The impact of trade payables on cash holdings: The moderating role of financial development

Liem Nguyen¹,², Binh Ly¹,², Kim Mai¹,², Uyen Le¹,², Uyen Nguyen¹,², Van Do¹,²

ABSTRACT
Cash is one important source of financing for corporate operations, and studies have shown that firms keep cash for several important reasons. Nonetheless, it is costly to maintain it at high levels, because firms are likely to forgo productive investment opportunities that could enhance firm value. Meanwhile, trade payables are the funding provided by suppliers for a short period and usually be regarded as one of the most critical sources of external financing. In the sense that cash is expensive to retain inside a firm, there could be a substitution effect between cash and trade payables. The study of the linkage between the two factors should be highly relevant in the context of a developing market, where information asymmetry and inadequate institutional quality make it challenging for firms to have access to external financing provided by the financial market. Using a sample of listed non-financial firms in Vietnam, this study investigates the relationship between trade credit and cash holdings, with the consideration of the moderating effect of financial development. The empirical finding suggests that payable are negatively related to cash holdings levels, confirming the potential substitution effect between the two sources. Therefore, the finding suggests that firms make use of the funding provided by their trading partners to disgorge cash for other purposes. We further expect that financial development might help to alleviate the constraints implied by the substitution effect between the two factors. However, we find that financial development does not play a role of altering this negative relationship between the two factors. The findings remain unchanged to a number of robustness check strategies. Based on the findings, this study offers several implications to relevant stakeholders.

Key words: cash, trade payables, financial development, moderating role

INTRODUCTION
Trade credit is designed to promote the consumption of goods and services in order to increase profits for businesses. According to Gautam and Faruque's empirical research of the agricultural value chains in Bangladesh and India, trade credit provision occurs in about 30% of all transactions in these networks. In their study of financing patterns around the world, Beck, Demirgüç-Kunt and Maksimovic conducted a survey covering 48 countries and show that trade credit was used in an average of 19.7% of all investments. According to Cufat and Garcia-Appendini, in industrialized economies like France and the UK, trade credit accounts for more than 30% of all external financing. Petersen and Rajan and Fishman and Love suggest that trade credit acts as substitution for conventional institutional loans. Even though trade credit has two aspects, i.e. trade payables and receivables, we only focus on the payables in this research, since this component reflects the external financing aspect.

In addition to trade credit, cash holdings are a critical decision any firm has to make to operate appropriately. There are many different factors explaining corporate cash holdings, among which trade credit is a noticeable one. Even though firms can choose to defer payment to their suppliers, cash holdings for future payment is unavoidable. Late payments for payables would lead to several disadvantages, including the forgone cash discount, worsening creditworthiness, and higher future price as a form of punishment from suppliers. Therefore, there could be a positive relationship between trade payables and cash holdings. On the other hand, cash held inside firms has low productivity; as a result, managers would hold less cash if they could receive trade financing from suppliers. So, the real impact of payables on cash holdings is quite elusive. Additionally, trade credit (payables) should be a close substitute for cash. The investigation of the link between trade payables and cash holdings is important, especially for developing countries. In these countries, the issues of information asymmetry and access to external official financing are quite problematic for firms. Therefore, firms could be more reliant on internal sources such as cash holdings or from suppliers (trade payables).

What is also important in developing countries is the effectiveness of financial system in spurring economic growth. With stronger financial development, firms can actually gain more access to finance at a lower cost. This factor could moderate the relationship between trade payables and cash for some reasons. When firms can access external financing at a lower opportunity cost, the positive association between payables and cash (if any) should be weaker. Meanwhile, the negative association (again, if any) that results from the substitution effect can also change since financial development may alter the significance of each of the two factors as the financing source for firms’ operations (see, for example, Kling et al. for payables-loans linkage. Accordingly, the examination of the role of financial development is important. In the context of Vietnam, previous studies (like Tran et al.) tend to focus on the role of financial development on firms’ efficiency, hence economic growth.

Across the globe, there are often studies that highlight the beneficial role of financial development, see for example, King and Levine, Levine et al., Al-hassan et al., Rajan and Zingales, praise the merits of financial development in overcoming problems of moral hazard and adverse selection, which explains why firm’s external financing cost is high. In examining the moderating role of financial development on the link between the two factors, we can uncover the additional mechanisms through which financial development can affect the economy, especially in developing ones. This is important since literature still has not reach consensus on how the development of financial system can affect the economy.

