2025-0041/11584251/cafr-04-2025-0041en.pdf by guest on

Table 3. Base regression results

Variables	TC1 (1)	TC1 (2)
Trust1	0.007***	0.003***
	(10.107)	(4.830)
SOE	0.011***	0.018***
	(9.932)	(16.773)
Size	0.009***	0.008***
	(21.011)	(18.654)
ROA	−0.206***	−0.153***
	(−19.573)	(−15.731)
Bank	−0.085***	−0.055***
	(−21.435)	(−15.213)
Cashflow	−0.021**	0.012
	(−2.442)	(1.529)
Fixed	−0.070***	−0.030***
	(−22.301)	(−9.455)
Growth	0.011***	0.011***
	(7.824)	(8.296)
Age	−0.008***	−0.002
	(−5.466)	(−1.224)
GDP	−0.000***	−0.000***
	(−9.956)	(−3.444)
Leg	0.003***	0.001
	(7.212)	(1.358)
Constant	−0.066***	−0.059***
	(−6.790)	(−6.136)
Year FE	No	Yes
Industry FE	No	Yes
N	20,975	20,974
R^2	0.098	0.324

Note(s): Table 3 reports the results of panel regressions designed to examine the relationship between regional trust and trade credit. The panel data includes observations for each industry-year pair spanning the period from 2011 to 2022. Column (1) and (2) use trade credit as the dependent variable, measured as the ratio of accounts payable to total assets. The dependent variable is regional trust. Column (1) adds only control variables, while Columns (2) incorporate year-specific and industry-specific fixed effects on top of the control variables. Variable definitions are detailed in Table 1. All continuous variables underwent trimmed treatment at the 1% and 99% percentiles. We denote statistical significance at the 1%, 5%, and 10% levels with ***, **, and *, respectively

assessing urban credit environments but also assists city administrators in understanding local credit-related economic issues and optimizing credit system development. The regression results are shown in Table 4.

As shown in the regression results of Table 4, when trade credit is measured using either the accounts payable to total liabilities ratio or the accounts payable to cost of goods sold ratio, the regression results for regional trust and trade credit are significantly positive. Furthermore, these results remain valid even after replacing the regional trust indicator. These findings indicate that the regression results are significant regardless of whether the independent or dependent variables are substituted, confirming the reliability of the baseline regression conclusions.

4.3.2 Adding control variables—default risk. Trade credit is inherently a credit-based transaction method, and its operation is heavily reliant on the creditworthiness and fulfillment capacity of both parties. When default risk rises, credit providers (such as suppliers or financial institutions) face increased exposure to the risk of failing to recover payments or funds on time. This risk prompts credit providers to exercise greater caution in decision-making, potentially

Downloaded from http://ftp.nowpublishers.com/cafr/article-pdf/doi/10.1108/CAFR-04-2025-0041/11584251/cafr-04-2025-0041en.pdf by guest on

Table 4. Regression results with alternative measures

Variables	TC2 (1)	TC3 (2)	AP (3)	TC1 (4)	TC1 (5)
Trust1	0.006*** (4.768)	2.163** (2.218)			
Trust1			0.022** (2.088)		
INV				0.002*** (6.883)	
ENV					0.041*** (4.089)
Constant	0.518*** (27.685)	−50.379*** (−3.350)	−5.148*** (−32.670)	−0.077*** (−7.338)	−0.229*** (−5.309)
Controls	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes
Industry FE	Yes	Yes	Yes	Yes	Yes
N	20,974	13,627	20,974	18,711	19,393
R^2	0.399	0.137	0.755	0.332	0.331

Note(s): Table 4 presents regression results using alternative core variable measurement approaches, covering the period from 2011 to 2022. Column (1) shows regression results using the ratio of accounts payable to total liabilities as a proxy for trade credit. Column (2) presents regression results using the ratio of accounts payable to cost of goods sold as a proxy for trade credit. Column (3) features the natural logarithm of accounts payable as the dependent variable. Columns (4) and (5) present regression results using actual foreign investment (INV) and the business credit environment index (ENV) as proxies for regional trust, respectively. Variable definitions are detailed in Table 1. All continuous variables underwent trimmed processing at the 1% and 99% percentiles. ***, **, and * represent significance at the 1%, 5%, and 10% levels, respectively

adopting measures like raising interest rates, shortening credit terms, or reducing credit limits to mitigate exposure. While these measures protect the interests of credit providers to some extent, they also increase financing costs for businesses and reduce the availability of trade credit, thereby negatively impacting trade activities. Furthermore, default risk can propagate upstream or downstream through supply chains, triggering chain reactions that undermine overall supply chain stability and efficiency. This risk transmission effect not only increases supply chain complexity and uncertainty but may also erode trust between businesses, further inhibiting trade credit development. Therefore, default risk is a critical factor influencing trade credit. Controlling default risk allows for more accurate estimation of regional trust's impact on trade credit, avoiding endogeneity issues arising from default risk fluctuations. Moreover, higher levels of regional trust typically correlate with lower default risk among businesses. Trust reduces monitoring and transaction costs while enhancing firms' credit awareness and fulfillment capabilities. Conversely, regions with lower trust levels may exhibit higher default risk, as businesses may be more inclined to default. Controlling for default risk thus facilitates separating the distinct impacts of trust and default risk on trade credit.

Following Bharath and Shumway (2008), the default risk is measured using the probability of default (PD), calculated as follows:

$$DD_{it} = \frac{\log\left(\frac{Equity_{it}+Debt_{it}}{Debt_{it}}\right) + \left(r_{it-1} - \frac{\sigma^2 V_{it}}{2}\right)T_{it}}{\sigma_{V_{it}}\sqrt{T_{it}}} \quad (2)$$

where, DD_{it} denotes the distance to default; $Equity_{it}$ represents the firm's total market capitalization, calculated as the product of total shares issued and year-end market price; $Debt_{it}$ is the face value of the firm's debt, summing half of its year-end short-term liabilities and half of its year-end long-term liabilities; r_{it-1} is the firm's annualized return one year lagged; In Model

Downloaded from http://ftp.nowpublishers.com/cafr/article-pdf/doi/10.1108/CAFR-04-2025-0041/11584251/cafr-04-2025-0041en.pdf by guest on

(2), T_{it} is set to one year; $\sigma_{V_{it}}$ is an estimate of the company's asset volatility, calculated using $\sigma_{E_{it}}$. $\sigma_{E_{it}}$ is the volatility of stock returns, obtained by taking the standard deviation of the company's monthly return data from the previous year. The model for calculating $\sigma_{V_{it}}$ is as follows:

$$\sigma_{V_{it}} = \frac{Equity_{it}}{Equity_{it} + Debt_{it}} \sigma_{E_{it}} + \frac{Debt_{it}}{Equity_{it} + Debt_{it}} (0.05 + 0.25\sigma_{E_{it}}) \quad (3)$$

Based on Model (2) and (3), the default risk distance DD_{it} can be calculated. Then, using the standard cumulative normal distribution function, the firm default probability EDF can be determined:

$$EDF_{it} = Normal(-DD_{it}) \quad (4)$$

The regression results after incorporating the probability of default into the model are shown in Table 5.

As shown in column (1) of Table 5, after controlling for default risk (EDF), the *t*-value of the regression result decreased to 4.637 compared to the baseline regression value, while the regression coefficient remained largely unchanged. This indicates that regional trust continues to play a significant role in trade credit even after controlling for default risk. This result also suggests that trusted regions benefit from trade credit beyond what their actual performance warrants, implying that a "trust bias" may exist.

