Does economic policy uncertainty shorten the term structure of loan —Evidence from China

Abstract: Since the financial crisis in 2008, international economic policies have fluctuated violently, which has brought high liquidity risks to enterprises. This paper takes China's A-share listed companies from 2011 to 2021 as the research object, constructs an indicator of the perception of economic policy uncertainty (EPU) at the firm level based on the text analysis method, and analyzes the impact of the perception of EPU (PEPU) on corporate loan term structure from a micro perspective. The empirical results show that PEPU shortens the loan term structure of the enterprise. Mechanism analysis shows that PEPU will shorten the term structure of loan by increasing corporate financing costs and reducing corporate ESG performance. Moreover, in state-owned enterprises, enterprises with better internal control and enterprises with large performance fluctuations, the phenomenon that the term structure of loan becomes short is more obvious. In addition, reducing the financing constraints of enterprises and improving the level of digital finance will alleviate the problem of the term structure of loan becoming short. Further analysis shows that there is a phenomenon of "short-term borrowing for long-term use" in enterprises, and short-term bank loans is used to make up for the lack of long-term bond financing and fixed asset investment. The research conclusions of this paper have important practical significance for enterprises to mitigate liquidity risk under the background of EPU, and provide policy inspiration for the government to better help enterprises operate smoothly.

Keywords: the perception of EPU; term structure of loan; liquidity risk; text-based analysis

1. Introduction

Thomas Cook is a British travel company with a long history, founded in the 19th century, providing services such as air transportation, hotel reservations and holiday packages. However, Thomas Cook Group declared bankruptcy in 2019, making it one of the biggest travel company failures of the year. Prior to this, the

company faced multiple challenges, including mounting debt, a highly competitive travel market and uncertainties such as Brexit. On the one hand , due to fierce market competition, the company's sales revenue has declined, while the high debt burden has continued to increase. Thomas Cook, on the other hand , required significant cash reserves to pay suppliers and hotels ahead of the peak tourist season, but they were unable to secure sufficient financing or improve their cash flow position. Among them, poor cash flow management is one of the main reasons for Thomas Cook's bankruptcy. Cash flow is essential to enterprises, and maintaining good liquidity plays a key role in the long-term stable operation of enterprises. Abundant cash flow will alleviate the financial pressure of enterprises, and then optimize the investment behaviors, financing behaviors and production strategies of enterprises (Wensheng Kang et al., 2014; Liu et al., 2020; Xu, 2020; Kong et al., 2022; Liu and Wang, 2022). However, retaining too much cash flow will lead to an increase in the opportunity cost of the company, causing the company to miss out on excellent investment projects (Kim and Bettis, 2014). On the contrary, enterprises that are short of cash flow will face greater pressure on repayment and potential liquidity crisis. Once the capital chain is broken, the enterprise will fall into bankruptcy (Fedorova et al., 2022). In particular, when EPU is high, it will seriously affect the company's expectations for the future and bring great financial risks to the company. Therefore, maintaining a reasonable operating capital is the primary task of the company's financial management.

In China, there are two main sources of cash for enterprises, namely debt financing and equity financing. The former includes bond issuance, bank loans, commercial credit, notes payable and accounts payable, etc. The latter mainly involves equity financing. According to the priority financing theory, the financing order of enterprises should be internal financing, debt financing, and equity financing. However, due to the particularity of the Chinese system and the immaturity of the capital market, this theory is not applicable in China[1]. In comparison to industrialized

[1] The distribution of financing sources of Chinese enterprises is as follows: bank credit 59%, bond financing 10%, equity financing 10%, and trust asset management 21%.

nations, China's debt financing is more expensive and smaller in scale because of rigorous regulations and a lengthy approval process (Hayat et al., 2018). And because commercial lending for enterprises is uncommon in China, bank loan is a crucial way for most Chinese enterprises to retain capital liquidity in addition to being a financing option with a quick adjustment time (Barnea et al., 1980). Bank loans are also significantly impacted by economic policies, and EPU will increase their risks. Therefore, it is crucial to research how enterprises retain liquidity through bank loans in light of shifting macroeconomic conditions.

Commercial banks, which are on the supply side of the funding equation, and enterprises, which are on the demand side, are the two main influences on bank loans. The final loan scale of the enterprise is the equilibrium result of the game between the borrower and the lender, and EPU will affect the result of the game. From the perspective of banks, when EPU rises, on the one hand, due to the existence of information asymmetry, the bank's bad debt rate will increase, resulting in an increase in the bank's operating risk and a reduction in the bank's credit scale (Bordo et al., 2016). On the other hand, according to the code of conduct of sequential rationality and Bayesian theorem, banks will respond to corporate adjustments in lending strategies. The increase in information asymmetry will prompt banks to demand additional risk premiums (Kaviani et al., 2020), which can be more flexibly transferred to enterprises through short-term loans, but difficult to pass on to enterprises through long-term loans, because banks have longer contractual terms and higher moral hazard on the principal when issuing long-term loans. Therefore, when macroeconomic policy uncertainty rises, short-term credit of banks may rise (Bordo et al, 2016; Jiang et al., 2022). From the perspective of enterprises, on the one hand, a growth in PEPU will raise the operating risk and financial risk of enterprises, so enterprises will pay more attention to the bank loans and use of funds, which may lead to the reduction of the volume of debt and bank loans of enterprises (Guizani et al . al ., 2023; Athari and Bahreini, 2023). On the other hand, EPU is both a risk and an opportunity for enterprises. Enterprises can take advantage of the uncertain situation

Data source: www.pbc.gov.cn (People's Bank of China website)

to increase short-term bank loans, so as to increase investment in research and development expenditures, expand business scale, and optimize resources to obtain competitive advantage (Ouyang et al., 2020; Cui et al., 2023). However, the surge of short-term borrowings of enterprises will bring higher financial risks to enterprises, which will increase the pressure on repayment of enterprises, and once the decision fails, they will encounter bankruptcy difficulties. Therefore, it is of great significance to study the internal relationship between PEPU and the loan term structure and how to avoid liquidity risk.