To summarize, it is critical to examine the relationship between trade credit (account payables) and cash holdings in developing countries. A few studies on cash holdings have been conducted in the context of Vietnam, see for example, Nguyen et al., but little has been investigated in terms of the relationship between trade credit and cash holdings or how this might be affected by financial development. Up to 84% of enterprises across the nation has a need for trade credit so as to support their production and business operations. The “buying and selling on credit” of production materials is extremely important because businesses are never in a position where they have enough capital to rotate.

After the introduction, we discuss the theoretical and empirical studies in Section 2. Section 3 covers methodology-related content, which discusses the empirical models, hypotheses and description of research sample. Section 4 provides the discussion of the empirical results, and Section 5 concludes the paper and provides implications for relevant stakeholders.
payment, firms still need to reserve some cash to avoid the disadvantages associated with late payment. As a result, payables are expected to be positively related to cash holdings. Using a sample of firms in China, Wu et al.\(^{7}\) show that the amount of cash holdings is positively related to account payables. Therefore, our first empirical hypothesis is as follows:

**Hypothesis H1:** Payables are positively associated with cash holdings.

On the other hand, cash held inside firms should have lower productivity and rate of return due to its liquidity premium. Cunat\(^{20}\) states that, despite trade credit having higher interest rates than bank credit, accepting trade payables aids businesses in avoiding transient liquidity shocks. Furthermore, Kling et al.\(^{7}\) note that, firms that experience liquidity shocks tend to depend on cash or trade credit, rather than bank loans. These points could effectively point to the close substitute for cash of trade credit\(^{7}\). As a result, managers would hold less cash if they could receive trade financing from suppliers.

The investigation of the link between trade payables and cash holdings is important, especially for developing countries. In these countries, the issues of information asymmetry and access to external official financing are quite problematic for firms. Cash should be valuable to firms, since it has the lowest cost in the environment plagued with high information asymmetry and weak institutions. In addition, the long-term relationship between suppliers and buyers or the specific investment relationship could make the issue of information asymmetry less relevant. Therefore, to sum up, we can also expect a negative association between cash holdings and trade payables.

Our second empirical hypothesis is as follows:

**Hypothesis H2:** Payables are negatively associated with cash holdings.

**Financial development and the relationship between trade credit and cash holding**

The optimal amount of cash held to honor payment for trade credit reflects the tradeoff between the opportunity cost of holding cash within firms (lower rate of return on cash) and the cost that could arise due to cash shortage for paying the trade credit. A stronger financial system could moderate the relationship between trade payables and cash for some reasons. When firms can access external financing at a lower opportunity cost, the positive association between payables and cash (if any) should become weaker. Across the globe, there are often studies that highlight the beneficial role of financial development, see for example, King and Levine\(^{9}\), Levine et al.\(^{10}\), Al-hassan et al.\(^{11}\), Rajan and Zingales\(^{12}\) praise the benefits of financial development in overcoming problems of moral hazard and adverse selection. These are the culprits for the high external financing cost. If firms are able to obtain external funds more efficiently thanks to a higher level of financial development, we can expect that firms should rely less on holding cash to pay payables. Empirically, Wu et al.\(^{6}\) show that, firms in regions with more financial deepening tend to hold less cash to pay payables.

On the other hand, financial development can also affect the potential negative association between the two sources. Kling et al.\(^{7}\) suggest that, firms that experience liquidity shocks tend to depend on cash or trade credit, rather than bank loans. Therefore, perhaps, financial development (which is associated with higher loan volume) might not have a significant impact on the relationship between cash and trade credit.

A more developed financial system could make it cheaper to use bank loans, so firms can have additional dependable sources of financing, rather than only cash or trade credit. However, a concrete prediction of the moderating role of financial development on the link between trade credit and cash is rather complex, because this could have multiple possible scenarios. Therefore, given the highly complex nature of the moderating role of financial development, we establish the following hypothesis:

**Hypothesis H3:** There is a moderating role of financial development in the relationship between payables and cash holdings.