4.3.3 Replacing sample periods. The COVID-19 pandemic has led to a contraction in global trade volumes and constrained credit supply, directly impacting the scale and structure of trade credit (Gopalakrishnan, Sampath, & Srivastava, 2024; Tarkom & Huang, 2023). Moreover, the pandemic not only disrupted economic activity but also altered the mindset of businesses and market participants. Such shifts in psychological factors can influence trade credit behavior. Therefore, excluding pandemic-related disturbances enhances model robustness, ensuring regression results remain unaffected by this exogenous shock. Specifically, this study removes the sample period from 2020 to 2022 to test the robustness of conclusions. The regression results are presented in Table 5.

As shown in the regression results in column (2) of Table 5, after excluding data from 2020 to 2022, the positive impact of regional trust on trade credit remains statistically significant at the 1% level, further validating the robustness of the benchmark regression findings.

Table 5. Other robustness test results

Variables	TC1 (1)	TC1 (2)
Trust1	0.003***	0.004***
	(4.637)	(4.923)
EDF	−0.005	
	(−0.335)	
Constant	−0.031***	−0.083***
	(−3.030)	(−7.544)
Controls	Yes	Yes
Year FE	Yes	Yes
Industry FE	Yes	Yes
N	18,311	15,315
R^2	0.338	0.312

Note(s): Table 5 Column (1) reports regression results for the control variable of increased default risk, covering the period from 2011 to 2022. Column (2) presents regression results excluding pandemic-period data, covering the time span from 2011 to 2019. The regression incorporates year-specific and industry-specific fixed effects. Numbers in parentheses denote *t*-statistics calculated based on robust standard errors. Variable definitions are detailed in Table 1. ***, **, and * represent significance at the 1%, 5%, and 10% levels, respectively

Downloaded from http://ftp.nowpublishers.com/cafr/article-pdf/doi/10.1108/CAFR-04-2025-0041/11584251/cafr-04-2025-0041en.pdf by guest on

4.4 Endogeneity test

The "National Civilized City" title is a comprehensive national honor established in China since 2003 (officially described as awarded every three years, though variations exist; six rounds had been conducted by 2022) [1]. It is regarded as the highest honor in urban governance and civilization development. Thus, this title meets exogenous criteria and can serve as a credible signal indicating simultaneous improvements in regional trust, business environment quality, and government credibility.

4.4.1 Staggered difference-in-differences model. We manually compiled a list of all National Civilized Cities awardees. Using a city's attainment of the "National Civilized City" title as an exogenous policy shock, we constructed the following staggered difference-in-difference model for causal identification.

$$TC_{it} = \alpha_0 + \alpha_1 DID + \beta Controls_{it} + YearFE + IndustryFE + \varepsilon_{it} \tag{5}$$

where, TC_{it} denotes trade credit, measuring firm access to trade credit; DID is a dummy variable, taking a value of 1 when the firm's region is awarded the title of National Civilized City in the given year, and 0 otherwise; $Controls_{it}$ is a set of control variables encompassing both firm-level and region-level factors; ε_{it} is the random disturbance term. Furthermore, to control for unobservable macroeconomic conditions and industry-specific differences, this study also incorporates year fixed effects and industry fixed effects.

According to the regression results in column (1) of Table 6, we find that when a city receives the title of "National Civilized City", the amount of trade credit obtained by local firms increases significantly, supporting the conclusions of the baseline model.

4.4.2 Dynamic effect test. The prerequisite for effective estimation using the difference-in-difference model is satisfying the parallel trend assumption. We set nine dummy variables representing the policy shock of "National Civilized City" designation: 4 years prior, 3 years prior, 2 years prior, 1 year prior, the current year, year 1, year 2, year 3, and year 4 (Before4, Before3, Before2, Before1, Current, After1, After2, After3, After4) to establish the following model for testing dynamic effects:

$$\begin{aligned} TC_{it} = {} & \alpha_0 + \alpha_1 Before4_{it} + \alpha_2 Before3_{it} + \alpha_3 Before4_{it} + \alpha_4 Before1_{it} \\ & + \alpha_5 Current_{it} + \alpha_6 After1_{it} + \alpha_7 After2_{it} + \alpha_8 After3_{it} + \alpha_9 After4_{it} \\ & + \alpha_{10} Controls_{it} + YearFE + IndustryFE + \varepsilon_{it} \end{aligned} \tag{6}$$

where, TC_{it} denotes trade credit, measuring firm access to trade credit; $Controls_{it}$ is a set of control variables encompassing both firm-level and region-level factors; ε_{it} is the random disturbance term. Furthermore, to control for unobservable macroeconomic conditions and industry-specific differences, this study also incorporates year fixed effects and industry fixed effects.

As shown in Table 6 column (2) and Figure 1, the coefficients for Before4, Before3, Before2, and Before1 are not statistically significant, indicating that the parallel trend test has been passed. Meanwhile, the coefficients for Current, After1, After2, After3, and After4 are significantly positive, suggesting that the increase in trade credit occurred only after receiving the ""National Civilized City" title. This supports the causal effect of this honor on trade credit.

4.4.3 Goodman-Bacon decomposition. Goodman-Bacon (2021) noted that when the average treatment effect varies over time, the two-way fixed effects (TWFE) double difference (DID) method may be misleading. To address concerns that our results might be driven by misleading crossover DID estimates, we conducted a Goodman-Bacon decomposition, breaking down the sample estimates into all 2×2 DID estimates and their weights. This examined whether a "bad control group" (where earlier-treated samples served as controls for later-treated samples) significantly distorted the estimates.

Table 6 column (3) and Figure 2 present the results of the Goodman-Bacon decomposition. The findings indicate that after accounting for decomposition effects, our core variable reform

Downloaded from http://ftp.nowpublishers.com/cafr/article-pdf/doi/10.1108/CAFR-04-2025-0041/11584251/cafr-04-2025-0041en.pdf by guest on

Table 6. Regression results of National Civilized City title

Variables	DID model TC1 (1)	Dynamic effect test TC1 (2)	Goodman-Bacon decomposition TC1 (3)
DID	0.003***		
	(3.178)		
Before4		0.002	
		(0.596)	
Before3		−0.000	
		(−0.117)	
Before2		0.000	
		(0.011)	
Before1		0.001	
		(0.278)	
Current		0.005***	
		(3.291)	
After1		0.006***	
		(3.477)	
After2		0.006***	
		(3.141)	
After3		0.004**	
		(2.136)	
After4		0.005**	
		(2.169)	
Earlier T vs. Later C			0.003
			weight = 0.029
Later T vs. Earlier C			−0.002
			weight = 0.021
T vs. Never treated			0.001
			weight = 0.459
T vs. Already treated			0.003
			weight = 0.491
Constant	−0.054***	−0.062***	
	(−5.679)	(−5.815)	
Controls	Yes	Yes	
Year FE	Yes	Yes	
Industry FE	Yes	Yes	
N	20,974	16,552	
R^2	0.323	0.312	

Note(s): Column (1) of Table 6 presents the results of the dynamic effect test, column (2) shows the regression results of the Difference-in-Differences, and column (3) displays the Goodman-Bacon decomposition results. Numbers in parentheses denote t-statistics calculated using robust standard errors. Variable definitions are detailed in Table 1. All continuous variables underwent trimmed quantiles at the 1% and 99% percentiles. ***, **, and * represent significance at the 1%, 5%, and 10% levels, respectively

remains positive and significant at the 1% level. The contamination group weight (Later, T vs. Earlier C) is only 0.021. This confirms the robustness of our benchmark findings.