The contributions of this paper are mainly reflected in the following three aspects : (1) Compared with the existing literature on the measurement of EPU, this paper adopts the text-based method to construct the firm-level PEPU and deeply analyzes the economic impact of EPU at the micro level. (2) At present, there is little literature that studies the impact of EPU on the term structure of corporate loan. This paper reveals the relationship and mechanism between PEPU and the term structure of corporate loan, which enriches the research on the term structure of corporate loan. (3) This paper also examines the influence of internal and external factors of enterprises on the relationship between PEPU and the term structure of corporate loan, which provides a theoretical basis for giving full play to the governance role of the government macroeconomic regulation and internal control of enterprises. At the same time, it provides evidence from China for the phenomenon of "short-term borrowing for long-term use" in enterprises under the background of EPU.

The rest of this article has five chapters. In the second section, we introduce the relevant literature review and hypothesis. The third section gives the method and the data. The fourth section mainly reports the empirical results. The fifth section further analyzes the existing research results and provides a practical basis for the phenomenon of "short-term borrowing for long-term use" in enterprises. The sixth section concludes and suggests the implications.

2. Literature review and hypothesis development

2.1 Definition and measurement of EPU: A literature review

In recent years, more and more literature has focused on the impact of EPU on corporate behaviors (Wang et al., 2014; Gulen and Ion, 2015; Crowley et al., 2018; Jens, 2017; Mueller et al., 2017), and there are mainly the following ways to measure EPU. The first type of literature measures EPU using changes in policy makers and exogenous major economic or political events (Handley and Limão, 2017; Liu and Zhang, 2020; Julio and Yook, 2016; Jens, 2017). Although this method can represent the changes of economic policy to a certain extent, the indicators of EPU measured by this method are discontinuous, and it is impossible to conduct quantitative research on economic policy changes. The second type of literature uses market volatility to measure EPU (Kurov and Stan, 2018; Mueller et al., 2017). Although this method solves the problem of discontinuity in measuring EPU and quantitative analysis of EPU, it can only reflect the economic fluctuations of a specific market, but cannot reflect the fluctuations of the overall macroeconomic policy. With the development of computer technology, the practice of introducing unstructured data such as text into corporate finance research has become more and more common (Tetlock, 2007). The third type of literature builds an EPU index based on news texts. For example, EPU Index developed by Baker et al. (2016) became the earliest method to measure macroeconomic policy uncertainty more accurately. In addition, with the popularization and application of the text analysis method , more and more scholars use the method of Baker et al. (2016) to measure the EPU of different countries and provinces. For example, Davis et al. (2019) constructed China's EPU index based on two leading mainland newspapers, “People's Daily” and “Guangming Daily”. Yu et al. (2021) used the daily texts of 31 provinces in China to construct an EPU index at the province level. Cui et al. (2023) used the text analysis method to calculate China's annual EPU index using Hong Kong's "South China Morning Post" as a newspaper source. Although these methods solve the above three main problems, it can only reflect the uncertainty of macroeconomic policies, but cannot reflect the perception of EPU at the firm level. When using the EPU index at the macro level , we assume that all companies have the same perception of EPU. However, in fact, different regions and industries in the same country have different economic policies, and individual

expectations are formed in various ways. Even in the same policy environment, it is difficult for companies to uniformly perceive EPU.

Based on the above facts, some scholars have gradually constructed indicators of PEPU at the micro level. For example, Hassan et al. (2019) construct a firm-level tax and budget policy uncertainty index, and Benguria et al. (2022) propose a firm-level trade policy uncertainty indicator. However, the indicators of EPU in specific aspects constructed by the above-mentioned scholars from the firm level cannot reflect the firm's perception of the overall macroeconomic policy. Therefore, some studies have used the method of text analysis of corporate annual reports to construct an indicator of PEPU (Wang et al., 2023; He et al., 2023). For example, Wang et al. (2023) sort out the EPU vocabulary, conduct text analysis on the MD&A part of the annual report of listed companies, and construct an indicator of enterprises' perception of macroeconomic policies from a micro perspective, which more accurately reflects the perception of different enterprises on economic policy changes.

