Elsevier required licence: \mathbb{O} <2023>. This manuscript version is made available under the CC-BY-NC-ND 4.0 license http://creativecommons.org/licenses/by-nc-nd/4.0/
The definitive publisher version is available online at 10.1016/j.intfin.2023.101787

Does Strategic Deviation Influence Firms' Use of Supplier Finance?

Xiaomeng Charlene Chen Macquarie Business School Macquarie University Balaclava Road, North Ryde NSW 2109, Australia Email: charlene.chen@mq.edu.au

Stewart Jones*
The University of Sydney Business School
The University of Sydney
Camperdown NSW 2006, Australia

Email: stewart.jones@sydney.edu.au Phone: +61-2-9351 7755

Mostafa Monzur Hasan
Department of Accounting and Corporate Governance
Macquarie Business School, Macquarie University
Sydney, NSW 2109, Australia
Email: mostafa.hasan@mq.edu.au

Ruoyun Zhao
Finance Discipline Group, Faculty of Business
University of Technology Sydney
P.O. Box 123
Broadway, NSW 2007 Australia
Email: ruoyun.zhao@uts.edu.au

Nurul Alam
The University of Sydney Business School
The University of Sydney
Camperdown NSW 2006, Australia
Email: nurul.alam@sydney.edu.au

^{*} Corresponding author

Abstract

We investigate how strategic deviation, capturing the extent to which firms' resource

allocations or commitments deviate from those of industry peers, affects trade credit policy.

We find that it increases firms' use of supplier-provided trade credit. This finding is noticeably

more pronounced among firms exhibiting higher information asymmetry but perceptibly

weaker among firms with fewer financing constraints and stronger corporate governance

attributes. Our analysis also reveals that strategically deviant firms borrow less from banks and

that the use of more trade credit by strategically deviant firms is associated with higher market

valuation. Our results are robust and highlight that strategic deviation has important

implications for corporate trade credit policy.

Keywords: strategic deviation; trade credit; information asymmetry

JEL Classification: G30; G32; L10

1

1. Introduction

Firms often encounter the dilemma of whether to mimic the actions of their peers or to adopt distinctive resource allocation and competitive strategies. Strategic conformity refers to the extent to which a firm's strategies resemble those of its industry peers, whereas strategic deviation captures the extent to which a firm pursues different or novel strategies and resource allocations that deviate substantially from industry norms (Deephouse, 1996; Miller and Chen, 1996). In this study, we examine the impact of strategic deviation on firms' utilization of supplier-provided trade credit, a crucial alternative source of financing for many businesses.

When a firm chooses to deviate from the established strategic approach of its industry peers, it may gain first-mover advantages that can help it to outpace its competitors (Carpenter, 2000). A notable example is Apple's launch of the iPhone in 2007, which deviated from the then-existing mobile phone industry standards by introducing a touch screen and a new user interface. This strategic deviation allowed Apple to gain a competitive edge by creating a new market segment and pre-empting its competitors in entering that market. As a result, Apple was able to establish a dominant market position, which it has maintained for over a decade. Similarly, Capital One gained a competitive advantage in the credit card industry in the U.S. by deviating from the traditional commercial banking model and identifying an unexploited market segment. Specifically, it focuses on credit card lending to consumers with low credit scores, a strategy that has allowed it to establish itself as a leader in this niche. These examples highlight the significance of strategic deviation in enabling firms to establish distinct competencies that differentiate them from their competitors, secure a competitive position in the market, and generate higher profits.

Recent studies examine the effects of strategic deviation on firms' financing decisions, performance, and capital market consequences. Dong et al. (2021) find that firms' deviation from their peers' strategy positively affects their reliance on cash reserves, while Provaty et al.

(2022) document that it has a positive impact on short-term borrowing. Zhang and Rajagopalan (2010) observe that strategic deviation has both an adoptive and a disruptive effect on firms' performance. Ye et al. (2021) report that stock return synchronicity is lower for firms that deviate from industry norms, indicating that such firms' resource commitment restrains the inclusion of firm-specific information in their stock prices. Additionally, Hasan and Chen (2023) suggest that strategic deviation results in increased information asymmetry and heightened uncertainties regarding future performance, leading to an increase in idiosyncratic return volatility. In light of the significance of strategic deviation in shaping corporate policies, we are motivated to investigate how firms' unique strategic direction can affect their financing choices, particularly their utilization of supplier-provided trade credit.

Trade credit is a well-established financing option for businesses and has become a significant source of external financing in the U.S. According to the Federal Reserve Board (2022), the amount of trade payables in 2021 was almost three times larger than that of bank debt on the aggregated balance sheets of non-financial corporations in the U.S. The literature on trade credit identifies various factors that may influence firms' decision to use supplier finance, including information asymmetry (Fabbri and Menichini, 2010; Petersen and Rajan, 1997), financing constraints (Atanasova, 2007; Molina and Preve, 2012), growth and investment prospects (García-Teruel and Martínez-Solano, 2010), a superior creditworthiness evaluation by suppliers (Biais and Gollier, 1997; Chod et al., 2017), and better credit repayment enforcement than traditional lenders (Cunat, 2007; Zhang, 2019). Firms that pursue a distinct strategic direction typically invest in new technology, research and development, and marketing and have varying production cycles, cost structures, and capital structures (Carpenter, 2000; Ye et al., 2021), which may reduce their access to formal financing sources. As a result,

_

¹ We use the terms 'use of' and 'reliance on' trade credit interchangeably.

these firms may require alternative financing options, such as supplier-provided trade credit, to fund their operations.

We argue that firms deviating from industry norms may use more trade credit than their conforming peers for several reasons. First, strategic deviation may increase operational complexity and uncertainties (Carpenter, 2000; Holmstrom, 1982), leading to larger variations in financial performance (Tang et al., 2011) and lower access to traditional financing, such as bank debt (Hasan and Habib, 2023). Because suppliers have advantages in enforcing credit repayment and redeploying goods seized from customers in default (Atanasova, 2012; Cunat, 2007), strategically deviant firms may obtain and use trade credit as a substitute for bank debt. Second, from the information asymmetry perspective, strategic deviation leads to heightened information acquisition costs (Deephouse, 1999; Holmstrom, 1982) and restrains traditional lenders from assessing firms' creditworthiness fully and providing loans (Chen et al., 2017; Petersen and Rajan, 1997). By contrast, suppliers have an informational advantage as they can acquire information efficiently through regular business transactions with firms at a low cost (Biais and Gollier, 1997; Smith, 1987). Third, strategically deviant firms have high agency costs (Dong et al., 2021). From the agency cost perspective, suppliers face less moral hazard and are more likely to offer trade credit to firms with greater agency concerns (Burkart and Ellingsen, 2004). Building on these arguments, we posit that firms with higher strategic deviation are expected to make greater use of supplier finance (i.e., trade credit).

Following previous studies (e.g., Bednar et al., 2013; Dong et al., 2021; Ye et al., 2021; Zhang and Rajagopalan, 2010), we measure a firm's strategic deviation based on the extent to which its resource allocation pattern in critical strategic dimensions deviates from industry norms, including advertising, R&D and capital expenditures, overhead efficiency, inventory levels, and financial leverage. Using a sample of 89,248 U.S. firm-year observations from 1992 to 2020, our main regression results show that strategic deviation increases firms' tendency to

use supplier financing, indicating that firms with resource allocation patterns in critical strategic dimensions that are different substantially from industry norms have a higher propensity to turn to trade credit for external funding. The results are statistically and economically meaningful: a one-standard-deviation increase in a firm's strategic deviation results in a 13.89% (\$34.85 million) rise in trade credit financing relative to the sample mean. Our findings are robust to different estimations, different measures of trade credit, and alternative sample periods. Further, the sign and significance of our regression parameter estimates are robust across holdout samples.

We perform a series of analyses to address the endogeneity issues concerning omitted variable bias and reverse causality. To gauge the extent of omitted variable bias in our estimation, we determine the impact threshold for a confounding variable (ITCV) (Larcker and Rusticus, 2010) and Oster's (2019) bound estimates. The findings from both analyses indicate that omitted variable bias is not a significant issue for this study. We then estimate regressions using a changes form, lagged variables, and an instrumental variable approach. In all cases, our results remain unchanged.

To explore the potential mechanisms for the influence of strategic deviation on trade credit financing, we test the moderating effects of information asymmetry, financial constraints, and corporate governance attributes. In line with our conjecture, the effect of strategic deviation on trade credit is more evident for companies that are informationally opaque. In addition, this relationship attenuates for firms that are less financially constrained and that exhibit stronger corporate governance attributes.

Next, the implicit assumption underlying the link between strategic deviation and trade credit is that strategic deviation impedes firms' access to bank debt. Due to the underlying information asymmetry between suppliers and banks, firms with inadequate access to bank financing need to utilize more trade credit, which is typically more costly; thus, there is a

substitution effect (Biais and Gollier, 1997; Brennan et al., 1988; Chen et al., 2019; Petersen and Rajan, 1995). We directly examine the effect of strategic deviation on bank debt and find that it is negatively related to bank debt, consistent with the substitution effect. Finally, we investigate whether strategic deviation and utilization of trade credit affect firm value. Tang et al. (2011) document that strategically deviant firms tend to have extreme operational performance, reflecting extreme profits or losses. Using Tobin's Q as a valuation proxy, we find evidence that firms adopting a deviating strategy enjoy high firm valuations and that this valuation effect tends to be more pronounced when strategically deviant firms have more access to trade credit financing.

Our findings contribute to several strands of literature, including strategic management, accounting, and finance. First, we contribute to the literature that explores the determinants of supplier financing. While prior studies focus on the relationship between trade credit and firm-specific factors, such as accounting and financial characteristics (e.g., Chen et al., 2017; Cunat, 2007; Hasan et al., 2021; Yang and Birge, 2018), we present new insights into how firms' deviant strategies affect their financing decisions. By drawing on the concept of strategic deviation from the strategic management and organization literature, we offer new perspectives on the use of short-term financing options by firms seeking to increase their competitiveness in the current dynamic and complex business environment. Therefore, our findings advance the understanding of financing choices for strategically deviant firms.

Second, this study extends the emerging literature on business strategy. While most studies adopt the strategic typologies developed by March (1991), Miles and Snow (1978), or Porter (1980) to determine how different strategies affect managers' behaviour and corporate financial and non-financial decisions (Bentley et al., 2013; Cao et al., 2022; Yuan et al., 2020), we take a different approach by focusing on strategic deviation that is not inherent to any of the strategic typologies. Our study explores the trade credit policies of firms with resource

commitments that deviate substantially from the industry norms, shedding new light on the relationship between business strategy and financing decisions.

Finally, we extend the strategic management literature by investigating the capital market consequences of firms' strategic changes, especially in relation to their impact on corporate financing decisions. While previous studies identify factors such as the tenure and structure of the top management team (Finkelstein and Hambrick, 1990; Zhang, 2006), CEO compensation (Carpenter, 2000), and media coverage (Bednar et al., 2013) as determinants of firms' commitment to making changes to their resource allocation, the capital market consequences of deviating from industry norms receive relatively little attention. Our study addresses this gap by providing evidence that strategically deviant firms make extensive use of trade credit financing and borrow less from banks, highlighting the link between deviating strategies and corporate financing decisions.

The rest of the study is organized as follows. Section 2 reviews the literature and develops the hypothesis. Section 3 explains the research methodology. Section 4 describes the empirical findings, and Section 5 concludes the study.