4.5 Heterogeneity analysis

4.5.1 Information transparency. Firm information transparency reflects a firm's financial risk management capabilities and sustainable development capacity. It also influences trade credit by enhancing trust, cooperation, and market competitiveness. Two approaches were used to measure firm information transparency: First, the transparency ratings disclosed by the Shenzhen and Shanghai Stock Exchanges were applied, assigning values to four grades

Downloaded from http://ftp.nowpublishers.com/cafr/article-pdf/doi/10.1108/CAFR-04-2025-0041/11584251/cafr-04-2025-0041en.pdf by guest on

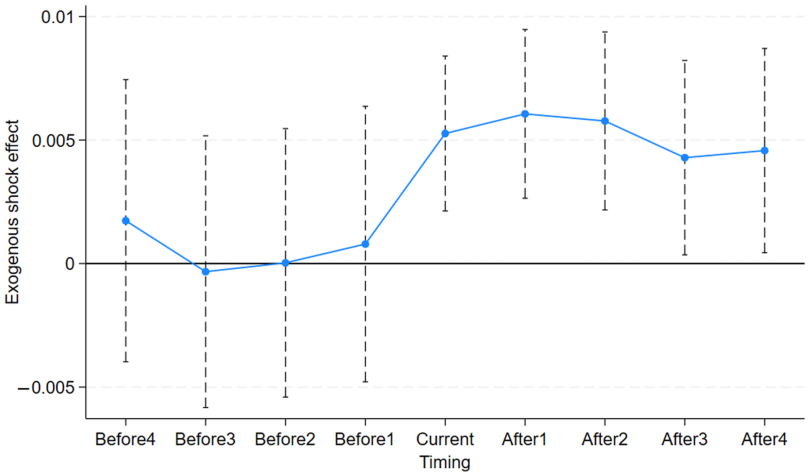

Figure 1. Dynamic analysis

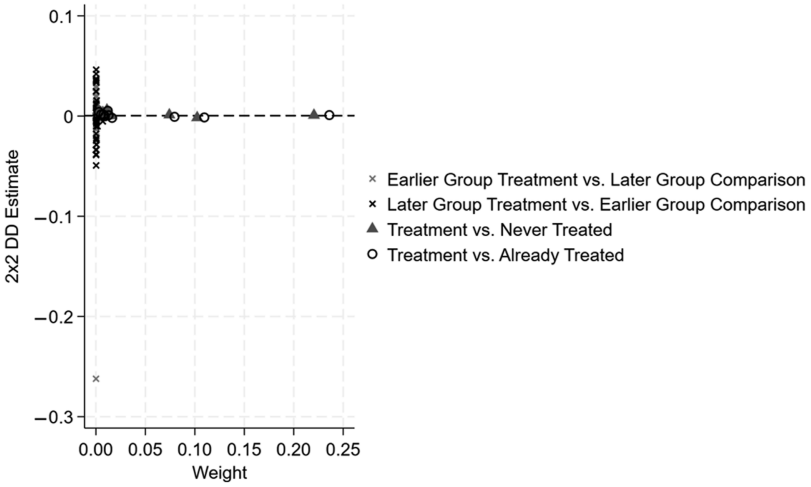

Figure 2. Goodman-Bacon decomposition

(A = Excellent, B = Good, C=Passing, D = Failing). Grade A is assigned a value of 4, Grade B a value of 3, and so on, yielding the firm information transparency data (Rating). Higher values indicate greater transparency (Yang & Zhao, 2025). The second method involves constructing an information disclosure quality (KV) index to measure transparency. The KV Index was first proposed by Kim and Verrecchia (2001) to measure disclosure quality primarily through the sensitivity of stock returns to trading volume. A higher index indicates greater investor reliance on volume information, indirectly suggesting lower firm disclosure quality. This metric is a widely used indicator for assessing firm disclosure quality and is employed in numerous finance and accounting studies (Ascioglu *et al*., 2005, 2008; Chen, Jiang, Liu, Liu, & Wu, 2025). The KV Index is calculated as follows:

Downloaded from http://ftp.nowpublishers.com/cafr/article-pdf/doi/10.1108/CAFR-04-2025-0041/11584251/cafr-04-2025-0041en.pdf by guest on

$$\ln\left|\frac{P_t - P_{t-1}}{P_{t-1}}\right| = \alpha + \beta\left(\frac{V_{olt}}{V_{ol0}} - 1\right) + \varepsilon_{it} \quad (7)$$

$$KV_{it} = \beta \times 10^6 \quad (8)$$

where, P_t denotes the closing price of the firm's stock on day t; V_{olt} denotes the trading volume of the firm's stock on day t; V_{ol0} denotes the average daily trading volume across all trading days during the study period.

To examine the moderating role of firm information transparency in the relationship between regional trust and trade credit, we incorporated the interaction term between firm information transparency and regional trust into Model (1) and conducted a regression analysis on trade credit. The regression results are presented in Table 7.

As shown in column (1) of Table 7, the interaction term Trust1*Rating exhibits a negative regression coefficient of −0.001 for trade credit. Column (2) shows that the interaction term Trust1*KV exhibits a positive coefficient of 0.003 in the trade credit regression results. This indicates that the positive impact of regional trust on trade credit weakens when information transparency is high, while it strengthens when information disclosure quality is low. This suggests that regional trust mitigates the negative impact of information asymmetry on trade credit, thereby validating H2.

4.5.2 Economic policy uncertainty. Economic policy uncertainty (EPU) increases market risk and uncertainty, which may lead to a reduction in firm trade credit, higher borrowing costs, and tighter credit conditions. There are currently two mainstream methods for measuring the Economic Policy Uncertainty Index: one is based on the monthly China Policy Uncertainty Index compiled by the *South China Morning Post*, and the other is based on the monthly China Policy Uncertainty Index compiled by the *People's Daily* and *Guangming Daily*. The annual data for China's economic policy uncertainty indexes EPU1 and EPU2, are obtained by taking the arithmetic mean of the monthly indices for each year, dividing by 100, and standardizing the results.

The *South China Morning Post*, founded in 1903, is one of the oldest and most influential English-language newspapers in Hong Kong. It is renowned for its comprehensive domestic and international news coverage, as well as its authoritative business and financial analysis. The *People's Daily* is the official newspaper of the Central Committee of the Communist Party of China. It has advanced the integration of media development and the construction of international communication capabilities, evolving into a modern mainstream media platform with over 10 types of media carriers, including print, digital, mobile applications, social media, and more. The *Guangming Daily* is a major national newspaper sponsored by the Central Committee of the Communist Party of China, primarily targeting intellectuals. It has developed into a modern media group with a comprehensive media presence, including print, digital, and multimedia platforms. The authority of these newspapers ensures the reliability of the data used in this study. To analyze how regional trust moderates the impact of economic policy uncertainty on trade credit, we incorporate the interaction term between economic policy uncertainty and regional trust into the model and conduct a regression analysis on trade credit. The regression results are presented in Table 7. As shown in columns (3) and (4) of Table 7, the interaction terms Trust1*EPU1 and Trust1*EPU2 are both significantly positive in their regression results with TC1. This indicates that regional trust mitigates the negative impact of economic policy uncertainty on trade credit, confirming the positive moderating effect of regional trust. This may stem from trust's ability to effectively alleviate risks arising from uncertainty. When regional trust levels are high, firms located in that region possess greater reputational and credit value. This alleviates suppliers' concerns about the liquidity risk of client firms and corrects their overestimation of the default risk of client firms, thereby weakening the negative impact of economic policy uncertainty on trade credit. This validates H3.