2.2 EPU and corporate financing structure

Existing literature studies the impact of EPU on corporate financing from the perspectives of supply and demand. On the one hand, from the perspective of commercial bank supply, rising EPU will lead to an increase in the operating risks of banks, which will prompt banks to reduce their loan scale and have a negative impact on economic performance. For example, Bordo et al. (2016) argue that policy uncertainty has a significant negative impact on bank credit growth. The research of Jiang and Li (2022) finds that in terms of on-balance sheet business, increasing the uncertainty of monetary policy will reduce the scale of bank credit and tighten loan approval standards. Meanwhile, Phan et al. (2021), using data from 23 countries between 1996 and 2016, show that a unit standard deviation increase in EPU reduces financial stability by 2.66 % to 7.26 %. On the other hand, from the perspective of the enterprise, PEPU may make the enterprise reduce its own debt and increase the financing cost at the same time. For example, the empirical results of Liu et al. (2020) and Athari and Bahreini (2023) show that EPU severely discourages real investment and reduces net debt issuance by private firms. Moreover, Liu and Wang (2022) find

through research that EPU has increased the cost of capital in China. However, some scholars have found that the cash flow of enterprises has increased in an environment of EPU. For example, Guizani et al. (2023) find evidence in support of the precautionary motive hypothesis, supposing that Saudi firms tend to accumulate cash as a buffer against negative shocks to their cash flows when firms face EPU and costly external financing from geopolitical tensions. Duong et al. (2020) also believe that companies in the United States have increased their cash holdings in response to high EPU. When facing high EPU, companies hold more cash to cope with the impact of uncertainty, but research on how companies maintain their own liquidity and how to adjust their financing structures is relatively scarce. Therefore, in the context of EPU, it is of practical significance to study how Chinese enterprises adjust their financing structure through bank loans to maintain liquidity.

2.3 Hypothesis development

For financial institutions in China, the development of the financial system is relatively lagging behind. Institutional factors such as an incomplete legal system and insufficient property rights protection will affect the information disclosure capabilities of financial institutions, leading to serious information asymmetry for financial institutions (Fan et al., 2012). Rising EPU will further aggravate the degree of information asymmetry and the agency costs between banks and enterprises, which makes commercial banks and other financial institutions reduce their credit scale (Bordo et al., 2016). Especially in the context of high inflation expectations, the central bank will raise deposit and loan interest rates and implement a tightening monetary policy, which will result in increased financing costs, longer approval cycles, and increased difficulty in financing for companies. If EPU at this time is also high, banks will be more reluctant to lend, leading to a further decline in the level of corporate bank loans. For enterprises, in the context of EPU, market competition becomes intensified and operating risks faced by enterprises will increase. To cope with this situation, enterprises will increase inventories, curb the rising cost of inventory shortages, reduce holdings of financial assets, and switch to holding more operating assets to hedge against inflation risks. At the same time , the high EPU will

increase the financing cost of enterprises (Francis et al., 2014), making enterprises also face high financial risks. Once poor management, enterprises are prone to bankruptcy crisis. In light of debt pressure, enterprises will reduce bank loans. Therefore, when the economic policy is uncertain, enterprises will reduce short-term loans from banks.

With EPU rising, although banks and other financial institutions will reduce the credit rationing for long-term loan demand of enterprises due to the intensification of information asymmetry, financial institutions can still issue short-term loans to enterprises if the enterprises are reliable (Custodio et al., 2013). At the same time, due to the fact that the supervision cost of short-term loans is relatively low (Rajan and Winton, 1995) and banks are risk-averse parties, banks prefer to issue short-term loans instead of long-term loans for enterprises with higher financial risks. Therefore, even in the context of EPU, banks are still willing to provide short-term loans to enterprises. For enterprises, when the internal financial assets of enterprises can't meet the financing needs of enterprises, enterprises will carry out external financing. However, the preparation and approval cycle of debt financing and equity financing is too long, which cannot meet the current financing needs of the enterprise, then enterprises will conduct short-term bank loans. On the one hand, according to the precautionary motive demand theory of liquidity, high EPU will increase the uncertainty of the company's future profitability. In order to avoid financial crises caused by insufficient liquidity as much as possible, rational managers will be more cautious and choose to hold more cash assets (Bloomental, 2007). On the other hand, Jensen and Meckling (1976) and Kahl et al. (2015) believe that short-term debt can help companies save financing costs because of their low interest rates. And financing renegotiation can also play a role in monitoring governance, companies will choose more short-term debt for the purpose of saving costs or strengthening corporate governance. EPU may also be an opportunity for enterprises, when industry competition intensifies, enterprises can take advantage of this opportunity to improve their own market competitiveness through technology research and development, open up new markets in order to lead other competitors, but these actions need

sufficient short-term borrowing support. In addition, short-term borrowing of enterprises will also be used to make up for short-term borrowing and investment in fixed assets. Therefore, in the context of EPU, enterprises will increase short-term loans from banks, that is to shorten the term structure of loan. Based on the above analysis, this paper makes the following assumptions:

H1a. When PEPU increases, enterprises will reduce short-term bank loans.

H1b. When PEPU increases, enterprises will increase short-term bank loans.

The financing ability of enterprises is closely related to the financing constraints of enterprises. If the financing constraints of enterprises are lower, they will get lower financing costs, obtain more financing channels and acquire fund more easily, which will reduce their dependence on short-term bank loans. Under the background of EPU, enterprises' perception of EPU rises, prompting enterprises to increase financing to obtain more cash to maintain liquidity (Bloomental, 2007). For enterprises with high financing constraints, they cannot obtain funds more easily through financing channels other than short-term bank loans. On the contrary, for enterprises with low financing constraints, when the economic policy risks are high, their good reputation can reduce the financing difficulty of enterprises, thereby alleviating the surge of short-term bank loans of enterprises and reducing the financial risks of enterprises. Based on this, we propose the following hypothesis:

H2. The lower the financing constraints of enterprises, the smaller the impact of PEPU on the term structure of loan shortening.