2. Literature review and hypothesis development

2.1. Strategic deviation versus strategic conformity

The concepts of strategic deviation and strategic conformity have attracted substantial interest in different strands of the literature, including strategic management, organization, accounting, and finance (Deephouse, 1996, 1999; Dong et al., 2021; Provaty et al., 2022; Ye et al., 2021).² On the one hand, firms often face the challenge of balancing the need to maintain a similar

_

² The concept of strategic deviation is distinct from other strategic typologies – namely the concept of prospector, analyser, and defender (Miles and Snow, 1978), the cost leadership and product differentiation strategies (Porter, 1980), and the explorative and exploitative strategies (March, 1991). While these typologies identify a firm's competitive strategy based on its attributes of competency, such as the capability to identify and exploit new product and market opportunities, superior product quality, or strong brand identity, strategic deviation focuses on changes in a firm's pattern of resource commitments that depart from industry conventions.

strategy to their industry peers for legitimacy (strategic conformity) with the need to differentiate themselves from their peers to gain competitive advantages (strategic deviation). Institutional scholars believe that mimicking successful peers can result in acceptance by stakeholders and prevent penalties for deviation (Carpenter, 2000; DiMaggio and Powell, 1983). Strategic conformity has important implications for firms, including attaining legitimacy from regulators and stakeholders, securing critical resources, enhancing firm valuations, and reducing technological and market uncertainties (Deephouse, 1996; Dowell and Swaminathan, 2006; Zuckerman, 2000).

On the other hand, strategy scholars stress that it is crucial for firms to establish unique and valuable resources and distinct positions (Barney, 1991; Porter, 1996). This is because deviating from industry peers strategically can lead to higher business growth by pre-empting the competition through the development of new products and building competitive advantages through stronger brand loyalty and higher switching costs for existing customers (Kerin et al., 1992; Lieberman and Montgomery, 1988). Recent studies explore the effects of firms' strategic deviation on corporate financing decisions, performance, and capital market consequences. For example, Dong et al. (2021) and Provaty et al. (2022) report that firms' deviation from their peers' strategy has a positive impact on their reliance on cash reserves and short-term borrowing, respectively. Zhang and Rajagopalan (2010) observe that strategically deviant firms experience both an adoptive effect, which builds on their existing capabilities and competencies, and a disruptive effect, which stretches their resources excessively. They show that firms improve their performance when their degree of strategic deviation changes from slight to moderate but experience a decline in financial performance when their deviation increases from moderate to significant. Furthermore, Ye et al. (2021) document that firms deviating from industry norms have lower stock return synchronicity, suggesting that such firms' resource commitment restrains the inclusion of firm-specific information in the stock price. Additionally, Hasan and Chen (2023) provide evidence that firms' strategic deviation results in increased information asymmetry and heightened uncertainty regarding their future performance, leading to an elevation in their idiosyncratic return volatility. Given the importance of trade credit as a financing option, understanding the factors that influence firms' financing decisions, particularly in the context of unique or untested strategic directions, is critical. Therefore, this study seeks to examine how firms' strategic deviation from industry norms affects their utilization of supplier-provided trade credit.

2.2. Supplier-provided trade credit

Trade credit is an important source of financing for firms, especially those with limited access to traditional sources of financing. Previous research explores the reasons for the use of trade credit (Atanasova, 2007; Chod et al., 2017; Fabbri and Menichini, 2010; Zhang, 2019). For example, Cunat (2007) suggests that trade credit provides an implicit form of collateral that allows suppliers to recover some of their losses in the event of customer default. This facilitates transactions between suppliers and customers, particularly in situations in which access to other sources of financing is limited. García-Teruel and Martínez-Solano (2010) show that firms with higher growth opportunities tend to use more trade credit, suggesting that suppliers may be more willing to provide these firms with trade credit because they perceive them as having more potential for future business.

One of the key reasons for firms to use trade credit is the presence of asymmetric information between firms and external capital providers (Aktas et al., 2012; Ng et al., 1999). Traditional lenders, such as banks, may not provide loans to firms with higher information asymmetry as they may face difficulty in assessing their credit risk (Chen et al., 2017; Petersen and Rajan, 1997). Suppliers, conversely, have an informational advantage over traditional lenders as they can gather and evaluate information on firms' credit risk through their purchase order size, frequency, and payment history at a relatively low cost (Biais and Gollier, 1997;

Smith, 1987). As a result, firms may rely on supplier finance more when their access to external funding is limited (Huang et al., 2011).

The literature also suggests that firms with opaque information environments face high agency costs, which impede their access to bank credit and result in increased reliance on supplier finance (Atanasova, 2012; Burkart and Ellingsen, 2004; Ma and Ma, 2020). Burkart and Ellingsen (2004) suggest that suppliers tend to extend trade credit to firms with substantial agency concerns, whereas bank lenders are reluctant to do so. Ma and Ma (2020) provide empirical evidence that firms with high information opacity turn to supplier finance when banks are concerned about their agency conflicts. Atanasova (2012) reveals that suppliers' liquidation advantage over banks enables them to offer trade credit to firms facing high agency costs as suppliers can redeploy goods seized from customers in default more efficiently than banks.

Furthermore, firms with a higher risk-taking propensity often encounter difficulties in obtaining external financing; therefore, they may turn to trade credit as an alternative means of financing. For example, CEOs who hold private pilot licenses are perceived by external creditors as being more inclined to pursue risky corporate policies, prompting firms with pilot CEOs to rely on trade credit (Cain and McKeon, 2016). Elsilä (2015) suggests that executive risk-taking incentives are related positively to firm-level aggregate trade credit. In summary, trade credit research encompasses information asymmetry, agency cost, and risk-taking incentives as important drivers of firms' reliance on supplier financing instead of bank credit. We contribute to this literature by investigating how firms' strategic deviation from industry norms affects their use of trade credit.

2.3. Hypothesis development

We hypothesize a positive relationship between strategic deviation and trade credit for a number of reasons. First, trade credit is often used as a substitute for bank debt when firms have difficulty accessing traditional financing sources. For example, Chen et al. (2019) show that firms reduce their use of trade credit after the relaxation of bank credit, suggesting substitution between them. They also show that bank credit is more favourable for short-term financing than trade credit. Hasan and Habib (2023) and Huang et al. (2011) also find evidence suggesting a substitution relationship between trade credit and bank credit. Consequently, when firms improve their access to external financing, their use of supplier financing decreases significantly (Abdulla et al., 2017; Shang, 2020). As argued earlier, firms' deviant strategies increase the complexity and uncertainties inherent in their operations, which may be viewed as risky corporate policies (Carpenter, 2000; Holmstrom, 1982). As a result, traditional lenders, such as banks, may be less willing to extend credit to strategically deviant firms (Hasan et al., 2021; Xu et al., 2021). Nevertheless, suppliers have fewer concerns about the complexity and uncertainty of firms' operations because of their ability to enforce credit repayment and redeploy goods seized from customers in default (Atanasova, 2012; Cunat, 2007). Thus, based on the substitution argument, we predict that strategic deviation prompts firms to use more trade credit as a substitute for bank debt.³

Second, from the information asymmetry perspective, stakeholders, including bank lenders, incur higher information collection and processing costs to evaluate firms' future prospects when they adopt a strategy that deviates from industry norms (Litov et al., 2012). These elevated information acquisition costs make it difficult for bank lenders to assess thoroughly the creditworthiness of strategically deviant firms and provide loans (Chen et al., 2017; Petersen and Rajan, 1997). However, suppliers are better positioned to evaluate firms'

-

³ One may argue that trade credit serves as interest-free borrowing, and it may signal firms' quality and ability to retain cash for meeting working capital needs. Consequently, firms that strategically conform to industry norms or deviate from them may choose to use this alternative financing source. Nonetheless, a sizeable literature demonstrates that many firms fail to take advantage of early payment discounts, leading to a higher implicit cost of trade credit that surpasses traditional funding costs (Burkart and Ellingsen, 2004; Ng et al., 1999; Petersen and Rajan, 1997). For example, Ng et al. (1999) report that the classic '2/10 net 30' agreement (i.e., a 2% discount for payment within 10 days, with the net price due for payment within 30 days) results in an implicit interest rate of 43.9% for those who do not access the discount.

credit quality in a cost-effective and timely manner because they can obtain information through regular business transactions with them (Biais and Gollier, 1997; Smith, 1987). As a result, strategically deviant firms suffering from asymmetric information are more likely to turn to supplier finance as an alternative funding source.

Third, given their high degree of information opacity, firms with deviant strategies are perceived to have high agency costs. For instance, Dong et al. (2021) present evidence suggesting that such firms engage in cash hoarding owing to an agency motive. While traditional lenders are reluctant to provide credit to firms facing high agency costs, suppliers tend to offer trade credit to these firms because they lend inputs rather than cash, alleviating moral hazard problems (Burkart and Ellingsen, 2004). Building on the agency cost argument, we posit that strategic deviation increases a firm's tendency to use more supplier-provided trade credit.

Based on the above discussion, we form the following hypothesis:

H1: Strategic deviation increases a firm's use of supplier-provided trade credit.

3. Research method

3.1. Data and sample

Our initial sample includes all the non-financial and non-regulated (other than SIC codes 6000–6999 and SIC codes 4900–4999) U.S. public firms available in the Compustat–CRSP merged file during the period 1992–2020. We begin our sample in 1992 since the rolling standard deviation of operating cash flows during the five-year period used in our analysis is available from this year. We drop firm-year observations if any of the key variables used in the main estimation are missing. Our final sample size comprises 89,248 firm-year observations, which represent 10,315 firms.

⁴ The cash flow statement has been explicitly mandated in the U.S. since 1988.

3.2. Measurement of the variables

3.2.1. Strategic deviation

A firm's strategic deviation is reflected in its deviation from industry norms with respect to resource allocation (Carpenter, 2000). The prior accounting, finance, and strategy literature uses various financial ratios to capture firms' resource deployments in key strategic business activities. For example, Titman and Wessels (1988) use R&D and advertising expenses to capture firms' uniqueness. They argue that firms incur R&D expenses to promote innovation. Moreover, firms with unique products will require more advertisement and promotional expenses to sell their products. Additionally, Bentley et al. (2013) and Bertrand and Schoar (2003) employ capital intensity, employee ratios, and sales growth to capture the organizational strategies as well as the functional activities of firms. Lev et al. (2009) contend that selling, general, and administrative (SG&A) expenses represent firms' strategic investment in organizational capital, which boosts corporate competitiveness and culture. The prior literature also suggests that firms' capital structure reflects their capital management strategy as well as the costs and benefits associated with debt and equity financing (e.g., asset structure and tax shields) (Titman and Wessels, 1988).

Consistent with the prior literature (e.g., Bednar et al., 2013; Carpenter, 2000; Dong et al., 2021; Provaty et al., 2022; Tang, 2011; Ye et al., 2021), we use six principal ratio measures to gauge a firm's resource deployments in key business activities. These ratios are (1) net property, plant, and equipment (PPE) over gross PPE to recognize PPE newness and capacity extension, (2) inventories over sales to capture the working capital and production cycle strategy, (3) SG&A expenditure over sales to reflect the cost structure, (4) total debt over total equity to comprehend the capital structure, (5) advertising expenses over sales to capture the marketing strategy, and (6) R&D expenses over sales to recognize innovation. We standardize each of the six indicators according to the industry and year, then we calculate the absolute

values of the difference between a firm's score and the industry average in each strategic dimension. Finally, we sum these standardized scores to obtain the strategic deviation score (STR_DEV).

3.2.2. Trade credit

For the purposes of this study, we use two dependent variables based on the accounts payable number reported in company financial statements. We use accounts payable as a proportion of the cost of goods sold (*AP/COGS*) and accounts payable as a proportion of sales (*AP/SALE*) as our primary measures of trade credit. Given that the COGS represents the average purchase cost, our first measure (i.e., *AP/COGS*) reflects the percentage of the overall purchases that is financed by supplier-provided trade credit (Zhang, 2019). Our second measure (i.e., *AP/SALE*) reflects the fraction of the total sales funded by suppliers. While these measures are extensively employed in the trade credit literature (Abdulla et al., 2017; Hasan et al., 2021; Shang, 2020; Zhang, 2019), we explore a number of alternative trade credit metrics in the robustness tests.

3.3. Regression model

We estimate the following firm fixed-effect regression model to assess strategic deviation's effect on the use of trade credit:

$$AP = \beta_0 + \beta_1 STR \ DEV + Controls + \varphi + \gamma + \varepsilon$$
 (1)

where the dependent variable, AP, is proxied by AP/COGS and AP/SALE and our principal variable of interest is strategic deviation (STR_DEV). φ and γ indicate firm and year fixed effects, and ε is the error term.