**DATA COLLECTION AND METHODOLOGY**

**Research sample**

The study uses a research sample of 668 observations covering 357 firms in the non-financial sector listed on the Vietnamese stock market. Financial data are taken from annual reports collected from Eikon Refinitive source. The data for financial development within Vietnam has to be collected at provincial level. In line with Fafchamps and Schundeln (2013) and Tran et al.\(^{8}\), we use the number of credit suppliers per 1000 persons in each province (FD1). In addition, we use another measure which is the number of credit provider per square kilometer (FD2). Since such data are not available for the other years, we utilize a dataset made available by Tran et al.\(^{8}\).
Research model

In line with Wu \(^6\), the study proposes a regression model to examine the hypothesis H1 and H2 as follows:

\[
\text{Cash}_{it} = \alpha_0 + \alpha_1 \text{Payable}_{it} + \alpha_2 \text{Size}_{it} + \alpha_3 \text{CAPEX}_{it} + \\
\alpha_4 \text{Lev}_{it} + \alpha_5 \text{CFOA}_{it} + \epsilon_{it}
\]

Where: CASH is measured by the ratio of cash to total assets, which is the dependent variable. The explanatory variable of interest is Payable, which is the ratio of Account Payables to total assets. The group of control variables includes Size (firm size, calculated as the natural logarithm of total assets), Lev (corporate leverage), CFOA represents cash flow (calculated as the ratio of cash flow from operating activities to total assets), CAPEX represents the level of investments made (calculated as the ratio of capital expenditures to total assets).

In addition to the baseline model, we also propose the following model to examine the hypothesis H3 by adding the interaction term between Payable and FD (financial development), consistent with Wu \(^6\):

\[
\text{Cash}_{it} = \alpha_0 + \alpha_1 \text{Payable}_{it} + \alpha_2 \text{FD}_{it} + \\
\alpha_3 \text{Payable} \ast \text{FD}_{it} + \alpha_4 \text{Size}_{it} + \alpha_5 \text{CAPEX}_{it} + \\
\alpha_6 \text{Lev}_{it} + \alpha_7 \text{CFOA}_{it} + \epsilon_{it}
\]

Where: FD represents financial development. In line with Fafchamps and Schundeln \(^21\) and Tran et al. \(^8\), we use the number of credit suppliers per 1,000 persons in the province (FD1). In addition, we use another measure which is the number of credit provider per square kilometer (FD2). The other variables are similar to the above model.

Estimation strategy

Since the data employed are of panel type, we suggest the use of panel data models to estimate the above equations. To be more specific, we use the fixed-effects model (FEM) and the random-effects model (REM). These methods account for the heteroskedasticity usually found in panel data and also help retrieve more insight from panel data thanks to the control for individual effects in both methods. They are generally more efficient than OLS when it comes to panel data. The efficiency of the random effects model (REM) and the fixed-effect model (FEM) depends on whether the assumptions for the models are appropriate. In order to determine which model is more appropriate, we perform Hausman test. The p-values are above 5 per cent, indicating that random effects model is more suitable. Nonetheless, the estimation is conducted using both FEM and REM, which yield similar results, implying the robustness of the findings.

**Empirical Results and Discussions**

Descriptive statistics

Table 1 presents descriptive statistics about the variables in the model. From the statistical results, the average value of cash holdings is 0.152, meaning that on average cash and cash equivalents are 15 per cent of the total assets. The average value of payable assets is 0.111, the average size of the enterprise is 26,867. The average capital expenditure is 0.057, while the average leverage is 0.211, meaning that total debt account for approximately one fifth of total assets. CFOA has a mean value of 0.06, indicating that operating cash flow is about 6 per cent of the total assets.

Correlation matrix analysis

The correlation matrix is used to offer some initial investigation about the relationship between variables (Table 2). The correlation coefficient between Cash and payable is negative, suggesting that cash is inversely related to trade credit. In general, most correlation coefficients between variables are quite low. The highest coefficient is 0.426. Furthermore, to determine the severity level of multicollinearity, this study calculates the Variance Inflation Factor (VIF). The results of the VIF test show that all coefficients are less than 10, and this implies that multicollinearity is not a severe issue in this research \(^22\). Nonetheless, the correlation coefficients only provide some initial investigation and do not control for the existence of other control variables. Therefore, we continue with the multiple regression to determine the association between payables and cash holdings in a more robust manner.