Downloaded from http://ftp.nowpublishers.com/cafr/article-pdf/doi/10.1108/CAFR-04-2025-0041/11584251/cafr-04-2025-0041en.pdf by guest on

Table 7. Heterogeneity analysis results

Variables	Information transparency TC1 (1)	TC1 (2)	EPU TC1 (3)	TC1 (4)	Ownership Nature TC1 (5)
Trust7	0.007***	0.002**	0.003***	0.003***	0.003***
	(3.060)	(2.058)	(4.575)	(4.576)	(4.484)
Trust7*Rating	−0.001*				
	(−1.695)				
Trust7*KV		0.003*			
		(1.863)			
Trust7*EPU1			0.002***		
			(3.001)		
Trust7*EPU2				0.003***	
				(2.813)	
Trust7*SOE					−0.000
					(−0.235)
Constant	−0.053***	−0.051***	−0.059***	−0.059***	−0.059***
	(−3.496)	(−5.010)	(−6.167)	(−6.171)	(−5.937)
Controls	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes
Industry FE	Yes	Yes	Yes	Yes	Yes
N	16004	19681	20974	20974	20974
R^2	0.317	0.327	0.324	0.324	0.324

Note(s): Table 7 reports the regression results of the heterogeneity analysis. Column (1) and Column (2) present the regression results for the interaction term between information transparency and regional trust. Column (3) and Column (4) present the regression results for the interaction term between economic policy uncertainty and regional trust. Column (5) presents the regression results for the interaction term between ownership nature and regional trust. All regressions include year and industry fixed effects. Numbers in parentheses denote t-statistics calculated based on robust standard errors. Variable definitions are detailed in Table 1. All continuous variables underwent trimmed quantiles at the 1% and 99% percentiles. ***, **, and * represent significance at the 1%, 5%, and 10% levels, respectively

4.5.3 Nature of ownership. To test H4, we conducted regression analysis by creating an interaction term between the variable SOE and the independent variable. As shown in Table 7, the regression coefficient for the interaction term Trust1*SOE is negative but not statistically significant. This does not indicate that regional trust exerts a stronger positive effect on trade credit for non-state-owned enterprises (SOEs) compared with SOEs. H4 is not supported.

On one hand, state-owned enterprises typically possess stronger overall capabilities and financing conditions, along with greater resilience against external risks. This may reduce their reliance on regional trust when accessing trade credit. On the other hand, while non-state-owned enterprises may depend more on regional trust for trade credit, their operational risks, profitability, and cash reserves are influenced by multiple factors. Consequently, the positive impact of regional trust may be offset by other negative factors. Furthermore, the impact of regional trust on trade credit may be moderated by other factors such as monetary policy and market conditions. These factors can vary across regions and firm types, meaning that simply being a state-owned enterprise does not inherently increase or decrease the positive effect of regional trust on trade credit.

5. Further analysis

5.1 Short-term and long-term trade credit

By categorizing trade credit into long-term and short-term components and examining the differential impact of regional trust on each, this study helps clarify the boundary conditions of

Downloaded from http://ftp.nowpublishers.com/cafr/article-pdf/doi/10.1108/CAFR-04-2025-0041/11584251/cafr-04-2025-0041en.pdf by guest on

its effects and the underlying mechanisms. Following Kong *et al.* (2020) and Ge and Qiu (2007), we decompose accounts payable into amounts due within one year and amounts due beyond one year. Dividing each component by total assets yields short-term trade credit (STC) and long-term trade credit (LTC), respectively. We then examine how regional trust influences STC and LTC. The regression results are presented in Table 8.

As shown in columns (1) and (2) of Table 8, regional trust exhibits a significant positive correlation with short-term trade credit, while its effect on long-term trade credit is positive but not statistically significant. This indicates that regional trust primarily influences trade credit by increasing short-term trade credit. Specifically, long-term trade credit involves extended durations and higher risks, leading suppliers to adopt a more cautious approach. Regional trust is insufficient to fully offset the risk exposure arising from information asymmetry. Furthermore, because long-term financing relies more heavily on substantive risk control measures such as collateral, regional trust has relatively limited scope to exert influence. Consequently, its impact is primarily evident in short-term trade credit.

5.2 How does the provision of trade credit change?

Trade credit is essentially a bilateral financial contract between upstream and downstream firms in a supply chain. Firm's accounts payable correspond to its upstream suppliers' accounts receivable. Studying accounts payable (the demand side) alone reveals only how trust benefits firms as buyers; it fails to address whether and how trust influences firms' decisions to extend credit as suppliers. The provision of trade credit by firms is essentially a risk-taking behavior. By examining the impact of regional trust on firms' trade credit supply behavior, this paper seeks to reveal the complete mechanisms of trust in supply chain finance and to expand the research boundaries regarding the influence of informal institutions on firm decision-making. Specifically, firms are not entirely rational, and their decisions are also subject to the affective influence of informal institutions such as trust. This not only facilitates a comprehensive assessment, from a bilateral perspective, of the practical efficacy of informal institutions in alleviating firms' financing constraints and optimizing the allocation of funds within supply chains, but also deepens our understanding of how regional trust is embedded in commercial relationships and influences firms' financial decisions.

This section further analyzes the relationship between regional trust levels (Trust2) and trade credit provision. The calculation method follows Zhu and Wang (2024) using data from

Table 8. Regression results of decomposed trade credit

Variables	STC (1)	LTC (2)
Trust1	0.003***	0.000
	(4.752)	(1.143)
Constant	−0.067***	0.007***
	(−7.262)	(3.681)
Controls	Yes	Yes
Year FE	Yes	Yes
Industry FE	Yes	Yes
N	20,953	20,954
R^2	0.307	0.125

Note(s): Table 8 presents regression results for regional trust and short-term/long-term trade credit. Column (1) uses short-term trade credit as the dependent variable, while column (2) uses long-term trade credit. Both regressions incorporate year and industry fixed effects. Numbers in parentheses denote *t*-statistics calculated using robust standard errors. Variable definitions are detailed in Table 1. All continuous variables underwent trimmed quantiles at the 1% and 99% percentiles. ***, **, and * represent significance at the 1%, 5%, and 10% levels, respectively

Downloaded from http://ftp.nowpublishers.com/cafr/article-pdf/doi/10.1108/CAFR-04-2025-0041/11584251/cafr-04-2025-0041en.pdf by guest on

the China General Social Survey (CGSS). The trust-related survey question asks: "In general, do you agree that most people in this society can be trusted?" The Trust2 value represents the proportion of respondents who selected "strongly agree" or "somewhat agree" relative to the total number of respondents in each province. A higher Trust2 value indicates greater trust among residents in that region. The raw data spans 2011 to 2013, 2015, 2017, 2018 and 2021. Missing years are imputed using the preceding year's data: 2014 data are replaced by 2013, 2016 data are replaced by 2015, and so on. Trade credit provision (TCP) is measured as in Miao *et al*. (2024), by the ratio of accounts receivable to total assets. Regression results are presented in Table 9.