Consistent with other studies (D'Mello and Toscano, 2020; Hasan and Alam, 2022; Hasan et al., 2021; Petersen and Rajan, 1997; Shang, 2020), we include a set of control variables. For instance, earlier studies argue that larger firms tend to have easier access to

financial markets and thus may use less trade credit and more of other forms of financing (e.g., banks) (Petersen and Rajan, 1997). However, it is also plausible that larger firms have more proven track records and receive favourable trade credit financing (Wu et al., 2014). We use the natural logarithm of market capitalization (*FSIZE*) to capture the effect of firm size on trade credit. Studies also indicate that firms with higher financial leverage, distress, financing constraints, and volatility and firms without a credit rating as well as firms holding lower level of liquid assets (e.g., cash and equivalents) may face tightening credit terms (Huyghebaert, 2006; Molina and Preve, 2009; Petersen and Rajan, 1997). Therefore, we control for financial leverage (*LEV*), distress – a risk indicator variable that equals one if the Altman (1968) Z-score is higher than 1.81 and zero otherwise (indicating a higher propensity for a firm to become bankrupt) to control for risk, the financial constraint (*FC*) measure of Whited and Wu (2006), the rolling standard deviation of operating cash flows over total assets over the five-year period (*CFVOL*), credit rating – an indicator variable that equals one if a firm is rated by credit rating agencies in a given year (*RATING*), and liquidity holdings (*CASH*).

The prior literature documents that firms with more growth opportunities use more trade credit as a substitute for alternative sources of financing (Wu et al., 2014). We include sales growth ($\Delta SALE$), the market-to-book ratio (MTB), and research and development (R&D) intensity as proxies for growth opportunities. We also control for capital intensity (CAP_INT) and return on assets (ROA) as well as firm maturity, which is measured as retained earnings over total assets (RE/TA). This is because capital-intensive, profitable, and mature firms have more access to formal financing sources, which may affect their use of trade credit (Hasan et al., 2021; Petersen and Rajan, 1997). The definitions of the variables are reported in Appendix A.

⁵ Our findings remain qualitatively similar if we use the life cycle measures of Dickinson (2011) (results untabulated).

4. Empirical findings

4.1. Summary statistics

Table 1 presents the descriptive statistics for our variables of interest. It shows that, on average, accounts payable represent 17.5% of the cost of goods sold and 11.8% of the total sales, figures that are broadly consistent with those of prior studies (D'Mello and Toscano, 2020; Hasan et al., 2021). Moreover, the mean (median) value of the strategic deviation score is 2.66 (2.16). The natural logarithm of the mean (median) firm size is 5.79 (5.71), the MTB ratio is 1.74 (1.23), the ROA is 0.06 (0.10), and financial leverage is 0.20 (0.17). The average (median) firm holds 19.8% (11.3%) of its total assets in cash and spends 5.9% (0.08%) of its total assets for R&D purposes. In general, the descriptive statistics are consistent with the prior literature (D'Mello and Toscano, 2020; Hasan et al., 2021; Shang, 2020).

[TABLE 1 HERE]

4.2. Correlation

Table 2 exhibits the pairwise correlation between the variables. We observe that STR_DEV is positively correlated with AP/COGS ($\rho = 0.08$; p < 0.01) and AP/SALE ($\rho = 0.20$; p < 0.01), which provides preliminary support for our hypothesis. Trade credit is also positively correlated with MTB, $\Delta SALE$, CASH, FC, R&D, and CFVOL. Moreover, trade credit is negatively correlated with ROA, LEV, RATING, RE/TE, and ZSCORE. Our untabulated analysis shows that the highest (average) variance inflation factor value is 2.94 (2.01), indicating that multicollinearity does not pose a significant problem for our study (Gujarati, 2004).

[TABLE 2 HERE]

4.3. Main regression results

Table 3 presents the main multivariate regression results between strategic deviation and supplier-provided trade credit. We employ two measures of trade credit as the dependent variable (AP/COGS and AP/SALE). In Columns (1) and (2), we report the firm fixed-effect (FFE) regression results. We find that the coefficients for STR_DEV are both positive and significant (p < 0.01), indicating that strategically deviant firms use more supplier-provided trade credit as a source of financing. Moreover, this finding is not economically trivial. For instance, the coefficient (= 0.013) in Column (1) suggests that a one-standard-deviation (= 1.87) increase in STR_DEV increases the supplier-financed trade credit by 13.89% relative to the mean (calculated as (0.013 * 1.87) / 0.175 = 0.1389), which can be translated further as a rise in accounts payable by \$34.85 million (= \$250.93 * 13.89%, where \$250.93 is the sample mean accounts payable).

Columns (3) and (4) repeat the analysis, employing ordinary least squares (OLS) regression, in which the errors are heteroskedasticity robust and clustered by firm. We find consistent positive and significant (p < 0.01) coefficients for STD_DEV . The economic significance estimated using the regression coefficients reveals that a one-standard-deviation increase in STR_DEV increases AP/COGS and AP/SALE by 16.03% and 30.11%, respectively, relative to the mean. To bolster our findings further, in Columns (5) and (6), we re-estimate the regressions using the high-dimensional fixed effect (HDFE), in which we include both firm and year * industry fixed effects along with firm-level controls. We observe consistent evidence that corporate strategic deviation increases the use of supplier-provided trade credit, which is statistically significant (p < 0.01) and economically meaningful, as described above.⁶

⁶ Our inference remains qualitatively similar when we include firm, year, and industry (text-based network industry classification developed by Hoberg and Phillips (2016)) fixed effects (see Online Appendix Table A.1).

With respect to the controls, we observe that larger, higher-growth, financially constrained, and volatile firms tend to use more trade credit, which is in line with prior studies (e.g., Abdulla et al., 2017; Hasan and Alam, 2022). We also find that profitable, financially leveraged, and cash-rich firms and firms experiencing less financial distress tend to use less supplier-provided financing, corroborating the findings from earlier studies (e.g., Alphonse et al., 2004; Hasan and Alam, 2022). Taken together, the findings from Table 3 provide robust support for our main hypothesis that firms that strategically deviate from their industry peers appear to use more trade credit as a source of financing.

[TABLE 3 HERE]

4.4. Endogeneity tests

Our results suggest that strategically deviant firms are more reliant on trade credit. However, it is arguable that trade credit may also prompt firms to adopt a deviant business strategy, which raises concerns about the reverse causality problem. In addition, it is conceivable that both trade credit and strategic deviation could be influenced by the same unobserved firm-specific factors, presenting the possibility of an omitted variable problem. We employ several empirical strategies to alleviate these endogeneity concerns.

4.4.1. Omitted variable bias test using the ITCV

To address the concern about omitted variable bias, we first estimate the impact threshold of a confounding variable (ITCV) indicator (Larcker and Rusticus, 2010). This statistical procedure

_

⁷ We acknowledge the prior literature (e.g., Zhang et al., 2020) that shows that CSR performance influences suppliers' decisions to offer trade credit. Our main regression model does not include the CSR performance score as including it would reduce our sample size by about 75%. Nonetheless, our main result remains robust when we control for the life cycle measures of Dickinson (2011) and the CSR scores simultaneously (see Table A.2) or individually (untabulated).

⁸ We notice that two control variables, namely ΔSALE and CASH, display opposing signs for AP/COGS and AP/SALE. This could be due to the usage of different denominators. We note that these conflicting signs are not uncommon in the literature. For example, Hasan et al. (2021) find opposite signs for ΔSALE when using alternative measures of accounts payable. Similarly, Abdulla et al. (2017) report different signs for CASH while utilizing alternative measures of accounts payable. Hasan and Alam (2022) also find similar evidence.

assesses the effect of omitted variables on parameter estimates and thereby helps to identify confounding variables that might exist in the data. In the context of our study, the ITCV estimates how correlated an omitted variable must be with trade credit and strategic deviation to invalidate our main result.

Table 4, Panel A shows that the threshold value for strategic deviation is 0.190 for *AP/COGS* and 0.205 for *AP/SALE*, respectively. We notice that the ITCV is much larger than the raw and partial impacts of the control variables, which suggests that our main results are not prone to the omission of a confounding variable.

4.4.2. Tests for omitted variable bias using Oster (2019)

As a further attempt to alleviate omitted variable bias, we implement the Oster (2019) bound approach. According to this technique, if the bounded set includes a non-zero value, the true effect of treatment on the outcome variable is not zero and thus the main regression estimates are robust. Following earlier studies (e.g., Fiordelisi et al., 2019; Gao and Huang, 2020), we set $\delta = 1$ and $R_{\text{max}} = \min(1.3\tilde{R}, 1)$ as model inputs. Panel B of Table 4 indicates that the identified set for both AP/COGS and AP/SALE includes non-zero values, suggesting that our main regression results are not driven by omitted correlated variables.

[TABLE 4 HERE]

4.4.3. Change analysis

To address the potential reverse causality problem, we conduct a change regression analysis. In particular, we estimate how the change in strategic deviation affects the change in trade credit after controlling for the change in controls. The change regression results in Columns (1) and (2) of Table 5 show a significantly positive relationship between the change in strategic deviation and the change in trade credit (p < 0.01). This finding indicates that an increase in

strategic deviation causes companies to rely more on suppliers' provided trade credit, alleviating the concern about the reverse causality problem.

4.4.4. Lagged regression

To mitigate the reverse causality issues further, we run lead–lag regressions in which we regress the trade credit of year t+1 on the strategic deviation and controls of year t. The results displayed in Columns (3) and (4) of Table 5 show a significant and positive coefficient for lagged strategic deviation (p < 0.01). As it is self-evidently not possible for trade credit in year t+1 to affect the strategic deviation in year t, this analysis suggests that the documented positive relation between strategic deviation and trade credit is unlikely to be influenced by the reverse causality problem.

4.4.5. Two-stage least squares regression

Finally, we utilize an instrumental-variable regression to alleviate the endogeneity concerns. Following earlier studies (Campbell et al., 2020; Dong et al., 2021), we use the geographical distance between a focal firm and the largest strategically deviant firm located in the same state as the instrumental variable. The literature suggests that peer influence plays a crucial role in shaping corporate decisions and policies (Brown et al., 2008; Pool et al., 2015). Consequently, it makes sense to expect that the strategic deviation of the focal firm is negatively correlated with the distance from the largest deviant-strategy firm in the same state (*DISTANCE*). However, it is unlikely that *DISTANCE* has any direct influence on trade credit.

Columns (5) to (7) of Table 5 present the 2SLS regression results. The first-stage result in Column (5) reveals that our instrumental variable (i.e., DISTANCE) is significantly and

20

⁹ We obtain latitude and longitude data for the headquarters of firms from Bill McDonald's website (https://sraf.nd.edu/data/). We utilize the Stata code (geodist) to calculate the distance variable.

negatively related to strategic deviation (p < 0.01), supporting our earlier prediction. We also note that the F-statistic of the first-stage regression (=319.77) is higher than the Stock and Yogo (2005) critical value, suggesting that weak identification is not a concern for our estimation. The under-identification test results show that the excluded instruments are 'relevant', demonstrating the validity and strength of our instrument. Columns (6) and (7) present the second-stage regression results. We observe that the coefficient for instrumented strategic deviation remains significant and positive for both measures of trade credit: AP/COGS (coeff. = 0.018, p < 0.01) and AP/SALE (coeff. = 0.030, p < 0.01). Overall, the 2SLS regression indicates that our main result is unlikely to be influenced by endogeneity problems.

[TABLE 5 HERE]

4.5. Cross-sectional analysis

Now we investigate how the relationship between strategic deviation and trade credit differs cross-sectionally depending on the information environment, financing constraints, and corporate governance structure.

4.5.1. The moderating role of the information environment

First, we establish whether the information environment moderates the relationship between strategic deviation and trade credit. Studies show that firms suffering from information asymmetry tend to use more trade credit as a superior information advantage of suppliers over financial institutions, allowing them to assess the credit quality of customers and enforce credit agreements (e.g., Fabbri and Menichini, 2010; Petersen and Rajan, 1997). Suppliers are able to comprehend the intricacies of the customer's business and are inclined to offer credit even when banks are hesitant to do so. Because of this informational advantage, suppliers are better able to offer trade credit to their customers and reduce their exposure to their customers'

riskiness. Therefore, we expect the impact of strategic deviation on trade credit to be stronger among firms with high information asymmetry.