Due to the convenience of bank short-term loan adjustments, when PEPU changes, companies will take the lead in adjusting short-term bank loans, which will be affected by the financial environment of the city where the enterprise is located. Digital finance generally refers to a new financial business model in which traditional financial institutions and Internet companies use digital technology to realize financing, payment, and investment. It expands the service radius and coverage of financial institutions, improves the availability of corporate loan funds, and effectively alleviates the "difficult financing" of enterprises (Li and Guo, 2022). In particular, the popularity of online credit platforms has promoted the horizontal

expansion and vertical penetration of financial institutions, diversifying and facilitating the ways for enterprises to obtain funds, and lowering the financing threshold for enterprises. At the same time, digital finance deeply integrates existing credit resources, enhances the value of corporate customers, reduces corporate financing costs, and solves the problem of "expensive financing" for enterprises. In the environment of EPU, if the digital finance index in the region where the enterprise is located is high, the financing channels of the enterprise can be more diversified and the financing will be more convenient, which will alleviate the borrowing pressure of the enterprise (Chen and Yoon, 2022). When PEPU of enterprises increases, enterprises located in the region with high digital finance index can still maintain their own liquidity in other ways, reducing their dependence on short-term bank loans. Therefore, in the context of EPU, digital finance will alleviate the surge in short-term bank loans of enterprises. Considering the above analysis, the following assumptions are made:

H3. The higher the level of digital finance, the smaller the impact of PEPU on the term structure of loan shortening.

3. Methods and data

3.1 Methods

In order to analyze the impact of PEPU on the term structure of loan, this paper uses the method of text analysis to construct a PEPU index at the firm level, and establishes the response function of corporate short-term bank loans to PEPU. The specific empirical model is as follows:

$$\text{Loan\_short}_{it} = \alpha_0 + \alpha_1 \text{Pepu\_sentence}_{it} + \alpha_2 \text{Control}_{it} + \lambda_i + \mu_t + \pi_j + \varepsilon_{it}$$

Among them, Loan_short_{it} represents the short-term bank loans of the enterprise and $\text{Pepu\_sentence}_{it}$ represents PEPU of the enterprise. Control_{it} represents a series of control variables, including control variables at the micro level and control variables at the macro level. Among them, the control variables at the micro level include size, leverage, return on assets, shareholding ratio, Tobin Q, and age. The control variables at the macro level include GDP growth rate (county and city level) and currency growth rate. λ_i represents the industry fixed effect, μ_t

represents the year fixed effect, π_j represents the province fixed effect and ε_{it} represents the error terms of the model. To control the potential influence of heteroscedasticity and correlation problems, this paper adopts clustering robust standard error at the firm level.

This paper takes China's A-share listed companies from 2011 to 2021 as the research object, and processes the original data in detail according to the following procedures: First, delete ST and PT listed companies. Second, delete listed companies with serious sample shortages. Third, delete financial and insurance listed companies. After processing, a total of 23764 observations are obtained in this paper. To reduce the interference of outliers, we also winsorize the continuous variables at the 1% and 99% levels. The PEPU comes from the annual reports of listed companies on the Juchao Website and is processed through textual analysis. The other data on listed companies come from the CSMAR database and WIND databases and the macro data at the city level come from the China City Statistical Yearbook.

3.2 Data and variables

3.2.1 Dependent variable

Short-term bank loans ($\mathrm{Loan\_short}_{it}$). Referring to Leary (2009) and Lu and Zhang (2012), this paper uses (short-term bank loans of enterprises) / (total assets of enterprises) to measure short-term borrowing of enterprises. At the same time, this paper also defines long-term bank loans ($\mathrm{Loan\_long}_{it}$), using (long-term bank loans of enterprises) / (total assets of enterprises) to measure the long-term borrowing of enterprises. The bank loans of enterprises are mainly composed of short-term loans and long-term loans. The short-term loans are mainly used for the daily operation of enterprises, while the long-term loans are mainly used for investment in research and development of enterprises, investment in fixed assets, etc. Therefore, these two indicators are used to reflect the loan term structure of enterprises shortening or lengthening.

3.2.2 Explanatory variable

The perception of EPU at the firm level ($\mathrm{Pepu\_sentence}_{it}$). Referring to Wang et al. (2023) and He et al. (2023), we use the text-based method to analyze the

annual reports of listed companies to measure firm-level PEPU. The operation steps are as follows: First, this article uses regular expressions to extract the content of the “Management Discussion and Analysis” section in the annual report of listed companies, and removes numbers, English letters and all symbols (except periods). The operation steps are as follows: First, this article uses regular expressions to extract the content of the “Management Discussion and Analysis” section[2] in the annual report of listed companies, and removes numbers, English letters and all symbols (except periods). Then, the extracted text is segmented with a period as a mark, and the segmented sentence is further segmented by using the jieba Chinese word segmentation module. If the words expressing "economic policy" and "uncertainty" appear in a sentence at the same time, the sentence is identified as a sentence expressing EPU. Finally, this paper calculates the proportion of sentences expressing EPU to the total number of sample sentences. Specifically, assuming that the number of sentences in the “Management Discussion and Analysis” section of the listed company i in year t is N, and the total number of sentences expressing EPU is calculated to be N_{it}, then $Pepu\_sentence_{it} = \frac{N_{it}}{N}$. We use this indicator to represent the perception of EPU at the firm level. In the subsequent part of this paper, $Pepu\_word_{it}$ is used instead of $Pepu\_sentence_{it}$ for robustness testing, which is expressed by calculating the ratio of the total number of words in the sentences of EPU to the total number of words in the sample sentences.