Regression results

Payables and cash holdings

The estimated coefficient in the random effect model shows that the payable’s coefficient is negative and statistically significant (Table 3). This result is in line...
with the hypothesis H2, emphasizing the substitution effect of trade payables on cash holdings. Cash in fact has low productivity and rate of return; as a result, firms should store less cash when they have already obtained financing from suppliers. At least, trade credit can help to provide liquidity, even more efficient than bank loans. Unfortunately, this result might also indicate the severe issue of information asymmetry in Vietnam. With high level of information asymmetry and weak institutions and inadequate regulations to protect fund providers, it is more costly to obtain official external financing, as opposed to cash holdings and suppliers’ financing.

This result is not consistent with that of Wu et al.6. Wu et al.6 find that payables are positively correlated with cash holdings. The authors claim that cash is prepared to pay payables since late payments could result in several disadvantages, for example deteriorated creditworthiness, or increased future prices as a penalty from suppliers. Therefore, the context in Vietnam might be that firms are able to manage working capital more effectively, thus not requiring cash stock- ing to pay payables. Another possible explanation is that the penalties from suppliers are not as severe as the other economies, and this might explain why firms would not bother to save more cash when there is a higher level of payables.

In addition to the random-effects model, we also perform fixed-effects model which yields similar results in terms of the sign of the coefficients and the significance (Table 3). This evidence proves the robustness of the results.

**Payables and cash holdings with the moderating role of financial development**

The results of Table 4 help to verify the moderating role of financial development on the link between cash holding and trade credit (to test the hypothesis H3). It might be expected that as financial system is more developed, firms tend to keep less cash because of the higher availability of external funding sources and better access to external capital from the banking system. Retaining much cash might result in increased opportunity cost, reducing firm performance.13 There are numerous studies that shows how crucial the financial system is to economic growth. Enhanced financial intermediaries’ performance helps provide the manufacturing sector with improved financial services, making it easier for businesses to acquire financing and at a lower cost. Contrary to the above expectation, the interaction term between Payable and FD is not statistically significant. Kling et al.7 suggest that, firms that experience liquidity shocks tend to depend on cash or trade

### Table 1: Descriptive statistics

<table>
<thead>
<tr>
<th>Variable</th>
<th>Obs</th>
<th>Mean</th>
<th>Std. Dev.</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cash</td>
<td>668</td>
<td>0.152</td>
<td>0.148</td>
<td>0.001</td>
<td>0.916</td>
</tr>
<tr>
<td>Payable</td>
<td>664</td>
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<td>0.116</td>
<td>0</td>
<td>0.8</td>
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<tr>
<td>Size</td>
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<td>26.867</td>
<td>1.539</td>
<td>20.985</td>
<td>31.961</td>
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<tr>
<td>Capex</td>
<td>644</td>
<td>0.057</td>
<td>0.088</td>
<td>0</td>
<td>0.607</td>
</tr>
<tr>
<td>Lev</td>
<td>668</td>
<td>0.211</td>
<td>0.186</td>
<td>0</td>
<td>0.827</td>
</tr>
<tr>
<td>Cfoa</td>
<td>663</td>
<td>0.06</td>
<td>0.144</td>
<td>-0.652</td>
<td>0.8</td>
</tr>
</tbody>
</table>

Source: author’s calculation from dataset

### Table 2: Correlation Matrix

<table>
<thead>
<tr>
<th></th>
<th>Cash</th>
<th>Size</th>
<th>Capex</th>
<th>Lev</th>
<th>Cfoa</th>
<th>Payable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cash</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Size</td>
<td>-0.087</td>
<td>1.000</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Capex</td>
<td>-0.045</td>
<td>-0.017</td>
<td>1.000</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Lev</td>
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<td>0.426</td>
<td>0.149</td>
<td>1.000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cfoa</td>
<td>0.222</td>
<td>-0.035</td>
<td>0.130</td>
<td>-0.173</td>
<td>1.000</td>
<td></td>
</tr>
<tr>
<td>Payable</td>
<td>-0.043</td>
<td>-0.023</td>
<td>-0.133</td>
<td>-0.096</td>
<td>-0.053</td>
<td>1.000</td>
</tr>
</tbody>
</table>

Source: author’s calculation from dataset
Table 3: The impact of payable on cash holdings