We test the above conjecture using three information asymmetry measures, including Amihud's (2022) illiquidity (ILLIQ), the absolute value of discretionary accruals (|DAC|) estimated from the cross-sectional regressions for each industry (2-digit SIC codes) and year using the modified Jones model augmented with the return on assets (Kothari et al., 2005), and the moving sum of |DAC| over the three-year period (OPAQUE) (Michael et al., 2022). A higher value of these measures indicates a higher level of information asymmetry. In our analysis, we use an indicator variable that equals one if the information asymmetry measures are higher than the sample median and zero otherwise. We then augment the main regression in Model (1) with the information asymmetry proxy and interaction between strategic deviation and information asymmetry measures. Our key variable of interest is the interaction term.

Panel A of Table 6 shows that the coefficients of the interaction terms (STR_DEV* | DAC|, $STR_DEV*ILLIQ$, and $STR_DEV*OPAQUE$) are significant and positive (p < 0.01), indicating that the positive association between strategic deviation and trade credit magnifies in the presence of asymmetric information. These results remain robust for both measures of trade credit. Overall, the findings in Panel A of Table 6 are consistent with our conjecture that strategically deviant firms with high information asymmetry use more supplier financing.

4.5.2. The moderating role of financing constraints

Financial constraints play an important role in determining firms' trade credit use. Studies suggest that firms that face greater difficulties in securing financing from external sources turn to trade credit as an alternative source of financing (Atanasova, 2007; Molina and Preve, 2012). Building on these findings, we argue that, to the extent that strategic deviation restricts firms' access to external financing, the positive relationship between strategic deviation and trade

credit should be particularly more (less) pronounced for firms with more (fewer) financial constraints.

We employ three measures of financial constraints: the credit rating status (Denis and Siblikov, 2010), Z-score (Altman, 1968), and WW index (Whited and Wu, 2006). The credit rating (*RATING*) is an indicator variable that equals one if firms have long-term debt ratings issued by Standard and Poor's and zero otherwise. We also use the *Z_SCORE* (*FC_WW_LOW*) indicator if the score is higher (lower) than the sample median. Thus, *RATING*, *Z-SCORE*, and *FC_WW_LOW* indicate that firms have lower levels of financing constraints. We interact these financial constraint measures with *STR_DEV* to determine how financing constraints affect the relationship between strategic deviation and trade credit.

Panel B of Table 6 indicates that the coefficients for the interaction terms (i.e., STR_DEV * RATING, STR_DEV * Z-SCORE, and STR_DEV * FC_WW_LOW) are negative and highly significant (p < 0.01 in most cases), suggesting that the relationship between strategic deviation and trade credit is less pronounced for less financially constrained firms. ¹⁰ This finding thus implies that financing constraints moderate the association between strategic deviation and trade credit.

4.5.3. The moderating role of corporate governance

Finally, we explore the moderating role of corporate governance attributes. Prior studies show that better corporate governance eases firms' access to external financing, which in turn reduces their dependence on supplier-provided trade credit (Ashbaugh-Skaife et al., 2006; Hasan et al., 2022). Since strong corporate governance mechanisms reduce firms' difficulty with external financing, it is intuitive to predict that the positive relationship between strategic

23

¹⁰ Our inference remains qualitatively similar when a text-based measure of financing constraints (Hoberg and Maksimovic, 2015) is used in the analysis (see Table A.3).

deviation and trade credit is more (less) pronounced for firms with weak (strong) corporate governance.

We use three measures of corporate governance, specifically institutional shareholding (INST), the takeover susceptibility index (HOSTILE) following Cain et al. (2017), and the number of analysts following a firm in a year (ANALYST). Prior studies indicate that firms with more institutional shareholdings, higher takeover susceptibility, and a larger analyst following are subject to more external monitoring and therefore are associated with fewer agency problems (Atawnah et al., 2023; Cain et al., 2017; Chung and Zhang, 2011; Chung et al., 2002). We use indicator variables if the governance scores are higher than the sample median and zero otherwise. We augment the baseline regression with the corporate governance variable and the interaction terms with strategic deviation. We expect the positive relationship between strategic deviation and trade credit to be stronger (weaker) in the presence of weak (strong) corporate governance.

Consistent with our expectation, Panel C of Table 6 shows a significantly negative coefficient for the interaction variables (i.e., *STR_DEV* * *INST*, *STR_DEV* * *HOSTILE*, and *STR_DEV* * *ANALYST*), suggesting that the impact of strategic deviation on trade credit is less pronounced for firms with strong corporate governance.

[TABLE 6 HERE]

4.6. Sensitivity analysis

4.6.1. Alternative regression models

Recall that our main analysis uses three regression models (i.e., FFE, OLS, and HDFE) to assess the impact of strategic deviation on trade credit (see Table 3). Now, we employ three different regression specifications: Fama–MacBeth, Newey–West, and weighted least squares. We re-estimate our main regression using these alternative regression models in Panel A of

Table 7. We observe that the coefficient for *STD_DEV* remains positive and significant at the 1% level, suggesting the robustness of our results.

4.6.2. Alternative measures of trade credit

Now we employ three additional measures of trade credit, specifically accounts payable over total liabilities (AP/TL), accounts payable turnover (AP_TURN), and accounts payable over purchases (AP/PUR). Panel B of Table 7 shows that the positive effect of strategic deviation on trade credit remains robust (p < 0.01) when these alternative measures are used in the estimation.

4.6.3. Alternative sample periods

To assess the robustness of our main findings, in this section, we employ alternative sample periods. In Column (1), we re-estimate the main regression after removing the global financial crisis (GFC) period (2007–2008). In Column (2), we estimate the baseline regression after excluding the recession periods, defining recession according to the methodology of the National Bureau of Economic Research. Finally, in Columns (3) to (5), we estimate the results for three sub-sample periods: 1992-2000, 2001-2010, and 2011-2020. In all cases, we find that our main regression estimates remain robust (p < 0.01). This result suggests that our main result is not driven by the GFC, a recession, or any particular sample period.

4.6.4. Holdout samples

Recent research focuses on the limitations of contemporary empirical accounting and finance research, particularly over-reliance on OLS regression models and significance testing, in drawing inferences about the effectiveness of statistical models and explanatory variables. This has led to suspicions of widespread *p*-hacking and the excessive reporting of false positives across the literature (Dyckman, 2016; Dyckman and Zeff, 2015; Harvey, 2017; Kim et al., 2018;

Ohlson, 2015, 2022). As noted by Ohlson (2015, 2022), part of this problem stems from the fact that most empirical studies do not use test or holdout samples, which can provide some levels of assurance that the models are not overfitted on training samples (Schorfheide and Wolpin, 2012). Holdout samples can also provide a measure of external validation and can mitigate concerns about data-snooping and selection biases (Barber and Lyon, 1997; Schorfheide and Wolpin, 2012). Panel D of Table 7 reports the regression results with holdout samples of 25%, 20%, and 10%, employing the same variables as the baseline regression.

As shown in Columns (1) to (6), the coefficients for STR_DEV remain positive and significant (p < 0.01) irrespective of the use of the three different holdout samples. This result confirms that our main analysis is not driven by specific sample and selection problems. We further employ k-fold cross-validation to recheck our results (Kuhn and Johnson, 2013). Applying five-fold and ten-fold cross-validation procedures results in qualitatively similar findings.

[TABLE 7 HERE]

4.7. Additional analysis

4.7.1. Different dimensions of strategic deviation and trade credit

Recall that, following the prior literature (e.g., Carpenter, 2000; Dong et al., 2021; Provaty et al., 2022; Ye et al., 2021), we calculate the absolute value of the difference between a firm's score and the industry average in six strategic dimensions to gauge the firm's strategic deviation. These dimensions are (i) net PPE over gross PPE (STR_DEV_PPE), (ii) inventories over sales (STR_DEV_INVT), (iii) SG&A expenditure over sales (STR_DEV_OHEAD), (iv) total debt over total equity (STR_DEV_FLEV), (v) advertising expenses over sales (STR_DEV_ADV), and (vi) R&D expenses over sales ((STR_DEV_R&D)). In this section, we

consider whether our documented result is driven by any specific dimension of strategic deviation.

In Table A.4, we regress trade credit (AP/COGS) on each dimension of strategic deviation separately (Columns 1–6). Our findings suggest that each dimension of strategic deviation has a positive and significant association with trade credit (p < 0.05 or better). Subsequently, we perform a regression analysis that includes all the strategic dimensions simultaneously (Column 7) and observe that the results remain consistent for all the dimensions except $STR_DEV_R\&D$. When we use AP/SALE as the measure of trade credit, we find positive and significant coefficients (p < 0.01) for four out of the six strategic deviation dimensions (Column 8).

4.7.2. Strategic deviation and bank debt

The results so far appear to confirm that strategic deviation increases firms' short-term borrowing from suppliers. We argue that deviant firms use more trade credit, possibly owing to market imperfections such as the presence of information asymmetry (Smith, 1987; Ye et al., 2021), credit rationing (Biais and Gollier, 1997), and risk shifting (Chod, 2017) that limit firms' access to external financing. The substitution view posits that, when firms have restricted access to formal finance, they rely more on trade credit. Compared with banks, suppliers have a comparative advantage in acquiring information, repossessing goods, and limiting moral hazard problems (Burkart and Ellingsen, 2004; Ng et al., 1999). Thus, we examine the substitution effect as well as the association between strategic deviation and bank debt by using two proxies for bank debt: bank loans to total liability and the natural logarithm of bank debt. The results are displayed in Table 9.

In Columns (1) and (2) of Table 8, the results indicate that the impact of strategic deviation on bank debt is significantly negative (coefficients ranging between -0.003 and -

0.006; p < 0.01), consistent with the argument that strategically deviant firms obtain less bank financing. The results in Columns (3) and (4) show a similar negative impact of strategic deviation on the natural logarithm of bank debt, consistent with the previous evidence that trade credit substitutes insufficient formal financing and that such a substitution effect is stronger when there is more severe information asymmetry and credit rationing (Biais and Gollier, 1997; Chen et al., 2019).

[TABLE 8 HERE]

4.7.3. Strategic deviation, trade credit, and firm performance

In this section, we investigate how the market assesses the use of higher trade credit by strategically deviant firms. Prior studies indicate that the borrowing policies of firms affect their performance. For example, Box et al. (2018), Ferrando and Mulier (2013), and Fisman and Love (2003) show that trade credit improves firms' profitability and growth, reduces information asymmetry, increases stock returns, and contributes to industry growth. Following previous studies (e.g., Jory et al., 2020), we use Tobin's Q as a valuation proxy to determine whether the interaction between strategic deviation and trade credit affects a firm's market value. In the regression model, we regress Tobin's Q at t+1 on strategic deviation and control variables at time t and present the results in Table 9.

In Columns (1) and (2), we investigate how the interaction between strategic deviation and AP/COGS ($STR_DEV * AP/COGS$) affects Tobin's Q. We find that the coefficient for STR_DEV is positive (= 0.022) and significant at the 1% level, which supports the argument that deviant strategies can improve firm value, consistent with previous findings (Box et al., 2018; Zhang and Rajagopalan, 2010). Interestingly, the interaction term ($STR_DEV * AP/COGS$) is significant and positive, suggesting that using more supplier-provided trade credit is value increasing for deviant firms. These results are consistent with the idea that

strategic deviation can improve firms' competitiveness and performance, leading to a higher market valuation. Furthermore, this positive effect of strategic deviation on market valuation is amplified when trade credit financing is available to deviant firms.

In Columns (3) and (4), we repeat the analysis using *AP/SALE* as a measure of trade credit. Again, we find that the interaction variable between strategic deviation and *AP/SALE* is significantly positive, which indicates that, for strategically deviant firms, using more trade credit can lead to a higher market valuation.