3.2.3 Control variables

Referring to Wang and Jiang (2023) and Cui et al (2021), this paper selects the variables that may affect the short-term bank loans of enterprises at the micro level: size ($Size_{it}$), leverage (Lev_{it}), return on assets (Roa_{it}), shareholding ratio ($Top1_{it}$), Tobin’s Q value ($TobinQ_{it}$), age (Age_{it}). At the same time , this paper also selects the variables that may affect the short-term bank loans at the macro level: GDP

[2] The "Management Discussion and Analysis" section is one of the most informative sections in the annual report. It contains the analysis content of the company's management on the company's operating conditions and financial status. It also includes the company's management's judgment and expectations on the company's development strategy and potential policy risks. Therefore, in-depth processing and analysis of the text of this part of the content can obtain the PEPU of enterprises.

growth rate at the county and city level (GDP_{it}), the growth rate of money ($M2_{it}$). In addition, this paper also controls industry fixed effects , year fixed effects and province fixed effects in the regression model. The main variables and specific descriptions are listed in Table 1.

Table 1
Variable definitions

	Variables	Definitions	Measures
Dependent variable	Loan_short	Short-term loans	(Short-term loans) / (total assets)
	Loan_long	Long term loans	(Long-term loans) / (total assets)
Explanatory variable	Pepu_sentence	PEPU of enterprises (sentence)	Number of sentences expressing EPU / total number of sentences
Mechanism variables	Cost	Financing costs	(Interest expense) / (total liabilities at the end of the year)
	ESG	Corporate ESG performance	Take the assignment method, and assign 1-9 points to the grades from C to AAA
Moderating variables	SA	Financing constraints	SA Index
	DFI	Digital finance index (county and city level)	Peking University Digital Financial Inclusion Index
Firm-level control variables	Size	Enterprise size	Ln (total assets + 1)
	Lev	Leverage	(Total liabilities) / (average assets)
	Roa	Return on assets	(Net profit) / (average asset assets)
	Top1	Shareholding ratio	(Number of shares held by the largest shareholder) / (total number of shares)
	TobinQ	Tobin's Q value	(Tradable market value + number of non-tradable shares * net assets per share + book value of

	Age	Enterprise age	liabilities) / (total assets) Ln (enterprise age + 1)
Macro-level control variables	GDP	GDP growth rate (county and city level)	(Gross urban product of the year ÷ that of last year) - 1
	M2	Growth rate of money	M2 growth rate

4. Empirical analysis

4.1 Baseline results

4.1.1 Descriptive statistics

Table 2 shows the descriptive statistics of each variable, including the sample size, mean, standard deviation, minimum, median, and maximum of each variable. Among them, the average value of short-term loans is 0.106, and the average value of long-term loans is 0.052, which shows that the proportion of short-term loans is higher than that of long-term loans. In addition, the standard deviations of the two different types of loans are 0.097 and 0.076, respectively, indicating that the loan term structure varies widely among enterprises. At the same time, the mean value of the PEPU index is 0.123, and the standard deviation is 0.059, which shows that the degree of PEPU varies greatly among different enterprises. This further illustrates the necessity of constructing an indicator of PEPU at the enterprise level.

Table 2
Descriptive statistics

Variables	Obs	Mean	S.D.	Min	Median	Max
Loan_short	23764	0.106	0.097	0.000	0.082	0.427
Loan_long	23764	0.052	0.076	0.000	0.017	0.354
Pepu_sentence	23764	0.123	0.059	0.020	0.115	0.303
Size	23764	22.350	1.285	20.070	22.150	26.060
Lev	23764	0.459	0.193	0.090	0.451	0.879
Roa	23764	0.038	0.059	-0.220	0.037	0.197
Top1	23764	0.343	0.148	0.090	0.321	0.730
TobinQ	23764	1.877	1.082	0.857	1.523	7.088
Age	23764	2.109	0.934	0.000	2.303	3.332
GDP	22277	6.638	1.092	3.898	6.748	8.301
M2	23764	0.116	0.031	0.084	0.106	0.173