<table>
<thead>
<tr>
<th></th>
<th>FEM</th>
<th>REM</th>
</tr>
</thead>
<tbody>
<tr>
<td>payable</td>
<td>-0.231</td>
<td>0.101</td>
</tr>
<tr>
<td>size</td>
<td>0.000</td>
<td>0.014</td>
</tr>
<tr>
<td>capex</td>
<td>-0.027</td>
<td>0.071</td>
</tr>
<tr>
<td>lev</td>
<td>-0.208</td>
<td>0.097</td>
</tr>
<tr>
<td>cfoa</td>
<td>0.065</td>
<td>0.065</td>
</tr>
<tr>
<td>constant</td>
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<td>0.380</td>
</tr>
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Note: the standard errors are robust to autocorrelation and heteroskedasticity. Source: author’s calculation from research dataset.

CONCLUSION AND IMPLICATIONS

This study seeks to examine the impact of trade payables on cash holdings. This research is important because these are the two important sources of financing for firms in Vietnam, a country that is plagued with informational asymmetry, laxed regulations to protect fund providers and weak institutions. Using a sample of non-financial firms listed in Vietnam, we find that trade payables are negatively related to cash holdings, in line with the hypothesis about the substitution effect. Cash is in fact having low productivity and rate of return; as a result, firms should store less cash when they have already obtained financing from suppliers.

We further investigate the moderating role of financial development on the link above. Interestingly, we find no significant moderating effect of financial development. Therefore, we find evidence not in line with Wu et al. for a sample of firms in China. In Wu et al., trade payables are positively associated with cash holdings, and financial development allows firms not to rely on cash to pay payables.

Therefore, perhaps in Vietnam cash and trade credit still have a more direct substitution effect, and in this substitution relationship, bank loans do not exert adequate influence to alter it. In other words, a more developed financial system might still contribute to economic growth by making it cheaper and more convenient to use bank loans, this is not sufficient to surpass the convenience of using cash or trade financing from suppliers. Our result differs from that of Wu et al., and implies that financial development should do more in order to fully support the economy, at least in Vietnam. In Table 4, we also perform a test of robustness by replacing FD1 with FD2, and the results are similar, ensuring the robustness of the findings. However, this insignificant relationship might be the result of limited data availability on financial development. If we have more variability in the data, significant linkages might be documented. In Table 5, we run fixed-effects model to re-estimate the model. The results basically remain unchanged, confirming the robustness of the findings.

ACKNOWLEDGEMENT

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ABBREVIATIONS

FD: Financial development
FEM: Fixed effects model
OLS: Ordinary Least Squares
REM: Random effects model
VIF: Variance Inflation Factor
Table 4: Financial development on cash holdings and trade payable - REM

<table>
<thead>
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<tbody>
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<td>cash</td>
<td>-0.265</td>
<td>0.117</td>
<td>0.023</td>
<td>-0.216</td>
<td>0.094</td>
<td>0.021</td>
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<tr>
<td>fd</td>
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<td>0.244</td>
<td>-0.064</td>
<td>0.065</td>
<td>0.325</td>
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<tr>
<td>payable</td>
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<td>1.517</td>
<td>0.138</td>
<td>0.553</td>
<td>0.383</td>
<td>0.148</td>
</tr>
<tr>
<td>size</td>
<td>0.006</td>
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<td>0.200</td>
<td>0.006</td>
<td>0.005</td>
<td>0.202</td>
</tr>
<tr>
<td>capex</td>
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<td>0.728</td>
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<td>0.048</td>
<td>0.774</td>
</tr>
<tr>
<td>lev</td>
<td>-0.289</td>
<td>0.041</td>
<td>0.000</td>
<td>-0.288</td>
<td>0.040</td>
<td>0.000</td>
</tr>
<tr>
<td>cfoa</td>
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<td>0.047</td>
<td>0.007</td>
<td>0.128</td>
<td>0.047</td>
<td>0.006</td>
</tr>
<tr>
<td>constant</td>
<td>0.072</td>
<td>0.132</td>
<td>0.584</td>
<td>0.068</td>
<td>0.129</td>
<td>0.600</td>
</tr>
</tbody>
</table>

Note: the standard errors are robust to autocorrelation and heteroskedasticity. Source: author's calculation from research dataset.