Overall, we interpret the findings in Table 9 as being consistent with the notion that supplier finance enhances market value for strategically deviant firms as the trade credit buffer provides a financial cushion against uncertainty and facilitates these firms' overcoming of financial constraints that would otherwise have prevented them from taking on more value-increasing investments. The positive effect of the interaction of strategic deviation and trade credit is also consistent with the signalling view that trade credit financing from suppliers sends a positive signal about firms' quality and future prospects, which in turn enhances the market value of deviant firms.

[TABLE 9 HERE]

5. Conclusion

Using a large sample of publicly listed U.S. firms, we examine the effect of firms' strategic deviation on supplier finance. We find that strategic deviation increases a firm's tendency to use supplier finance. Our results are robust to endogeneity concerns surrounding omitted variable bias and reverse causality as well as different model specifications, including a changes form, lagged variables, and an instrumental variable approach as well as other sensitivity tests and analyses. Cross-sectional tests reveal that the observed effect is more pronounced among strategically deviant firms with higher information asymmetry, weaker external governance attributes, and greater financial constraints. Our results are broadly

consistent with the information asymmetry, agency motive, and financing constraints that drive deviant firms to make greater use of trade credit.

Furthermore, we analyse the mechanism underlying the positive effect of strategic deviation on trade credit and find that strategic deviation is negatively related to bank debt, consistent with the argument that strategic deviation impedes a firm's access to external financing, such as bank debt. Finally, we show that strategically deviant firms benefit from higher market valuation when they rely more on trade credit, implying that investors perceive corporate deviant strategies aimed at creating competitive advantages positively.

The findings from our study contribute to the emerging literature that explores the capital market implications of strategic deviation in firms (e.g., Dong et al., 2021; Provaty et al., 2022; Ye et al., 2021). Our study also contributes to the trade credit and credit risk literature by highlighting the influence of strategic deviation on supplier-provided trade credit (Casey and O'Toole, 2014; Chod et al., 2019; Hasan et al., 2022; Petersen and Rajan, 1997). Overall, our study enhances our comprehension of the capital market implications of firms' strategic choices, particularly in the context of the fast-paced and complex business environment in which firms operate to increase their competitiveness.

We acknowledge that our study may be subject to a few limitations. For example, the strategic deviation measure used in our study is based on six ratios. It is possible that our measure omits some other ratios that may play a role in shaping corporate strategy. Moreover, although we adopt several approaches to allay endogeneity concerns, we acknowledge that we are unable to do so completely because an ideal shock to strategic deviance is not readily available. Moreover, we encourage future studies to exploit advanced machine learning models to understand the relative importance of strategic deviation in affecting trade credit. Finally, future research may explore how strategic deviation affects trade credit directly and indirectly through information asymmetry, corporate governance, and financing constraint channels.

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.
- Aktas, N., Bodt, E.D., Lobez, F., Statnik, J.C., 2012. The information content of trade credit. Journal of Banking & Finance 36, 1402-1413.
- Alphonse, P., Ducret, J., Séverin, E., 2006. When trade credit facilitates access to bank finance: Evidence from US small business data. In MFS (Istanbul) Meetings Paper.
- Altman, E.I., 1968. Financial ratios, discriminant analysis and the prediction of corporate bankruptcy. Journal of Finance 23, 589-609.
- Amihud, Y., 2002. Illiquidity and stock returns: Cross-section and time-series effects. Journal of Financial Markets 5, 31-56.
- Ashbaugh-Skaife, H., Collins, D.W., LaFond, R., 2006. The effects of corporate governance on firms' credit ratings. Journal of Accounting and Economics 42(1-2), 203-243.
- Atanasova, C., 2007. Access to institutional finance and the use of trade credit. Financial Management 36(1), 49-67.
- Atanasova, C., 2012. How do firms choose between intermediary and supplier finance? Financial Management 41, 207-228.
- Atawnah, N., Zaman, R., Liu, J., Atawna, T., Maghyereh, A., 2023. Does foreign competition affect corporate debt maturity structure? Evidence from import penetration. International Review of Financial Analysis 86, 102539.
- Barber, B.M., Lyon, J.D., 1997. Firm size, book-to-market ratio, and security returns: A holdout sample of financial firms. Journal of Finance 52(2), 875-883.
- Barney, J., 1991. Firm resources and sustained competitive advantage. Journal of Management 17, 99-120.
- Bednar, M.K., Boivie, S., Prince, N.R., 2013. Burr under the saddle: How media coverage influences strategic change. Organization Science 24, 910-925.
- Bentley, K.A., Omer, T.C., Sharp, N.Y., 2013. Business strategy, financial reporting irregularities, and audit effort. Contemporary Accounting Research 30, 780-817.
- Bertrand, M., Schoar, A., 2003. Managing with style: The effect of managers on firm policies. Quarterly Journal of Economics 118, 1169-1208.
- Biais, B., Gollier, C., 1997. Trade credit and credit rationing. Review of Financial Studies 10, 903-937.
- Box, T., Davis, R., Hill, M., Lawrey, C., 2018. Operating performance and aggressive trade credit policies. Journal of Banking & Finance 89, 192-208.
- Brennan, M.J., Maksimovics, V., Zechner, J., 1988. Vendor financing. Journal of Finance 43, 1127-1141.

- Brown, J.R., Ivković, Z., Smith, P.A., Weisbenner, S., 2008. Neighbors matter: Causal community effects and stock market participation. Journal of Finance 63, 1509-1531.
- Burkart, M., Ellingsen, T., 2004. In-kind finance: A theory of trade credit. American Economic Review 94, 569-590.
- Cain, M.D., McKeon, S.B., 2016. CEO personal risk-taking and corporate policies. Journal of Financial and Quantitative Analysis 51, 139-164.
- Cain, M.D., McKeon, S.B., Solomon, S.D., 2017. Do takeover laws matter? Evidence from five decades of hostile takeovers. Journal of Financial Economics 124(3), 464-485.
- Campbell, J.L., Guan, J.X., Li, O.Z., Zheng, Z., 2020. CEO severance pay and corporate tax planning. Journal of the American Taxation Association 42(2), 1-27.
- 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.
- Carpenter, M.A., 2000. The price of change: The role of CEO compensation in strategic variation and deviation from industry strategy norms. Journal of Management 26(6), 1179-1198.
- Casey, E., O'Toole, C.M., 2014. Bank lending constraints, trade credit and alternative financing during the financial crisis: Evidence from European SMEs. Journal of Corporate Finance 27, 173-193.
- Chen, D., Liu, M., Ma, T., Martin, X., 2017. Accounting quality and trade credit. Accounting Horizons 31, 69-83.
- Chen, S., Ma, H., Wu, Q. 2019. Bank credit and trade credit: Evidence from natural experiments. Journal of Banking & Finance 108, 105616.
- Chod, J., 2017. Inventory, risk shifting, and trade credit. Management Science 63(10), 3207-3225.
- Chod, J., Lyandres, E., Yang, S.A., 2019. Trade credit and supplier competition. Journal of Financial Economics 131(2), 484-505.
- Chung, K.H., Zhang, H., 2011. Corporate governance and institutional ownership. Journal of Financial and Quantitative Analysis 46, 247-273.
- Chung, R., Firth, M., Kim, J.B., 2002. Institutional monitoring and opportunistic earnings management. Journal of Corporate Finance 8(1), 29-48.
- Cunat, V., 2007. Trade credit: Suppliers as debt collectors and insurance providers. Review of Financial Studies 20, 491-527.
- D'Mello, R., Toscano, F., 2020. Economic policy uncertainty and short-term financing: The case of trade credit. Journal of Corporate Finance 64, 101686.
- Deephouse, D.L., 1996. Does isomorphism legitimate? Academy of Management Journal 39, 1024-1039.
- Deephouse, D.L., 1999. To be different, or to be the same? It's a question (and theory) of strategic balance. Strategic Management Journal 20, 147-166.
- Denis, D., Sibilkov, V., 2010. Financial constraints, investment, and the value of cash holdings. Review of Financial Studies 23, 247-269.

- Dickinson, V. 2011. Cash flow patterns as a proxy for firm life cycle. The Accounting Review, 86(6), 1969-1994.
- DiMaggio, P.J., Powell, W.W., 1983. The iron cage revisited: Institutional isomorphism and collective rationality in organizational fields. American Sociological Review 48, 147-160.
- Dong, X., Chan, K.C., Cui, Y., Guan, J.X., 2021. Strategic deviance and cash holdings. Journal of Business Finance & Accounting 48, 742-782.
- Dowell, G., Swaminathan, A., 2006. Entry timing, exploration, and firm survival in the early US bicycle industry. Strategic Management Journal 27, 1159-1182.
- Dyckman, T.R., 2016. Significance testing: We can do better. Abacus 52(2), 319-342.
- Dyckman, T.R., Zeff, S.A., 2015. Accounting research: Past, present, and future. Abacus 51(4), 511-524.
- Elsilä, A. 2015. Trade credit risk management: the role of executive risk-taking incentives. Journal of Business Finance & Accounting, 42(9-10), 1188-1215.
- Fabbri, D., Menichini, A.M.C., 2010. Trade credit, collateral liquidation, and borrowing constraints. Journal of Financial Economics 96(3), 413-432.
- Fama, E.F., French, K.R., 1993. Common risk factors in the returns on stocks and bonds. Journal of Financial Economics 33(1), 3-56.
- Federal Reserve Board, 2022. Financial Accounts of the United States (First Quarter 2022).
- Ferrando, A., Mulier, K., 2013. Do firms use the trade credit channel to manage growth? Journal of Banking & Finance 37(8), 3035-3046.
- Finkelstein, S., Hambrick, D.C., 1990. Top-management-team tenure and organizational outcomes: The moderating role of managerial discretion. Administrative Science Quarterly, 484-503.
- Fiordelisi, F., Renneboog, L., Ricci, O., Lopes, S.S., 2019. Creative corporate culture and innovation. Journal of International Financial Markets, Institutions and Money 63, 101137.
- Fisman, R., Love, I., 2003. Trade credit, financial intermediary development, and industry growth. Journal of Finance 58(1), 353-374.
- Gao, M., Huang, J., 2020. Informing the market: The effect of modern information technologies on information production. Review of Financial Studies 33(4), 1367-1411.
- García-Teruel, P. J., Martínez-Solano, P. 2010. A dynamic perspective on the determinants of accounts payable. Review of Quantitative Finance and Accounting, 34, 439-457.
- Gujarati, D.N., 2004. Basic Econometrics. 4th Edition. New York: McGraw-Hill.
- Harvey, C.R., 2017. Presidential address: The scientific outlook in financial economics. Journal of Finance 72(4), 1399-1440.
- Hasan, M. M., Chen, X. C. 2023. Strategic deviation and idiosyncratic return volatility. Finance Research Letters, 54, 103731.
- Hasan, M., & Habib, A. 2023. Corporate Tax Avoidance and Trade Credit. Accounting and Business Research, forthcoming.