As shown in columns (1) and (2) of Table 9, the regression results for Trust2 and TCP are significantly positive, indicating that enterprises in regions with higher levels of interpersonal trust extend greater amounts of trade credit. This may stem from the fact that in regions characterized by higher trust levels, businesses generally anticipate that customers will fulfill their payment obligations more reliably, thereby prompting them to increase the trade credit provision.

5.3 Does the role of regional trust weaken over time?

Trust itself is dynamic and fragile, susceptible to disruption by external factors such as market volatility and policy changes. Over time, the increasing ambiguity of firm characteristics and regional boundaries further undermines the stability and continuity of trust. In long-term collaborations, information asymmetry intensifies, leading credit providers to question borrowers' long-term repayment capacities. Furthermore, intensified market competition, increased conflicts of interest, and shifts in the institutional environment over time may all impact regional trust's role in facilitating trade credit. Therefore, this study further examines whether the influence of regional trust on trade credit diminishes over time.

The construction of year dummies follows standard practices in panel data econometrics. For example, yeardummy1 takes the value of 1 if the year is 2011 and 0 otherwise; yeardummy2 takes the value of 1 if the year is 2012 and 0 otherwise, and so forth. The following Gibbons, Heblich, and Timmins (2021), we employ interaction terms between regional trust and the year dummies to identify dynamic effects over time. The regression results are presented in Table 10.

Table 9. Regression results of trade credit provision

Variables	TCP (1)	TCP (2)
Trust2	0.035***	0.018**
	(4.249)	(2.208)
Constant	0.430***	0.386***
	(31.209)	(27.109)
Controls	Yes	Yes
Year FE	No	Yes
Industry FE	No	Yes
N	20,975	20,974
R^2	0.159	0.356

Note(s): Table 9 presents the regression results for the degree of trust in others and the provision of trade credit. Column (1) includes only control variables. Column (2) adds year and industry fixed effects to the control variables. Numbers in parentheses denote *t*-statistics calculated using robust standard errors. Variable definitions are detailed in Table 1. All continuous variables underwent trimmed standardization at the 1% and 99% percentiles. ***, **, and * represent significance at the 1%, 5%, and 10% levels, respectively

Downloaded from http://ftp.nowpublishers.com/cafr/article-pdf/doi/10.1108/CAFR-04-2025-0041/11584251/cafr-04-2025-0041en.pdf by guest on

Table 10. Regression results over time

Variables	TC1 (1)	STC (2)
Trust1*year_dummy1	0.003***	0.002***
	(3.118)	(2.797)
Trust1*year_dummy2	0.002***	0.002**
	(2.641)	(2.084)
Trust1*year_dummy3	0.003***	0.002***
	(3.399)	(2.651)
Trust1*year_dummy4	0.003***	0.003***
	(3.677)	(3.289)
Trust1*year_dummy5	0.002**	0.001*
	(2.173)	(1.776)
Trust1*year_dummy6	0.002**	0.001**
	(2.320)	(1.964)
Trust1*year_dummy7	0.002***	0.002***
	(3.021)	(2.810)
Trust1*year_dummy8	0.003***	0.003***
	(3.729)	(3.816)
Trust1*year_dummy9	0.004***	0.004***
	(4.631)	(4.810)
Trust1*year_dummy10	0.004***	0.004***
	(5.694)	(6.136)
Trust1*year_dummy11	0.004***	0.004***
	(5.663)	(6.201)
Trust1*year_dummy12	0.004***	0.005***
	(6.256)	(6.913)
Constant	−0.095***	−0.101***
	(−10.125)	(−11.191)
Controls	Yes	Yes
Industry FE	Yes	Yes
N	20,975	20,954
R^2	0.324	0.308

Note(s): Table 10 presents regression results showing the temporal evolution of regional trust's impact on trade credit. Column (1) uses trade credit as the dependent variable, while column (2) employs short-term trade credit. All regressions incorporate year and industry fixed effects. Numbers in parentheses denote *t*-statistics. Variable definitions are detailed in Table 1. All continuous variables underwent trimmed quantiles at the 1% and 99% percentiles. ***, **, and * represent significance at the 1%, 5%, and 10% levels, respectively

The regression results in columns (1) and (2) of Table 10 indicate that regional trust exerts a persistent influence on trade credit and short-term trade credit, which does not diminish over time.

6. Conclusions and implications

This study examines the impact of regional trust on trade credit from an informal institutions perspective. Findings reveal that regional trust exerts a significant positive influence on firm trade credit, particularly in environments characterized by low firm information transparency and high economic policy uncertainty. Furthermore, when a region receives the "National Civilized City" designation, the trade credit obtained by firms within that region increases significantly, further validating the crucial role of trust in economic activities. Further analysis reveals that short-term trade credit constitutes a substantial portion of the total trade credit obtained by firms, likely due to its flexibility and ability to meet immediate funding needs. Crucially, the positive effect of regional trust on trade credit does not diminish over time. Finally, firms provide more trade credit when the level of trust in others within their region is higher.

Downloaded from http://ftp.nowpublishers.com/cafr/article-pdf/doi/10.1108/CAFR-04-2025-0041/11584251/cafr-04-2025-0041en.pdf by guest on

Our research findings offer significant managerial implications. First, regional trust exerts a substantial positive influence on firm trade credit, particularly in environments characterized by low firm information transparency and high economic policy uncertainty. This demonstrates that trust functions as an informal institution within economic activities and effectively reduces transaction costs and risks while promoting trade credit. Firms should prioritize trust-building in their operational strategies by reducing transaction costs and enhancing market competitiveness by strengthening trust relationships with customers and suppliers. Furthermore, when establishing and maintaining trust relationships, businesses should not be swayed by stereotypes but must closely align trust with actual behavior. This means companies need to demonstrate their credibility through consistent, ongoing actions rather than relying solely on prevailing regional or industry-wide trust levels. Moreover, the positive impact of regional trust on trade credit does not diminish over time, indicating the long-term stability of trust's beneficial effects. Regional governments and relevant authorities should commit to improving the credit environment by implementing policy guidance and developing credit systems to enhance regional economic vitality and sustainable development capabilities.

Acknowledgments

The authors are supported by the Anhui Social Science Innovation Development Research Project (Grant No. 2023CX035) and the National Natural Science Foundation of China (Grant Nos. 72201001 and 72501129).

Note

1. For the full list of National Civilized Cities, please visit the website: http://www.wenming.cn/wmsjk/cjdx_53740/qgwmcsmd/

References

Abdulla, Y., Dang, V. A., & Khurshed, A. (2017). Stock market listing and the use of trade credit: Evidence from public and private firms. *Journal of Corporate Finance*, *46*, 391–410. doi: 10.1016/j.jcorpfin.2017.08.004.

Abdulla, Y., Dang, V. A., & Khurshed, A. (2020). Suppliers' listing status and trade credit provision. *Journal of Corporate Finance*, *60*, 101535. doi: 10.1016/j.jcorpfin.2019.101535.

Aghion, P., Askenazy, P., Berman, N., Cette, G., & Eymard, L. (2012). Credit constraints and the cyclicality of R&D investment: Evidence from France. *Journal of the European Economic Association*, *10*(5), 1001–1024.