4.1.2 Baseline regression

Table 3 reports baseline results for the PEPU and the loan term structure of enterprises. Columns (1) and (2) of Table 3 show the impact of PEPU on short-term loans of enterprises. It can be seen that after considering the year, industry and province fixed effects, the coefficient of PEPU is positive at the 1% significance level whether to add control variables, which indicates that PEPU will significantly increase the short-term loans of enterprises. This is because compared with bond financing and equity financing, short-term bank loans are relatively easy to obtain and the approval cycle is shorter. At the same time, enterprises need to maintain their own liquidity through short-term bank loans to avoid financial problems caused by capital chain breaks in the context of EPU. Column (3) reports the impact of PEPU on corporate long-term loans after adding control variables and fixed effects. The coefficient of PEPU is 0.006, but not significant, indicating that PEPU may increase the long-term loans of enterprises. By comparing the coefficient (0.024>0.006), we find that PEPU has a stronger impact on the short-term loans, and the loan term structure tends to shorten. There are several reasons for this finding. From the perspective of enterprises, the capital cost and the adjustment cost of long-term loans is higher than that of short-term loans. Enterprises are more inclined to short-term loans. From the perspective of commercial banks, the short-term loans provided by banks can pass on the risk through the risk premium and the risk of short-term loans is relatively low. Once enterprises have operational problems, the bank can handle the mortgage assets of the enterprise. Therefore, in the context of EPU, enterprises and financial institutions such as banks are more inclined to short-term loans, thus verifying the hypothesis H1b, and further explaining the importance and necessity of studying short-term loans of enterprises. Next, this paper will continue to analyze the potential impact mechanism of PEPU on the loan term structure shortening.

Table 3

Effect of PEPU on the loan term structure

	(1) Loan_short	(2) Loan_short	(3) Loan_long
Pepu_sentence	0.073***	0.024***	0.006
	(6.91)	(2.64)	(0.72)

Size		-0.015***	0.006***
		(-24.69)	(10.03)
Lev		0.293***	0.052***
		(82.55)	(15.40)
Roa		-0.134***	-0.000
		(-13.39)	(-0.01)
Top1		-0.026***	-0.001
		(-6.95)	(-0.42)
TobinQ		-0.004***	-0.001
		(-6.54)	(-1.10)
Age		-0.000	-0.002***
		(-0.42)	(-2.92)
GDP		-0.002***	0.001
		(-3.02)	(1.22)
M2		0.344***	0.130***
		(9.45)	(3.75)
Constant	0.097***	0.165***	-0.080***
	(67.32)	(10.23)	(-5.18)
Industry	YES	YES	YES
Year	YES	YES	YES
Province	YES	YES	YES
N	23,764	22,277	22,277
Adjusted R^2	0.002	0.403	0.146

Note: *, * * and * * * are significant at the levels of 10%, 5% and 1%, respectively, with t values in brackets.

4.2 Mechanism analysis

In the mechanism analysis part, this paper tries to analyze two potential mechanisms by which the PEPU affects short-term borrowing of enterprises, namely the financing cost mechanism and the ESG performance mechanism. Referring to Chen and Yoon (2022) and Chang et al. (2021), this article uses (interest expenses) / (total liabilities) and the assignment method to assign 1-9 points from C to AAA to represent the financing cost and the ESG performance, respectively. Columns (1) and (2) in Table 4 are mainly used to test whether Pepu_sentence can affect the short-term loans by affecting the financing cost of enterprises. Columns (1) and (2) show the impact of Pepu_sentence on corporate financing costs and its impact on corporate short-term loans, respectively. Column (1) shows that the coefficient of Pepu_sentence is 0.012 and it is significant at the 1% significance level, indicating that PEPU of enterprises will lead to an increase in the financing cost. In addition,

column (2) shows that the coefficient of corporate financing costs is 1.127 , which is significant at the 1% significance level, indicating that with the rise of financing cost, enterprises will make up for their own liquidity shortages through short-term loans when facing EPU. To sum up, with PEPU of enterprises rising, the financing cost of enterprises will increase, which will further intensify the increase of short-term loans and make the loan term structure of enterprises shorten.

Columns (3) and (4) of Table 4 are mainly used to test whether Pepu_sentence can affect the short-term loans by affecting the ESG performance. Columns (3) and (4) of Table 4 show the impact of Pepu_sentence on the ESG performance and its impact on the short-term loans, respectively. Column (3) shows that the coefficient of Pepu_sentence is -0.820, and it is significant at the 1% significance level, indicating that PEPU will reduce the ESG performance. In addition, column (4) shows that the coefficient of ESG is -0.003, which is significantly negative at the 1 % significance level, which means that the ESG performance has a significant mitigation effect on short-term loans. This is because the better the ESG performance of enterprises, the more investment institutions are inclined to finance the enterprises so that the enterprises will not have higher financing demands from the bank. Therefore, enterprises with better ESG performance will be less likely to borrow short-term loans from banks when the EPU is high. The above results show that PEPU will affect the the short-term loans through the ESG performance mechanism. In other words, the increasing PEPU will reduce the ESG performance of enterprises, which will further exacerbate the phenomenon that the loan term structure of enterprises shortens.

Table 4

The innovation investment and financing constraints mechanisms

	(1) Cost	(2) Loan_short	(3) ESG	(4) Loan_short
Pepu_sentence	0.012*** (5.14)	0.008 (0.92)	-0.820*** (-6.76)	0.021** (2.33)
Cost		1.127*** (44.87)		
ESG				-0.003*** (-6.85)