- Hasan, M.M., Alam, N., 2022. Asset redeployability and trade credit. International Review of Financial Analysis 80, 102024.
- Hasan, M.M., Cheung, A., Tunas, L., Kot, H.W., 2021. Firm life cycle and trade credit. Financial Review 56(4), 743-771.
- Hasan, M.M., Hossain, A.T., Hossain, T., 2022. CEO inside debt holdings and trade credit. Accounting & Finance 62(3), 3677-3709.
- Hoberg, G., Maksimovic, V. 2015. Redefining financial constraints: A text-based analysis. The Review of Financial Studies, 28(5), 1312-1352.
- Hoberg, G., Phillips, G. 2016. Text-based network industries and endogenous product differentiation. Journal of Political Economy, 124(5), 1423-1465.
- Holmstrom, B., 1982. Moral hazard in teams. Bell Journal of Economics 13, 324-340.
- Huang, H., Shi, X., Zhang, S., 2011. Counter-cyclical substitution between trade credit and bank credit. Journal of Banking & Finance 35, 1859-1878.
- Huyghebaert, N., 2006. On the determinants and dynamics of trade credit use: Empirical evidence from business start-ups. Journal of Business Finance & Accounting 33(1-2), 305-328.
- 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.
- Kerin, R.A., Varadarajan, P.R., Peterson, R.A., 1992. First-mover advantage: A synthesis, conceptual framework, and research propositions. Journal of Marketing 56, 33-52.
- Kim, J.H., Ahmed, K., Ji, P.I., 2018. Significance testing in accounting research: A critical evaluation based on evidence. Abacus 54(4), 524-546.
- Kothari, S.P., Leone, A.J., Wasley, C.E., 2005. Performance matched discretionary accrual measures. Journal of Accounting and Economics 39(1), 163-197.
- Kuhn, M., Johnson, K. 2013. Applied Predictive Modeling (Vol. 26, p. 13). New York: Springer.
- Larcker, D.F., Rusticus, T.O., 2010. On the use of instrumental variables in accounting research. Journal of Accounting and Economics 49(3), 186-205.
- Lev, B., Radhakrishnan, S., Zhang, W., 2009. Organization capital. Abacus 45(3), 275-298.
- Lieberman, M.B., Montgomery, D.B., 1988. First-mover advantages. Strategic Management Journal 9, 41-58.
- Litov, L.P., Moreton, P., Zenger, T.R., 2012. Corporate strategy, analyst coverage, and the uniqueness paradox. Management Science 58, 1797-1815.
- Ma, L., Ma, S., 2020. Trade credit use and bank loan access: An agency theory perspective. Accounting & Finance 60, 1835-1865.
- March, J.G., 1991. Exploration and exploitation in organizational learning. Organization Science 2, 71-87.
- Michael, M., Ali, M. J., Atawnah, N., Muniandy, B. 2022. Fiduciary or loyalty? Evidence from top management counsel and stock liquidity. Global Finance Journal, 52, 100709.

- Miles, R.E., Snow, C.C., 1978. Organizational Strategy, Structure, and Process. New York: McGraw-Hill.
- Miller, D., Chen, M.J., 1996. Nonconformity in competitive repertoires: A sociological view of markets. Social Forces 74, 1209-1234.
- Molina, C.A., Preve, L.A., 2012. An empirical analysis of the effect of financial distress on trade credit. Financial Management 41(1), 187-205.
- Ng, C.K., Smith, J.K., Smith, R.L., 1999. Evidence on the determinants of credit terms used in interfirm trade. Journal of Finance 54, 1109-1129.
- Ohlson, J.A., 2015. Accounting research and common sense. Abacus 51(4), 525-535.
- Ohlson, J.A., 2022. Researchers' data analysis choices: An excess of false positives? Review of Accounting Studies 27, 649-667.
- Oster, E., 2019. Unobservable selection and coefficient stability: Theory and evidence. Journal of Business & Economic Statistics 37, 187-204.
- Petersen, M.A., Rajan, R.G., 1997. Trade credit: Theories and evidence. Review of Financial Studies 10, 661-691.
- Pool, V.K., Stoffman, N., Yonker, S.E., 2015. The people in your neighborhood: Social interactions and mutual fund portfolios. Journal of Finance 70(6), 2679-2732.
- Porter, M.E., 1980. Competitive Strategy. New York: Free Press.
- Porter, M.E., 1996. What is strategy? Harvard Business Review 74, 61-78.
- Provaty, S.S., Amin, S., Hasan, M.M., 2022. Strategic deviation and debt maturity structure. Finance Research Letters 50, 103317.
- Schorfheide, F., Wolpin, K.I., 2012. On the use of holdout samples for model selection. American Economic Review 102(3), 477-481.
- Shang, C., 2020. Trade credit and stock liquidity. Journal of Corporate Finance 62, 101586.
- Smith, J.K., 1987. Trade credit and informational asymmetry. Journal of Finance 42, 863-872.
- Stock, J., Yogo, M., 2005. Asymptotic distributions of instrumental variables statistics with many instruments. Identification and inference for econometric models: Essays in honor of Thomas Rothenberg 6, 109-120.
- Tang, J., Crossan, M., Rowe, W.G., 2011. Dominant CEO, deviant strategy, and extreme performance: The moderating role of a powerful board. Journal of Management Studies 48, 1479-1503.
- Titman, S., Wessels, R., 1988. The determinants of capital structure choice. Journal of Finance 43, 1-19.
- Whited, T.M., Wu, G., 2006. Financial constraints risk. Review of Financial Studies 19(2), 531-559.
- Wu, W., Firth, M., Rui, O.M., 2014. Trust and the provision of trade credit. Journal of Banking & Finance 39, 146-159.
- Xu, H., Nguyen, D., Dao, M., 2021. Pilot CEOs and trade credit. European Journal of Finance 27, 486-509.

- Yang, S.A., Birge, J.R., 2018. Trade credit, risk sharing, and inventory financing portfolios. Management Science 64, 3667-3689.
- Ye, K., Guan, J.X., Zhang, B., 2021. Strategic deviation and stock return synchronicity. Journal of Accounting, Auditing & Finance 36, 172-194.
- Yuan, Y., Lu, L.Y., Tian, G., Yu, Y., 2020. Business strategy and corporate social responsibility. Journal of Business Ethics 162, 359-377.
- Zhang, Y., 2006. The presence of a separate COO/president and its impact on strategic change and CEO dismissal. Strategic Management Journal 27, 283-300.
- Zhang, Y., Lara, J.M.G., Tribó, J.A., 2020. Unpacking the black box of trade credit to socially responsible customers. Journal of Banking & Finance 119, 105908.
- Zhang, Y., Rajagopalan, N., 2010. Once an outsider, always an outsider? CEO origin, strategic change, and firm performance. Strategic Management Journal 31, 334-346.
- Zhang, Z., 2019. Bank interventions and trade credit: Evidence from debt covenant violations. Journal of Financial and Quantitative Analysis 54(5), 2179-2207.
- Zuckerman, E.W., 2000. Focusing the corporate product: Securities analysts and de-diversification. Administrative Science Quarterly 45, 591-619.

Appendix A

Variables	Definitions
AP/CGS	Proxy for trade credit, calculated as the accounts payable over the cost of
	goods sold.
AP/SALE	Proxy for trade credit, calculated as the accounts payable over sales.
STR_DEV	Strategic deviation that captures how a firm deviates from industry peers with respect to strategic resource allocation (see section 3.2.1 for a detailed discussion of the measurement).
FSIZE	Firm size, calculated as the natural logarithm of market capitalization.
MTB	Market-to-book ratio, calculated as the market value of assets scaled by the book value of assets.
ROA	Return on assets, measured as operating income before depreciation scaled by total assets.
LEV	Financial leverage, measured as total debt scaled by total assets.
RATING	Credit rating, an indicator variable that takes a value of one if a firm has long-term debt ratings (S&P) and zero otherwise.
CAP INT	Net property, plant, and equipment over total assets.
ΔSALE	Change in sales.
CASH	Cash holdings, measured as cash and equivalents scaled by total assets.
RE/TA FC WW	Life cycle measure, calculated as retained earnings scaled by total assets. Financing constraint measure of Whited and Wu (2006).
R&D	Research and development expenses over total assets. The missing R&D expense is replaced by 0.
Z-SCORE	Altman's (1968) Z-score. We use a dummy variable that equals one if the Z-score is higher than 1.81 and zero otherwise.
CFVOL	Cash flow volatility, measured as the rolling standard deviation of cash flow from operation scaled by total assets over the prior five years.
ILLIQ	Stock illiquidity measure of Amihud (2002).
DAC	Absolute value of discretionary accruals estimated from the cross-sectional
	regressions for each industry (2-digit SIC codes) and year using the modified
ODAOLIE	Jones model augmented with return on assets (Kothari et al., 2005).
OPAQUE	The moving sum of $ DAC $ over the prior three-year period.
INST	Proportion of shares held by institutional shareholders.
HOSTILE	Hostile takeover susceptibility index of Cain et al. (2017).

Table 1
Summary statistics.
This table reports summary statistics of the variables. Appendix A provides variable descriptions.

	Mean	Std. Dev.	P25	Median	p75
AP/CGS	0.175	0.235	0.071	0.115	0.182
AP/SALE	0.118	0.224	0.043	0.070	0.109
STR_DEV	2.658	1.870	1.507	2.162	3.130
FSIZE	5.790	2.327	4.038	5.709	7.400
MTB	1.742	1.567	0.825	1.226	2.010
ROA	0.057	0.207	0.030	0.104	0.161
LEV	0.202	0.184	0.021	0.173	0.327
RATING	0.252	0.434	0.000	0.000	1.000
CAP_INT	0.255	0.223	0.083	0.183	0.365
Δ SALE	0.158	0.504	-0.036	0.074	0.220
CASH	0.198	0.217	0.034	0.113	0.291
RE/TA	-0.427	1.816	-0.298	0.108	0.336
FC_WW	-0.204	0.194	-0.313	-0.232	-0.142
R&D	0.059	0.118	0.000	0.008	0.071
Z-SCORE	0.744	0.437	0.000	1.000	1.000
CFVOL	0.077	0.085	0.028	0.050	0.090
ILLIQ	0.539	1.027	0.002	0.033	0.509
DAC	0.064	0.069	0.018	0.041	0.082
OPAQUE					
INST	0.482	0.318	0.181	0.491	0.768
HOSTILE	0.139	0.088	0.073	0.114	0.179

Table 2

Pairwise correlations.

This table reports pairwise correlations between the key variables used in our analysis. * indicates significance at the 1% level. Appendix A provides variable descriptions.

Variables	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
(1) AP/CGS	1.00															_
(2) AP/SALE	0.40*	1.00														
(3) STR_DEV	0.08*	0.20*	1.00													
(4) FSIZE	0.00	-0.09*	-0.13*	1.00												
(5) MTB	0.11*	0.14*	0.00	0.22*	1.00											
(6) ROA	-0.17*	-0.47*	-0.19*	0.35*	-0.14*	1.00										
(7) LEV	-0.01*	-0.04*	0.10*	0.10*	-0.21*	0.11*	1.00									
(8) RATING	-0.02*	-0.07*	-0.03*	0.54*	-0.12*	0.21*	0.37*	1.00								
(9) CAP_INT	0.07*	-0.01	0.01*	0.09*	-0.17*	0.19*	0.31*	0.19*	1.00							
(10) ΔSALE	0.09*	0.05*	-0.02*	0.02*	0.21*	-0.04*	-0.01*	-0.06*	-0.03*	1.00						
(11) CASH	0.08*	0.23*	0.02*	-0.07*	0.39*	-0.41*	-0.43*	-0.27*	-0.40*	0.11*	1.00					
(12) RE/TA	-0.15*	-0.32*	-0.15*	0.29*	-0.22*	0.69*	0.10*	0.18*	0.16*	-0.07*	-0.36*	1.00				
(13) FC_WW	0.10*	0.26*	0.02*	-0.51*	0.16*	-0.44*	-0.17*	-0.37*	-0.16*	-0.01*	0.32*	-0.38*	1.00			
(14) R&D	0.11*	0.32*	0.01	-0.14*	0.33*	-0.62*	-0.24*	-0.19*	-0.27*	0.10*	0.52*	-0.56*	0.39*	1.00		
(15) Z-SCORE	-0.17*	-0.18*	-0.14*	0.20*	0.19*	0.38*	-0.32*	-0.04*	-0.15*	0.02*	0.01*	0.42*	-0.12*	-0.16*	1.00	
(16) CFVOL	0.14*	0.28*	0.12*	-0.34*	0.26*	-0.49*	-0.18*	-0.26*	-0.22*	0.16*	0.38*	-0.53*	0.38*	0.43*	-0.16*	1.00

Table 3 Main regression results.

This table presents the regression results for the relationship between strategic deviation and trade credit. Standard errors clustered at the firm level are reported in brackets, with 1%, 5%, and 10% levels of statistical significance are indicated by ***, **, and *, respectively. Appendix A provides variable descriptions.