Allen, F., Qian, J., & Qian, M. (2005). Law, finance, and economic growth in China. *Journal of Financial Economics*, *77*(1), 57–116. doi: 10.1016/j.jfineco.2004.06.010.

Ascioglu, A., Hegde, S. P., & McDermott, J. B. (2005). Auditor compensation, disclosure quality, and market liquidity: Evidence from the stock market. *Journal of Accounting and Public Policy*, *24*(4), 325–354. doi: 10.1016/j.jaccpubpol.2005.05.002.

Ascioglu, A., Hegde, S. P., & McDermott, J. B. (2008). Information asymmetry and investment–cash flow sensitivity. *Journal of Banking & Finance*, *32*(6), 1036–1048. doi: 10.1016/j.jbankfin.2007.09.018.

Bastos, R., & Pindado, J. (2013). Trade credit during a financial crisis: A panel data analysis. *Journal of Business Research*, *66*(5), 614–620. doi: 10.1016/j.jbusres.2012.03.015.

Bharath, S. T., & Shumway, T. (2008). Forecasting default with the merton distance to default model. *Review of Financial Studies*, *21*(3), 1339–1369. doi: 10.1093/rfs/hhn044.

Bischoff, T. S., Hipp, A., & Runst, P. (2023). Firm innovation and generalized trust as a regional resource. *Research Policy*, *52*(8), 104813. doi: 10.1016/j.respol.2023.104813.

Downloaded from http://ftp.nowpublishers.com/cafr/article-pdf/doi/10.1108/CAFR-04-2025-0041/11584251/cafr-04-2025-0041en.pdf by guest on

Bischoff, T. S., Runst, P., & Bizer, K. (2024). Spatial heterogeneity in the effect of regional trust on innovation. *Economic Geography*, *100*(1), 80–101. doi: 10.1080/00130095.2023.2252552.

Cao, Z., Chen, S. X., & Lee, E. (2022). Does business strategy influence interfirm financing? Evidence from trade credit. *Journal of Business Research*, *141*, 495–511. doi: 10.1016/j.jbusres.2021.11.050.

Cao, X., Gong, X., Gu, R., Li, Y., & Liu, X. (2024). Do regional trusts alleviate bond market risks? Evidence from the Chinese municipal corporate bond pricing. *International Review of Financial Analysis*, *96*, 103710. doi: 10.1016/j.irfa.2024.103710.

Chen, Y., & Liu, T. (2024). Bankruptcy judicial reform and corporate trade credit financing. *China Economic Review*, *85*, 102176. doi: 10.1016/j.chieco.2024.102176.

Chen, X., & Wu, C. (2023). Subnational social trust and the internationalization of emerging market firms. *Journal of Business Research*, *158*, 113661. doi: 10.1016/j.jbusres.2023.113661.

Chen, L., & Zeng, H. (2024). Can social trust promote the professional division of labor in firms? Evidence from China. *International Review of Economics & Finance*, *89*, 363–377. doi: 10.1016/j.iref.2023.10.027.

Chen, X., Arnoldi, J., & Chen, X. (2020). Chinese culture, materialism and corporate supply of trade credit. *China Finance Review International*, *10*(2), 197–212. doi: 10.1108/cfri-11-2018-0147.

Chen, S., Chen, Y., & Jebran, K. (2021). Trust and corporate social responsibility: From expected utility and social normative perspective. *Journal of Business Research*, *134*, 518–530. doi: 10.1016/j.jbusres.2021.05.045.

Chen, Y., Jiang, J., Liu, J., Liu, X., & Wu, W. (2025). Registration system reform, information environment, and market manipulation. *Journal of Corporate Finance*, *93*, 102797. doi: 10.1016/j.jcorpfin.2025.102797.

Cheng, B., & Lu, S. (2023). Judicial system reform and trade credit financing: Evidence from a quasi-natural experiment. *Managerial and Decision Economics*, *44*(6), 3422–3436. doi: 10.1002/mde.3888.

Cheng, B., Ioannou, I., & Serafeim, G. (2014). Corporate social responsibility and access to finance. *Strategic Management Journal*, *35*(1), 1–23. doi: 10.1002/smj.2131.

Coleman, J. S. (1988). Social capital in the creation of human capital. *American Journal of Sociology*, *94*, S95–S120. doi: 10.1086/228943.

Costa, M. D., & Habib, A. (2021). Trade credit and cost stickiness. *Accounting and Finance*, *61*(1), 1139–1179. doi: 10.1111/acfi.12606.

D'Mello, R., & Toscano, F. (2020). Economic policy uncertainty and short-term financing: The case of trade credit. *Journal of Corporate Finance*, *64*, 101686. doi: 10.1016/j.jcorpfin.2020.101686.

Ding, C., & Ma, Q. (2024). Does social trust promote the size of enterprises? Evidence from China. *Journal of Asian Economics*, *91*, 101705. doi: 10.1016/j.asieco.2023.101705.

Ding, F., Liu, Q., Shi, H., Wang, W., & Wu, S. (2023). Firms' access to informal financing: The role of shared managers in trade credit access. *Journal of Corporate Finance*, *79*, 102388. doi: 10.1016/j.jcorpfin.2023.102388.

Ehigiamusoe, K. U., Chen, D., Dogan, E., & Binsaeed, R. H. (2025). Unravelling the moderating roles of environmental regulations on the impact of foreign direct investment on environmental sustainability. *Journal of Environmental Management*, *375*, 124175. doi: 10.1016/j.jenvman.2025.124175.

Fernandez, V. (2021). The role of trust and social commitment in start-up financing. *International Review of Financial Analysis*, *75*, 101722. doi: 10.1016/j.irfa.2021.101722.

Fisman, R., & Love, I. (2003). Trade credit, financial intermediary development, and industry growth. *The Journal of Finance*, *58*(1), 353–374. doi: 10.1111/1540-6261.00527.

Gao, Y., & Gao, J. (2023). Employee protection and trade credit: Learning from China's social insurance law. *Economic Modelling*, *127*, 106486. doi: 10.1016/j.econmod.2023.106486.

Downloaded from http://ftp.nowpublishers.com/cafr/article-pdf/doi/10.1108/CAFR-04-2025-0041/11584251/cafr-04-2025-0041en.pdf by guest on

Garcia-Appendini, E., & Montoriol-Garriga, J. (2013). Firms as liquidity providers: Evidence from the 2007–2008 financial crisis. *Journal of financial economics*, *109*(1), 272–291. doi:10.1016/j.jfineco.2013.02.010.

Garcıa-Teruel, P. J., & Martínez-Solano, P. (2010). Determinants of trade credit: A comparative study of European SMEs. *International Small Business Journal*, *28*(3), 215–233.

Ge, Y., & Qiu, J. (2007). Financial development, bank discrimination and trade credit. *Journal of Banking & Finance*, *31*(2), 513–530. doi: 10.1016/j.jbankfin.2006.07.009.

Giannetti, M., Burkart, M., & Ellingsen, T. (2011). What you sell is what you lend? Explaining trade credit contracts. *Review of Financial Studies*, *24*(4), 1261–1298. doi: 10.1093/rfs/hhn096.

Gibbons, S., Heblich, S., & Timmins, C. (2021). Market tremors: Shale gas exploration, earthquakes, and their impact on house prices. *Journal of Urban Economics*, *122*, 103313. doi: 10.1016/j.jue.2020.103313.