Table 5: Financial development on cash holdings and trade payable - FEM

<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td>cash</td>
<td>-0.333</td>
<td>0.157</td>
<td>0.035</td>
<td>-0.273</td>
<td>0.133</td>
<td>0.041</td>
</tr>
<tr>
<td>fd</td>
<td>-1.416</td>
<td>0.524</td>
<td>0.007</td>
<td>-0.292</td>
<td>0.125</td>
<td>0.020</td>
</tr>
<tr>
<td>payable*fd</td>
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<td>2.253</td>
<td>0.539</td>
<td>0.196</td>
<td>0.585</td>
<td>0.738</td>
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<tr>
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<td>0.026</td>
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<td>0.020</td>
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<td>0.167</td>
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<tr>
<td>capex</td>
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<td>0.072</td>
<td>0.392</td>
<td>-0.045</td>
<td>0.071</td>
<td>0.525</td>
</tr>
<tr>
<td>lev</td>
<td>-0.240</td>
<td>0.097</td>
<td>0.014</td>
<td>-0.229</td>
<td>0.097</td>
<td>0.019</td>
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<tr>
<td>cfoa</td>
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<td>0.059</td>
<td>0.518</td>
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<td>constant</td>
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<td>0.359</td>
<td>0.285</td>
<td>-0.255</td>
<td>0.371</td>
<td>0.491</td>
</tr>
</tbody>
</table>

Note: the standard errors are robust to autocorrelation and heteroskedasticity. Source: author's calculation from research dataset.

CONFLICT OF INTEREST STATEMENT

The authors declare that they have no conflicts of interest.

AUTHOR CONTRIBUTIONS

Author 1 (Liem Nguyen) forms the idea of the paper, collect data, run regressions; Author 2 (Binh Ly) writes the introduction; Authors 3 (Kim Mai), 4 (Uyen Le) write literature review; Authors 5 (Uyen Nguyen) and 6 (Van Do) interpret the results and write the conclusion part.

REFERENCES


Tác động của khoản phải trả người bán đến nắm giữ tiền: Vai trò điều tiết của phát triển tài chính

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Tóm tắt
Tiền mặt là một nguồn tài chính quan trọng cho các hoạt động của công ty, và các nghiên cứu đã chỉ ra rằng các công ty giữ tiền mặt vì một số lý do quan trọng. Tuy nhiên, việc duy trì tiền mặt ở mức cao rất tốn kém, bởi vì các khoản phải trả của các đối tác thường được coi là một trong những nguồn tài trợ bền vững nhất của công ty. Do tiền mặt rất tốn kém để giữ lại bên trong công ty, có thể có tác động thay thế giữa tiền mặt và các khoản phải trả thương mại. Việc nghiên cứu về mối liên hệ giữa hai yếu tố này rất phù hợp trong bối cảnh phát triển kinh tế - kỹ thuật đang diễn ra, nơi thông tin bất đối xứng và chất lượng thẻ khó khăn đối với các công ty gặp khó khăn trong việc tiếp cận nguồn vốn bên ngoài do thị trường tài chính cung cấp. Sử dụng mẫu gồm các công ty tài sản để tài chính đã niêm yết tại Việt Nam, nghiên cứu này đưa ra mối quan hệ giữa tiền mặt và nắm giữ tiền mặt với việc xem xét tác động điều tiết của phát triển tài chính. Phát hiện thực nghiệm cho thấy rằng các khoản phải trả có quan hệ tiêu cực với mức nắm giữ tiền mặt, xác nhận hiệu ứng thay thế tiền mặt giữa hai nguồn. Do đó, phát hiện này gợi ý rằng các công ty sử dụng nguồn vốn do các đối tác thương mại của họ để cung cấp cho chi tiêu một cách cực kỳ vắng và có tác động điều tiết của phát triển tài chính có thể giúp giảm bớt những hạn chế do hiệu ứng thay thế giữa hai yếu tố gây ra. Tuy nhiên, tác giả cho thấy phát triển tài chính không đóng vai trò làm thay đổi mối quan hệ tiêu cực giữa hai nguồn vốn. Các kết quả nghiên cứu văn không thể giải thích sự thay đổi hệ thống một số bối cảnh trong việc đầu tư. Dựa trên những kết quả, nghiên cứu này đưa ra một số hàm ý cho các chính sách quản lý.

Từ khóa: tiền mặt, khoản phải trả người bán, phát triển tài chính, vai trò điều tiết