(1) (2) (3) (4) (5) (6 Variables AP/COGS AP/SALE AP/COGS AP/SALE AP/COGS AP/S	5)
Variables AP/COGS AP/SALE AP/COGS AP/SALE AP/COGS AP/S	
	ALE
STR_DEV 0.013*** 0.020*** 0.015*** 0.019*** 0.015*** 0.02	
$[0.001] \qquad [0.001] \qquad [0.001] \qquad [0.001] \qquad [0.001]$	
FSIZE 0.011*** 0.009*** 0.011*** 0.011*** 0.009*** 0.01	0***
[0.002] $[0.001]$ $[0.001]$ $[0.002]$ $[0.002]$	_
MTB 0.003* 0.005*** 0.008*** 0.002 0.003** 0.00	4***
[0.001] $[0.001]$ $[0.002]$ $[0.001]$ $[0.001]$ $[0.00]$	001]
ROA -0.040*** -0.278*** -0.118*** -0.430*** -0.051*** -0.28	0***
[0.015] $[0.014]$ $[0.015]$ $[0.014]$ $[0.015]$ $[0.015]$	
LEV -0.036*** -0.039*** -0.057*** -0.011 -0.039*** -0.04	2***
$[0.009] \qquad [0.008] \qquad [0.010] \qquad [0.008] \qquad [0.009] \qquad [0.009]$	009]
RATING -0.007* -0.002 -0.012*** -0.006** -0.004 -0.0	001
[0.004] $[0.002]$ $[0.004]$ $[0.003]$ $[0.004]$ $[0.00]$	002]
CAP_INT -0.005 -0.000 0.064*** 0.072*** 0.011 0.0	12
[0.017] $[0.015]$ $[0.014]$ $[0.009]$ $[0.017]$ $[0.017]$	15]
$\Delta SALE$ 0.010*** -0.035*** 0.025*** 0.001 0.007** -0.03	6***
[0.003] $[0.003]$ $[0.003]$ $[0.003]$ $[0.003]$ $[0.003]$	03]
CASH -0.051*** 0.018 -0.030** 0.030*** -0.051*** 0.0	17
[0.012] $[0.011]$ $[0.012]$ $[0.011]$ $[0.011]$ $[0.01]$	11]
RE/TA -0.000 0.007*** 0.002 0.004** 0.001 0.00	7***
[0.002] $[0.002]$ $[0.002]$ $[0.002]$ $[0.002]$ $[0.002]$	002]
FC 0.024*** 0.022*** 0.062*** 0.074*** 0.012 0.03	8***
$[0.008] \qquad [0.010] \qquad [0.011] \qquad [0.008] \qquad [0.01]$	09]
R&D 0.008 -0.011 -0.078*** 0.040 0.004 -0.0)18
[0.029] $[0.034]$ $[0.024]$ $[0.026]$ $[0.028]$ $[0.02]$	34]
Z-SCORE -0.020*** 0.000 -0.061*** -0.000 -0.023*** -0.0	001
[0.003] $[0.003]$ $[0.005]$ $[0.004]$ $[0.003]$ $[0.003]$	003]
CFVOL 0.082*** 0.035 0.158*** 0.163*** 0.081*** 0.0	41
[0.027] $[0.031]$ $[0.027]$ $[0.029]$ $[0.027]$ $[0.027]$	32]
Constant 0.107*** 0.049*** 0.037** -0.048*** 0.108*** 0.02	8**
[0.013] $[0.011]$ $[0.017]$ $[0.016]$ $[0.012]$ $[0.01]$	12]
Observations 89,183 89,248 89,183 89,248 89,183 89,	248
Year FE Yes Yes Yes No N	o
Firm FE Yes Yes No No Yes Y	es
Industry FE No No Yes Yes No N	o
	es
Adj. R-squared 0.598 0.646 0.163 0.290 0.603 0.60	46

Table 4
Omitted variable bias tests.

This table reports the omitted variable bias test results for the relationship between strategic deviation and trade credit. Appendix A provides variable descriptions.

Panel A: ITCV

This table presents the results from the ITCV technique used to test omitted variable bias suggested by Larcker and Rusticus (2010).

	(1)	(2)	(3)	(4)
	Raw	Partial	Raw	Partial
Variables	AP/COGS	AP/COGS	AP/SALE	AP/SALE
FSIZE	-0.000	-0.006	0.012	-0.008
MTB	-0.001	0.003	-0.001	0.001
ROA	0.032	0.011	0.090	0.045
LEV	-0.001	-0.005	-0.005	0.001
RATING	0.001	0.000	0.002	0.000
CAP_INT	0.001	0.001	-0.000	0.001
ΔSALE	-0.002	-0.002	-0.001	-0.001
CASH	0.001	-0.000	0.005	0.001
RE/TA	0.023	-0.000	0.049	-0.001
FC	0.002	-0.006	0.005	-0.009
R&D	0.001	0.004	0.003	-0.001
Z-SCORE	0.024	0.001	0.025	0.000
CFVOL	0.017	0.003	0.035	0.003
ITCV	0.	190	0.2	205

Panel B: Tests for omitted variable bias using Oster (2019)

This table presents the results from the omitted variable bias test suggested by Oster (2019). Columns (1) and (2) report beta and R^2 from controlled and uncontrolled FFE regressions, respectively. Column (3) includes the identified set using the parameters. Following prior studies (e.g., Gao and Huang, 2020; Oster, 2019) we set $\delta = 1$ and $R_{max} = min(1.3\tilde{R},1)$.

	(1) C	ontrolled	(2) Ur	controlled	(3) Parameters: $\delta = 1$; $R_{MAX} = min(1.3\tilde{R}, 1)$
Variables	Beta	\mathbb{R}^2	Beta	\mathbb{R}^2	Identified Set
AP/COGS	0.013	0.598	0.010	0.007	0.017, 0.013
AP/SALE	0.020	0.646	0.023	0.039	0.017, 0.020

Table 5

Endogeneity tests.

This table presents the endogeneity test results for the relationship between strategic deviation and trade credit. Standard errors clustered at the firm level are reported in brackets, with 1%, 5%, and 10% levels of statistical significance are indicated by ***, ***, and *, respectively. Appendix A provides variable descriptions.

	(1)	(2)		(3)	(4)	(5)	(6)	(7)
	Change	analysis		Lagged r	egression	First stage	Second-stag	ge regression
Variables	AP/COGS	AP/SALE	Variables	AP/COGS _{t+1}	AP/SALE _{t+1}	STR_DEV	AP/COGS	AP/SALE
ΔSTR_DEV	0.012***	0.015***	STR_DEV	0.006***	0.009***		0.018***	0.030***
_	[0.001]	[0.001]	_	[0.001]	[0.001]		[0.005]	[0.005]
Δ FSIZE	0.027***	0.029***	FSIZE	0.000	-0.003**	-0.167***	0.013***	0.011***
	[0.002]	[0.002]		[0.002]	[0.001]	[0.017]	[0.002]	[0.002]
Δ MTB	-0.007***	-0.003**	MTB	0.006***	0.003**	0.088***	0.002	0.005***
	[0.001]	[0.001]		[0.001]	[0.001]	[0.010]	[0.002]	[0.002]
ΔROA	0.075***	-0.103***	ROA	-0.074***	-0.144***	-1.212***	-0.046**	-0.277***
	[0.017]	[0.014]		[0.015]	[0.013]	[0.107]	[0.020]	[0.019]
Δ LEV	-0.019	0.000	LEV	-0.005	-0.024***	1.267***	-0.032***	-0.047***
	[0.012]	[0.010]		[0.009]	[800.0]	[0.099]	[0.012]	[0.012]
ΔRATING	0.001	0.001	RATING	-0.006	0.001	-0.106***	-0.005	0.002
	[0.004]	[0.002]		[0.004]	[0.002]	[0.041]	[0.006]	[0.004]
ΔCAP_INT	0.007	-0.034	CAP_INT	-0.030*	-0.009	-0.736***	-0.000	0.005
	[0.028]	[0.023]		[0.018]	[0.016]	[0.155]	[0.021]	[0.019]
Δ SALE	-0.017***	-0.069***	Δ SALE	-0.003	-0.024***	-0.040**	0.013***	-0.033***
	[0.003]	[0.003]		[0.002]	[0.003]	[0.020]	[0.003]	[0.004]
ΔCASH	-0.084***	-0.051***	CASH	0.012	0.054***	0.586***	-0.054***	0.006
	[0.012]	[0.011]		[0.012]	[0.011]	[0.089]	[0.014]	[0.013]
ΔRE/TA	-0.002	0.011***	RE/TA	-0.003	0.001	-0.016	0.001	0.008***
	[0.003]	[0.003]		[0.002]	[0.003]	[0.013]	[0.002]	[0.002]
Δ FC	-0.012*	0.023***	FC	0.030***	-0.003	0.074	0.036***	0.020*
	[0.006]	[0.006]		[0.008]	[800.0]	[0.052]	[0.011]	[0.011]
ΔR&D	0.046	0.034	R&D	-0.015	-0.011	-0.494**	-0.005	-0.008
	[0.030]	[0.035]		[0.030]	[0.039]	[0.195]	[0.035]	[0.039]
ΔZ-SCORE	-0.022***	-0.011***	Z-SCORE	-0.001	0.011***	-0.092***	-0.015***	0.005
	[0.003]	[0.003]		[0.003]	[0.003]	[0.029]	[0.004]	[0.004]
Δ CFVOL	0.018	-0.066**	CFVOL	0.019	0.023	0.850***	0.093***	0.039
	[0.032]	[0.032]		[0.028]	[0.029]	[0.209]	[0.033]	[0.036]
			DISTANCE			-0.139*** [0.008]		

Constant	-0.007**	-0.007***	Constant	0.153***	0.101***	0.108***	0.108***	0.028**
	[0.003]	[0.002]		[0.013]	[0.011]	[0.012]	[0.012]	[0.012]
Observations	77,175	77,230	Observations	77,186	77,232	60,579	60,579	60,615
Year FE	Yes	Yes	Year FE	Yes	Yes	No	No	No
Firm FE	Yes	Yes	Firm FE	No	No	Yes	Yes	Yes
Adj. R ²	0.027	0.190	Adj. R ²	0.613	0.632	-	0.020	0.103
Underidentification test								
Kleibergen-Paap rk LM statistic						269.57		
p-value						0.000		
Weak identification test								
Kleibergen-Paap rk Wald F statistic						319.77		
Stock-Yogo critical values						16.38		

Table 6 Cross-sectional analyses.

This table presents the cross-sectional regression results for the relationship between strategic deviation and trade credit. Panel A examines how information asymmetry affects the strategic deviation – trade credit relationship, Panel B examines how financing constraints affects the strategic deviation – trade credit relationship, and Panel C explores how corporate governance affects the strategic deviation – trade credit relationship. Standard errors clustered at the firm level are reported in brackets, with 1%, 5%, and 10% levels of statistical significance are indicated by ***, **, and *, respectively. Appendix A provides variable descriptions.