Gong, G., & Yang, N. (2025). Do corporate environmental violations affect trade credit? Evidence from China. *Emerging Markets Review*, *64*, 101236. doi: 10.1016/j.ememar.2024.101236.

Goodman-Bacon, A. (2021). Difference-in-differences with variation in treatment timing. *Journal of Econometrics*, *225*(2), 254–277. doi: 10.1016/j.jeconom.2021.03.014.

Gopalakrishnan, B., Sampath, A., & Srivastava, J. (2024). Did work from home 'really' work during COVID-19?. *China Accounting and Finance Review*, *26*(2), 229–252. doi: 10.1108/cafr-09-2023-0118.

Guo, J., Ng, J., Yeung, A. C., & Zhang, J. J. (2025). How does mandated sustainability disclosure about conflict minerals affect supply chain finance?. *Journal of Accounting and Public Policy*, *49*, 107275. doi: 10.1016/j.jaccpubpol.2024.107275.

Hu, M., Yang, X., Zhu, Y., & Uddin, G. S. (2024). Spillover effect of corporate digitalization in the supply chain: Perspective of trade credit financing. *Global Finance Journal*, *62*, 101009. doi: 10.1016/j.gfj.2024.101009.

Hussain, S., Ali, R., Emam, W., Tashkandy, Y., Mishra, P., Fahlevi, M., & Matuka, A. (2023). Economic policy uncertainty and firm value: Impact of investment sentiments in energy and petroleum. *Sustainability*, *15*(12), 9656. doi: 10.3390/su15129656.

James, H. L., Ngo, T., & Wang, H. (2023). The impact of more able managers on corporate trade credit. *Journal of Behavioral and Experimental Finance*, *40*, 100857. doi: 10.1016/j.jbef.2023.100857.

Jing, S., Hu, C., Zhou, Z., Guo, H., & Li, L. (2025). Have female executives made a difference?—the impact of female executives on cross-border mergers and acquisitions in listed companies. *International Review of Economics & Finance*, *98*, 103881. doi: 10.1016/j.iref.2025.103881.

Jory, S. R., Khieu, H. D., Ngo, T. N., & Phan, H. V. (2020). The influence of economic policy uncertainty on corporate trade credit and firm value. *Journal of Corporate Finance*, *64*, 101671. doi: 10.1016/j.jcorpfin.2020.101671.

Kallberg, J. G., & Udell, G. F. (2003). The value of private sector business credit information sharing: The US case. *Journal of Banking & Finance*, *27*(3), 449–469. doi: 10.1016/s0378-4266(02)00387-4.

Kim, O., & Verrecchia, R. E. (2001). The relation among disclosure, returns, and trading volume information. *The Accounting Review*, *76*(4), 633–654. doi: 10.2308/accr.2001.76.4.633.

Kong, D., Pan, Y., Tian, G. G., & Zhang, P. (2020). CEOs' hometown connections and access to trade credit: Evidence from China. *Journal of Corporate Finance*, *62*, 101574. doi: 10.1016/j.jcorpfin.2020.101574.

Li, X., Wang, S. S., & Wang, X. (2017). Trust and stock price crash risk: Evidence from China. *Journal of Banking & Finance*, *76*, 74–91. doi: 10.1016/j.jbankfin.2016.12.003.

Li, X., Ng, J., & Saffar, W. (2021). Financial reporting and trade credit: Evidence from mandatory IFRS adoption. *Contemporary Accounting Research*, *38*(1), 96–128. doi: 10.1111/1911-3846.12611.

Li, C., Sensoy, A., Song, C., & Zhang, M. (2023a). Does corporate green innovation behaviour impact trade credit? Evidence from China. *Research in International Business and Finance*, *66*, 102056. doi: 10.1016/j.ribaf.2023.102056.

Downloaded from http://ftp.nowpublishers.com/cafr/article-pdf/doi/10.1108/CAFR-04-2025-0041/11584251/cafr-04-2025-0041en.pdf by guest on

Li, T., Ang, T. C., Chewie, & Lu, C. (2023b). Employment protection and the provision of trade credit. *Journal of Banking & Finance*, *155*, 106991. doi: 10.1016/j.jbankfin.2023.106991.

Li, H., Wang, X., Liu, C., & Han, L. (2024). Do technology export regulations impact corporate trade credit financing? Evidence from China. *International Review of Financial Analysis*, *96*, 103597. doi: 10.1016/j.irfa.2024.103597.

Li, S., Zhu, Y., & Xu, N. (2025a). Computing resources and trade credit financing: Evidence from China. *International Review of Economics & Finance*, *97*, 103780. doi: 10.1016/j.iref.2024.103780.

Li, X., Ng, J., & Saffar, W. (2025b). Movable assets as collateral in debt financing and effects on trade credit: Evidence from collateral law reforms. *Journal of Financial Stability*, *78*, 101406. doi: 10.1016/j.jfs.2025.101406.

Liu, G., & Wang, S. (2023). Digital transformation and trade credit provision: Evidence from China. *Research in International Business and Finance*, *64*, 101805. doi: 10.1016/j.ribaf.2022.101805.

Liu, Y., Tang, T., Li, H., & Luo, L. (2024). How do government subsidies affect OFDI of private enterprises? Evidence from China. *International Review of Economics & Finance*, *90*, 241–251. doi: 10.1016/j.iref.2023.12.005.

Ma, L., Wang, Y., & Yuan, Y. (2025). Does cultural diversity affect trade credit provision?. *Pacific-Basin Finance Journal*, *94*, 102952. doi: 10.1016/j.pacfin.2025.102952.

McGuinness, G., & Hogan, T. (2016). Bank credit and trade credit: Evidence from SMEs over the financial crisis. *International Small Business Journal: Researching Entrepreneurship*, *34*(4), 412–445. doi: 10.1177/0266242614558314.

Miao, S., Zhu, Z., Deng, W., Xiaohu, & Wen, F. (2024). Law, politics, and trade credit in China. *Journal of Corporate Finance*, *88*, 102643. doi: 10.1016/j.jcorpfin.2024.102643.

Ouyang, C., Xiong, J., Liu, L., & Yao, J. (2024). Geographic proximity and trade credit: Evidence from a quasi-natural experiment. *Journal of Corporate Finance*, *84*, 102535. doi: 10.1016/j.jcorpfin.2023.102535.

Pástor, Ľ., & Veronesi, P. (2013). Political uncertainty and risk premia. *Journal of Financial Economics*, *110*(3), 520–545. doi: 10.1016/j.jfineco.2013.08.007.

Petersen, M. A., & Rajan, R. G. (1997). Trade credit: Theories and evidence. *Review of Financial Studies*, *10*(3), 661–691. doi: 10.1093/rfs/10.3.661.

Phan, D. H. B., Sharma, S. S., & Tran, V. T. (2018). Can economic policy uncertainty predict stock returns? Global evidence. *Journal of International Financial Markets, Institutions and Money*, *55*, 134–150. doi: 10.1016/j.intfin.2018.04.004.

Saeed, A., & Riaz, H. (2021). Navigating through firm–environmental groups' relationships: The impact of societal trust on corporate environmental strategy. *Business Strategy and the Environment*, *30*(8), 3552–3568. doi:10.1002/bse.2819.

Shi, L., Ho, K. C., & Liu, M. Y. (2023). Does societal trust make managers more trustworthy?. *International Review of Financial Analysis*, *86*, 102537. doi: 10.1016/j.irfa.2023.102537.