Size	-0.002***	-0.012***	0.304***	-0.014***
	(-12.95)	(-21.78)	(38.61)	(-22.32)
Lev	0.046***	0.242***	-0.853***	0.293***
	(50.09)	(67.35)	(-17.90)	(81.09)
Roa	-0.033***	-0.098***	2.523***	-0.123***
	(-13.04)	(-10.16)	(18.90)	(-12.17)
Top1	-0.010***	-0.014***	0.164***	-0.025***
	(-10.94)	(-3.93)	(3.33)	(-6.74)
TobinQ	-0.001***	-0.002***	-0.022***	-0.004***
	(-7.78)	(-4.37)	(-2.91)	(-6.70)
Age	0.001***	-0.002**	-0.173***	-0.001*
	(7.49)	(-2.56)	(-18.89)	(-1.74)
GDP	-0.002***	-0.001	0.002	-0.003***
	(-8.25)	(-0.66)	(0.17)	(-3.12)
M2	-0.001	0.345***	1.050**	0.337***
	(-0.01)	(9.90)	(2.13)	(9.10)
Constant	0.041***	0.118***	-1.334***	0.168***
	(9.95)	(7.64)	(-6.13)	(10.24)
Industry	YES	YES	YES	YES
Year	YES	YES	YES	YES
Province	YES	YES	YES	YES
N	22,130	22,130	21,976	21,976
Adjusted R^2	0.270	0.455	0.215	0.405

Note: *, * * and * * * are significant at the levels of 10%, 5% and 1%, respectively, with t values in brackets.

4.3 Moderating effects

The above research results show that when the PEPU of enterprises increases, the enterprises will increase short-term loans. In this part, this paper will further analyze the possible impact of internal and external financing conditions on the relationship between the two.

4.3.1 Analysis of moderate effects based on corporate financing constraints

Referring to Guo et al. (2023), this paper introduces financing constraints as the moderator variable into the empirical model for regression. Column (1) of Table 5 shows the results when the SA index[3] is used as the moderator variable. The result shows that the regression coefficient of the SA index is -0.044 and it is significant at the 1% level, which shows that low financing constraints play a buffer role on short-term loans. At the same time, when the PEPU of enterprises interacts with the

[3] The higher the SA index, the lower the financing constraints of the enterprise.

SA index , its coefficient is -0.07, which is negative and significant at the 5% level. This indicates that with the reduction of financing constraints, the impact of PEPU of enterprises on the surge of short-term loans will be weakened. Then, hypothesis 2 is confirmed.

4.3.2 Analysis of moderate effects based on digital finance

Referring to Yao and Ma (2022), this paper uses the digital finance index of Peking University[4] to measure the financing environment of the city where the enterprise is located, and introduces it as the moderator variable into the empirical model for regression. Column (2) of Table 5 shows the empirical results when the digital financial index is used as the moderator variable. The results show that the coefficient of the digital finance index on the short-term loans of enterprises is -0.001, and it is significant at the 1% level, which shows that the digital finance index can alleviate the surge of short-term loans. At the same time, the interaction term of PEPU of enterprises and digital finance index is -0.001 and it is significantly negative at the 1% significance level. This shows that with the improvement of the financial environment in the cities where enterprises are located, the impact of PEPU of enterprises on the surge in the short-term loans will be weakened. Hypothesis 3 is confirmed.

Table 5

Moderate effect based on financing constraints and digital finance

	(1) Loan_short	(2) Loan_short
Pepu_sentence	0.058*** (3.50)	0.116*** (3.91)
SA	-0.044*** (-7.70)	
SA*Pepu_sentence	-0.072** (-2.42)	

[4] The digital financial inclusion series index of Peking University is used as the proxy variable of digital finance. The index series includes 1 general index and 3 sub-indexes. Among them, the total index of digital finance (DFI) is used to measure the overall development degree and spatial agglomeration of digital finance in the cities. The three sub-indicators are the coverage of digital finance (Breadth), the depth of digital financial (Depth) and the level of financial digitization (Level). The coverage of digital finance is used to measure the penetration and availability of digital financial development in the cities. The depth of digital financial is used to measure the diversity and efficiency of digital financial development in the cities. The level of financial digitization is used to measure the intensity and effect of digital technology driving financial development in the cities.

DFI		-0.001***
		(-3.19)
DFI*Pepu_sentence		-0.001***
		(-3.29)
Size	-0.023***	-0.015***
	(-25.57)	(-24.78)
Lev	0.273***	0.294***
	(69.93)	(82.66)
Roa	-0.115***	-0.133***
	(-11.43)	(-13.33)
Top1	-0.026***	-0.026***
	(-7.11)	(-7.00)
TobinQ	-0.006***	-0.004***
	(-10.00)	(-6.57)
Age	-0.002***	-0.001
	(-3.17)	(-0.61)
GDP	-0.002***	0.002
	(-3.13)	(1.41)
M2	0.247***	-0.373**
	(6.66)	(-2.04)
Constant	0.411***	0.272***
	(15.98)	(8.14)
Industry	YES	YES
Year	YES	YES
Province	YES	YES
N	22241	22275
Adjusted R^2	0.408	0.404

Note: *, * * and * * * are significant at the levels of 10%, 5% and 1%, respectively, with t values in brackets.