Panel A: The role of information asymmetry

	(1)	(2)	(3)	(4)	(5)	(6)
Variables	AP/COGS	AP/COGS	AP/COGS	AP/SALE	AP/SALE	AP/SALE
STR_DEV	0.012***	0.008***	0.011***	0.018***	0.015***	0.017***
_	[0.001]	[0.001]	[0.001]	[0.001]	[0.002]	[0.001]
DAC	-0.005*			-0.010***		
	[0.003]			[0.003]		
STR_DEV* DAC	0.004***			0.004***		
	[0.001]			[0.001]		
ILLIQ		-0.017***			-0.021***	
		[0.005]			[0.005]	
STR_DEV*ILLIQ		0.009***			0.009***	
		[0.002]			[0.002]	
OPAQUE			-0.005			-0.012***
			[0.003]			[0.003]
STR_DEV*OPAQUE			0.003***			0.015***
			[0.001]			[0.001]
Constant	0.107***	0.111***	0.110***	0.051***	0.054***	0.057***
	[0.013]	[0.013]	[0.013]	[0.012]	[0.012]	[0.011]
Observations	83,821	86,057	89,183	83,875	86,112	89,248
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Firm FE	Yes	Yes	Yes	Yes	Yes	Yes
Adj. R-squared	0.605	0.601	0.598	0.644	0.650	0.647

Panel B: The role of financial constraints

	(1)	(2)	(3)	(4)	(5)	(6)
Variables	AP/COGS	AP/COGS	AP/COGS	AP/SALE	AP/SALE	AP/SALE
STR_DEV	0.016***	0.016***	0.018***	0.024***	0.022***	0.027***
	[0.001]	[0.001]	[0.001]	[0.002]	[0.002]	[0.002]
RATING	0.016***	-0.007*	-0.007*	0.037***	-0.002	-0.003
	[0.006]	[0.004]	[0.004]	[0.005]	[0.002]	[0.002]
STR_DEV*RATING	-0.009***			-0.016***		
	[0.002]			[0.002]		
Z-SCORE	-0.020***	-0.008	-0.020***	0.000	0.006	0.001
	[0.003]	[0.005]	[0.003]	[0.003]	[0.005]	[0.003]
STR_DEV* Z-SCORE		-0.004***			-0.002	
		[0.002]			[0.002]	
FC_WW_LOW			0.017***			0.046***
			[0.004]			[0.005]
STR_DEV_W*FC_WW_LOW			-0.010***			-0.017***
			[0.001]			[0.002]
Constant	0.102***	0.101***	0.093***	0.041***	0.046***	0.031***
	[0.013]	[0.013]	[0.013]	[0.011]	[0.012]	[0.012]
Observations	89,183	89,183	89,183	89,248	89,248	89,248
Other controls	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Firm FE	Yes	Yes	Yes	Yes	Yes	Yes
Adj. R-squared	0.599	0.598	0.599	0.648	0.647	0.649

Panel C: The role of corporate governance

	(1)	(2)	(3)	(4)	(5)	(6)
Variables	AP/COGS	AP/COGS	AP/COGS	AP/SALE	AP/SALE	AP/SALE
STR_DEV	0.012***	0.016***	0.016***	0.018***	0.028***	0.025***
	[0.002]	[0.002]	[0.001]	[0.002]	[0.002]	[0.001]
INST	0.011**			0.016***		
	[0.005]			[0.005]		
STR_DEV*INST	-0.006***			-0.008***		
_	[0.002]			[0.002]		
HOSTILE		0.007			0.021***	
		[0.006]			[0.007]	
STR_DEV*HOSTILE		-0.004**			-0.011***	
_		[0.002]			[0.003]	
ANALYST			0.013***			0.023***
			[0.005]			[0.005]
STR_DEV*ANALYST			-0.007***			-0.010***
_			[0.001]			[0.002]
Constant	0.106***	0.097***	0.010***	0.074***	0.021	0.038***
	[0.015]	[0.014]	[0.013]	[0.012]	[0.014]	[0.012]
Observations	64,811	63,187	89,183	64,844	63,226	89,248
Other controls	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Firm FE	Yes	Yes	Yes	Yes	Yes	Yes
Adj. R-squared	0.667	0.587	0.599	0.698	0.619	0.648

Table 7 Sensitivity analysis.

This table reports the sensitivity analysis for the relationship between strategic deviation and trade credit. Panel A reports the main regression results using alternative regression models. Panel B repeats the main regression utilizing alternative measures of trade credit, Panel C uses alternative sample periods, and Panel D presents the main regression results for holdout samples of 25%, 20% and 10%. Standard errors clustered at the firm level are reported in brackets, with 1%, 5%, and 10% levels of statistical significance are indicated by ***, **, and *, respectively. Appendix A provides variable descriptions.

Panel A: Alternative regression model

	(1)	(2)	(3)	(4)	(5)	(6)
	FMB	Newey-West	WLS	FMB	Newey-West	WLS
Variables	AP/COGS	AP/COGS	AP/COGS	AP/SALE	AP/SALE	AP/SALE
STR_DEV	0.016*** [0.001]	0.007*** [0.001]	0.016*** [0.001]	0.021*** [0.001]	0.016*** [0.001]	0.020*** [0.002]
Constant	0.024*	0.135***	0.052***	-0.063***	-0.002	-0.035**
	[0.012]	[0.005]	[0.018]	[0.011]	[0.005]	[0.016]
Observations	89,183	89,183	89,183	89,248	89,248	89,248
Other controls	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	No	Yes	Yes	No	Yes	Yes
Industry FE	Yes	Yes	Yes	Yes	Yes	Yes
Adj. R-squared	0.188	_	0.135	0.303	_	0.266

Panel B: Alternative measure of trade credit

	(1)	(2)	(3)	(4)	(5)	(6)
Variables	AP/TL	AP/TL	AP_TURN	AP_TURN	AP/PUR	AP/PUR
STR_DEV	0.002***	0.002***	4.921***	5.473***	0.009***	0.012***
	[0.000]	[0.001]	[0.397]	[0.433]	[0.001]	[0.001]
Constant	0.357***	0.322***	38.906***	13.624**	0.126***	0.053***
	[0.007]	[0.017]	[4.587]	[6.160]	[0.012]	[0.016]
Observations	89,248	89,248	89,183	89,183	89,103	89,103
Other controls	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Firm FE	Yes	No	Yes	No	Yes	No
Industry FE	No	Yes	No	Yes	No	Yes
Adj. R-squared	0.748	0.374	0.598	0.163	0.590	0.158

Panel C: Sample periods

	(1)	(2)	(3)	(4)	(5)
		Exclude			
		Recession			
	Exclude GFC	Periods	1992–2000	2001–2010	2011-2020
Variables	AP/COGS	AP/COGS	AP/COGS	AP/COGS	AP/COGS
STR DEV	0.014***	0.013***	0.014***	0.016***	0.010***
_	[0.001]	[0.001]	[0.002]	[0.002]	[0.002]
Constant	0.111***	0.109***	0.104***	0.066***	0.051*
	[0.013]	[0.013]	[0.017]	[0.025]	[0.029]
Observations	83,363	82,440	33,040	31,793	24,350
Other controls	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes
Firm FE	Yes	Yes	Yes	Yes	Yes
Adj. R-squared	0.603	0.605	0.661	0.642	0.709

Panel D: Main regression results with holdout samples

	(1)	(2)	(3)	(4)	(5)	(6)	
	Holdout sar	Holdout sample = 25%		Holdout sample = 20%		Holdout sample = 10%	
VARIABLES	AP/COGS	AP/SALE	AP/COGS	AP/SALE	AP/COGS	AP/SALE	
STR_DEV	0.011*** [0.002]	0.021*** [0.002]	0.010*** [0.002]	0.020*** [0.003]	0.013*** [0.003]	0.020*** [0.005]	
Constant	0.137***	0.055**	0.146*** [0.027]	0.047* [0.024]	0.160***	0.094** [0.042]	
Observations	22,273	22,288	17,723	17,729	8,945	8,953	
Other controls	Yes	Yes	Yes	Yes	Yes	Yes	
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	
Firm FE	Yes	Yes	Yes	Yes	Yes	Yes	
Adj. R-squared	0.63	0.69	0.65	0.69	0.66	0.76	

Table 8
Strategic deviation and band debt.

This table presents regression results for the relationship between strategic deviation and bank debt. Standard errors clustered at the firm level are reported in brackets, with 1%, 5%, and 10% levels of statistical significance are indicated by ***, **, and *, respectively. Appendix A provides variable descriptions.

	(2)	(2)	(3)	(4)
Variables	BD/TL	BD/TL	BD_LN	BD_LN
STR_DEV	-0.003***	-0.006***	-0.032***	-0.063***
	[0.001]	[0.001]	[0.008]	[0.009]
FSIZE	0.003	-0.020***	0.288***	0.248***
	[0.002]	[0.001]	[0.027]	[0.016]
MTB	-0.004***	0.003***	-0.124***	-0.174***
	[0.001]	[0.001]	[0.014]	[0.013]
ROA	-0.007	0.009	-0.365***	-0.609***
	[0.010]	[0.009]	[0.088]	[0.094]
LEV	0.479***	0.554***	4.531***	5.344***
	[0.016]	[0.014]	[0.148]	[0.135]
RATING	-0.041***	-0.086***	0.064	-0.080
	[0.008]	[0.006]	[0.082]	[0.069]
CAP_INT	-0.059***	-0.005	-0.614***	-0.027
	[0.022]	[0.015]	[0.201]	[0.142]
Δ SALE	0.001	0.007***	0.035**	0.055***
	[0.002]	[0.002]	[0.016]	[0.019]
CASH	-0.183***	-0.189***	-2.125***	-2.369***
	[0.011]	[0.009]	[0.109]	[0.097]
RE/TA	0.001	0.003***	0.003	0.011
	[0.001]	[0.001]	[0.010]	[0.010]
FC	0.002	0.017*	-0.267***	-0.423***
	[0.007]	[0.009]	[0.064]	[0.088]
R&D	0.019	0.036**	0.134	0.086
	[0.020]	[0.015]	[0.158]	[0.142]
Z-SCORE	0.017***	0.036***	-0.064*	0.047
	[0.004]	[0.004]	[0.039]	[0.046]
CFVOL	0.002	-0.011	0.078	0.448***
	[0.022]	[0.018]	[0.194]	[0.160]
Constant	0.055***	0.285***	-0.284*	0.419*
	[0.016]	[0.048]	[0.162]	[0.233]
Observations	46,579	46,579	46,579	46,579
Year FE	Yes	Yes	Yes	Yes
Firm FE	Yes	No	Yes	No
Industry FE	No	Yes	No	Yes
Adj. R-squared	0.614	0.339	0.668	0.456

Table 9
Strategic deviation, trade credit, and firm performance.

This table presents regression results for the effect of interaction between strategic deviation and trade credit on Tobin's Q. Standard errors clustered at the firm level are reported in brackets, with 1%, 5%, and 10% levels of statistical significance are indicated by ***, **, and *, respectively. Appendix A provides variable descriptions.

-	(1)	(2)	(3)	(4)
Variables	Tobin'Q _{t+1}	Tobin'Q _{t+1}	Tobin'Q _{t+1}	Tobin'Q _{t+1}
STR DEV	0.022***	0.045***	0.032***	0.050***
_	[0.006]	[0.007]	[0.006]	[0.006]
AP/COGS	-0.025	0.058		
	[0.081]	[0.067]		
STR_DEV*AP/COGS	0.033*	0.041**		
_	[0.018]	[0.017]		
AP/SALE	. ,	. ,	0.229**	-0.174*
			[0.106]	[0.093]
STR DEV*AP/SALE			-0.007	0.042***
_			[0.015]	[0.015]
FSIZE	0.292***	0.255***	0.294***	0.257***
	[0.013]	[0.007]	[0.013]	[0.007]
ROA	0.759***	0.819***	0.774***	0.771***
	[0.099]	[0.113]	[0.102]	[0.115]
LEV	-0.180***	0.155***	-0.180***	0.146**
	[0.064]	[0.060]	[0.064]	[0.059]
RATING	-0.172***	-0.452***	-0.172***	-0.455***
	[0.030]	[0.025]	[0.030]	[0.025]
CAP_INT	0.421***	0.252***	0.429***	0.261***
	[0.109]	[0.062]	[0.108]	[0.061]
Δ SALE	0.064***	0.184***	0.071***	0.192***
	[0.015]	[0.016]	[0.016]	[0.016]
CASH	0.873***	1.201***	0.869***	1.204***
	[0.079]	[0.072]	[0.078]	[0.073]
RE/TA	-0.155***	-0.161***	-0.153***	-0.161***
	[0.015]	[0.014]	[0.015]	[0.014]
FC	0.236***	0.972***	0.228***	0.983***
	[0.047]	[0.059]	[0.047]	[0.059]
R&D	2.587***	2.239***	2.597***	2.187***
	[0.220]	[0.168]	[0.220]	[0.169]
Z-SCORE	0.102***	0.496***	0.103***	0.487***
	[0.021]	[0.026]	[0.021]	[0.026]
CFVOL	0.668***	1.743***	0.683***	1.807***
	[0.196]	[0.172]	[0.196]	[0.174]
Constant	-0.111	-0.378**	-0.163*	-0.377**
	[0.086]	[0.170]	[0.088]	[0.170]
Observations	77,192	77,192	77,233	77,233
Year FE	Yes	Yes	Yes	Yes
Firm FE	Yes	No	Yes	No
Industry FE	No	Yes	No	Yes
Adj. R-squared	0.575	0.322	0.576	0.322