Song, G., & Li, Q. (2024). Mixed ownership reform and trade credit: Evidence from China. *International Review of Financial Analysis*, *95*, 103491. doi: 10.1016/j.irfa.2024.103491.

Tan, Y., Zhu, Z., Zeng, C., & Gao, M. (2014). Does external finance pressure affect corporate disclosure of Chinese non-state-owned enterprises?. *International Review of Financial Analysis*, *36*, 212–222. doi: 10.1016/j.irfa.2014.01.004.

Tan, Q., Yan, K., & Zou, G. (2024). Family involvement in management, social trust and the environmental responsibility performance of family firms. *Research in International Business and Finance*, *69*, 102291. doi: 10.1016/j.ribaf.2024.102291.

Tarkom, A., & Huang, X. (2023). Readjusting the speed of leverage adjustment during the COVID-19 pandemic?. *China Accounting and Finance Review*, *25*(4), 421–445. doi: 10.1108/cafr-11-2022-0117.

Tingbani, I., Afrifa, G. A., Tauringana, V., & Ntim, C. (2024). Trade credit and corporate growth. *International Journal of Finance & Economics*, *29*(1), 206–228. doi: 10.1002/ijfe.2683.

Downloaded from http://ftp.nowpublishers.com/cafr/article-pdf/doi/10.1108/CAFR-04-2025-0041/11584251/cafr-04-2025-0041en.pdf by guest on

Wang, Z., & Xu, H. (2024). Trust and inter-regional M&as: Evidence from China. *International Review of Economics & Finance*, *92*, 796–818.

Wang, X., Wu, W., Yin, C., & Zhou, S. (2019). Trade credit, ownership and informal financing in China. *Pacific-Basin Finance Journal*, *57*, 101177. doi: 10.1016/j.pacfin.2019.101177.

Wang, Y., Liu, B., Chan, H. K., & Zhang, T. (2023). Who pays buyers for not disclosing supplier lists? Unlocking the relationship between supply chain transparency and trade credit. *Journal of Business Research*, *155*, 113404. doi: 10.1016/j.jbusres.2022.113404.

Wang, W., Xu, Q., & Yang, E. (2024). Bargaining power and trade credit: The heterogeneous effect of credit contractions. *Journal of Banking & Finance*, *161*, 107109. doi: 10.1016/j.jbankfin.2024.107109.

Williamson, O. E. (1979). Transaction-cost economics: The governance of contractual relations. *The Journal of Law and Economics*, *22*(2), 233–261. doi: 10.1086/466942.

Wu, S., Gong, G., Huang, X., & Tian, H. (2022). The interaction between suppliers and fraudulent customer firms: Evidence from trade credit financing of Chinese listed firms. *Journal of Business Ethics*, *179*(2), 531–550. doi: 10.1007/s10551-021-04832-1.

Xiao, M., & Chen, N. (2025). How does social trust promote enterprises' financialization? *International Review of Financial Analysis*, *97*, 103819. doi:10.1016/j.irfa.2024.103819.

Xiao, Z., Li, Y., & Xiang, C. (2025). Do suppliers value customer firms' digital transformation? Evidence from trade credit provision. *International Review of Financial Analysis*, *99*, 103976. doi: 10.1016/j.irfa.2025.103976.

Xiu, Z., Liu, R., Feng, P., & Yin, J. (2023). Does social culture matter for firms' access to trade credit? Evidence from China. *Economic Modelling*, *119*, 106163. doi: 10.1016/j.econmod.2022.106163.

Yang, S., & Zhao, J. (2025). Disclosure quality ratings by the stock exchanges: Evidence from China. *China Accounting and Finance Review*, *27*(3), 340–363. doi:10.1108/cafr-09-2024-0161.

Yin, L., Han, Y., Shao, J., Dai, J., & Shou, Y. (2025). Does ESG rating divergence depress trade credit? A signaling theory perspective. *Transportation Research Part E: Logistics and Transportation Review*, *203*, 104369. doi: 10.1016/j.tre.2025.104369.

Yu, L., Ye, J., & Yang, L. (2025). From endowed trust to earned trust: Firms located in trusted regions. *International Review of Financial Analysis*, *104*, 104252. doi: 10.1016/j.irfa.2025.104252.

Zhang, J., & Chen, Z. (2023). Greening through social trust?. *Research in International Business and Finance*, *66*, 102061. doi: 10.1016/j.ribaf.2023.102061.

Zhang, M., Ma, L., Su, J., & Zhang, W. (2014). Do suppliers applaud corporate social performance?. *Journal of Business Ethics*, *121*(4), 543–557. doi: 10.1007/s10551-013-1735-x.

Zhang, Y., Liu, H., Li, S., & Xing, C. (2023). The digital transformation effect in trade credit uptake: The buyer perspective. *Emerging Markets Finance and Trade*, *59*(7), 2056–2078. doi: 10.1080/1540496x.2023.2172319.

Zhang, J., Mo, H., Hu, Z., & Zhang, T. (2024). The effect of stability and concentration of upstream and downstream relationships of focal firms on two-level trade credit. *International Journal of Production Economics*, *270*, 109173. doi: 10.1016/j.ijpe.2024.109173.

Zhou, T., Li, Z., Bai, H., Du, Z., Huang, J., & Ding, Z. (2024). Does unconventional monetary policy improve credit support for the industry chain? The mechanism of trade credit. *International Review of Economics & Finance*, *91*, 180–192. doi: 10.1016/j.iref.2023.12.009.

Zhu, H., & Wagner, E. (2024). Is corporate social responsibility a matter of trust? A cross-country investigation. *International Review of Financial Analysis*, *93*, 103127. doi: 10.1016/j.irfa.2024.103127.

Zhu, B., & Wang, Y. (2024). Does social trust affect firms' ESG performance?. *International Review of Financial Analysis*, *93*, 103153. doi: 10.1016/j.irfa.2024.103153.

Downloaded from http://ftp.nowpublishers.com/cafr/article-pdf/doi/10.1108/CAFR-04-2025-0041/11584251/cafr-04-2025-0041en.pdf by guest on

Further reading

Agostino, M., & Trivieri, F. (2014). Does trade credit play a signalling role? Some evidence from SMEs microdata. *Small Business Economics*, *42*(1), 131–151. doi: 10.1007/s11187-013-9478-8.

Fonseka, M., & Richardson, G. (2025). Public trust and bank branching regulation on personal loan grants and default risk: Evidence from regional commercial banks in China. *International Review of Finance*, *25*(1), e70003. doi: 10.1111/irfi.70003.

Tian, Y., Ang, J. S., Fu, P., Ma, C., & Wang, X. (2024). Does social trust mitigate insiders' opportunistic behaviors? Evidence from insider trading. *Global Finance Journal*, *59*, 100907. doi: 10.1016/j.gfj.2023.100907.

Corresponding author

Yang Wu can be contacted at: wyang@aufe.edu.cn

For instructions on how to order reprints of this article, please visit our website:
www.emeraldgrouppublishing.com/licensing/reprints.htm
Or contact us for further details: **permissions@emeraldinsight.com**

Downloaded from http://ftp.nowpublishers.com/cafr/article-pdf/doi/10.1108/CAFR-04-2025-0041/11584251/cafr-04-2025-0041en.pdf by guest on