4.4 Heterogeneity analysis

4.4.1 Heterogeneity analysis based on shareholder control types

In the context of economic development with Chinese characteristics, the nature of corporate property rights will affect the relationship between PEPU and corporate short-term loans. Columns (1) and (2) in Table 6 show the coefficients of Pepu_sentence on state-owned enterprises and private enterprises, the coefficients are 0.039 and 0.012, respectively. Only the coefficient of state-owned enterprises is significant at the 5% level, while the coefficient of private enterprises is not significant, indicating that when the PEPU of enterprises increases, state-owned enterprises will use more short-term loans for financing in order to ensure their own liquidity. This empirical result is similar to the research results of Brandt and Li (2003)

that Chinese banks have provided most of the credit resources to state-owned enterprises with relatively low economic efficiency, while private enterprises with better profitability have difficulty obtaining bank loans. This is because state-owned enterprises are closely connected with banks in China, and compared with private enterprises, it is less difficult and costly for state-owned enterprises to obtain financing (Yu et al., 2021). In the meanwhile, many commercial banks are also state-owned enterprises with closer political ties. These factors are conducive to state-owned enterprises to maintain their own liquidity through short-term loans. On the contrary, the financial and operational risks of private enterprises increase when facing EPU and they will not choose to reduce financial risks through more short-term loans in order to ensure their own liquidity and avoid bankruptcy.

4.4.2 Heterogeneity analysis based on enterprise performance fluctuation

When the economic policies are uncertain, competition among different industries is intensified and full of opportunities. Enterprises may gain a higher market share by changing their own market strategies so that the capital needs of enterprises vary with performance fluctuations. Columns (3) and (4) in Table 6 report the regression coefficients of Pepu_sentence on enterprises with large performance fluctuations and small performance fluctuations, respectively. The coefficients are 0.049 and -0.013, respectively, and only the coefficient of enterprises with large performance fluctuations are significantly positive at the 1 % level of significance, while the coefficients of enterprises with small performance fluctuations are not significant. This shows that as PEPU rises, enterprises with large performance fluctuations can take advantage of this opportunity to expand the markets and borrow more short-term loans to achieve strategic goals such as expanding production and operation, promoting marketing, and enhancing brand value. While for enterprises with less fluctuations in performance, their production and sales links are relatively stable so that their performance will not be greatly affected by perceived differences of EPU. At the same time, excessive idle funds will also cause more opportunity costs for enterprises. Under the background of EPU, enterprises with less fluctuations in performance have relatively low demand for short-term loans, and even out of prudent

considerations, they may reduce short-term loans.

4.4.3 Heterogeneity analysis based on enterprise internal control

Generally, enterprises with good internal control have comprehensive risk monitoring and response measures in the face of emergencies. Therefore, the level of internal control will affect the relationship between PEPU and short-term loans. Columns (5) and (6) in Table 6 show the coefficients of Pepu_sentence on enterprises with good internal control and poor internal control, respectively. The coefficients are 0.033 and 0.014, respectively, and only the coefficient of enterprises with good internal control is significant at the 1% level, while the coefficient for enterprises with poor internal control is not significant. This shows that when PEPU rises, enterprises with poor internal control cannot convert or digest policy risks well due to their own imperfect management systems, so they will use short-term bank loans more cautiously. For enterprises with good internal control, when PEPU increases, they can use short-term loans to alleviate the liquidity, and in the meanwhile, they can better control financial risks, prevent from falling into bankruptcy, and add "cash flow benefits" that they can use short-term loans to carry out more production and operation, current turnovers and R&D. Therefore, enterprises with good internal control can bravely apply for short-term loans from banks and make full use of them.

Table 6

Heterogeneity analysis

	(1) State-owned	(2) Private	(3) Large fluctuations	(4) Small fluctuations	(5) Good internal control	(6) Poor internal control
Pepu_sentence	0.039** (2.37)	0.012 (1.14)	0.049*** (4.23)	-0.013 (-0.89)	0.033*** (2.69)	0.014 (1.01)
Size	-0.06*** (-16.53)	-0.011*** (-14.10)	-0.014*** (-19.30)	-0.015*** (-15.27)	-0.016*** (-21.12)	-0.012*** (-12.44)
Lev	0.290*** (45.59)	0.297*** (69.16)	0.289*** (63.41)	0.299*** (52.47)	0.293*** (57.81)	0.295*** (58.44)
Roa	-0.214*** (-9.88)	-0.113*** (-10.21)	-0.139*** (-10.86)	-0.129*** (-8.04)	-0.159*** (-8.96)	-0.111*** (-8.22)

Top1	-0.030*** (-4.73)	-0.005 (-1.08)	-0.029*** (-6.11)	-0.020*** (-3.29)	-0.025*** (-5.36)	-0.024*** (-4.21)
TobinQ	-0.030*** (-4.73)	-0.005 (-1.08)	-0.003*** (-4.47)	-0.005*** (-4.97)	-0.001 (-1.15)	-0.005*** (-6.34)
Age	-0.007*** (-5.59)	-0.003*** (-4.14)	0.001 (0.08)	-0.001 (-0.80)	0.001 (0.92)	-0.004*** (-3.28)
GDP	0.004** (2.36)	0.001 (1.37)	-0.001 (-1.02)	-0.004*** (-3.43)	-0.002* (-1.80)	-0.003*** (-2.71)
M2	-0.007*** (-4.57)	0.001 (0.21)	0.330*** (7.08)	0.380*** (6.46)	0.329*** (7.65)	0.481*** (6.27)
Constant	0.200*** (3.22)	0.497*** (10.87)	0.154*** (7.55)	0.180*** (6.77)	0.189*** (9.09)	0.120*** (4.44)
Industry	YES	YES	YES	YES	YES	YES
Year	YES	YES	YES	YES	YES	YES
Province	YES	YES	YES	YES	YES	YES
N	8087	14190	13567	8710	11864	10413
Adjusted R^2	0.454	0.411	0.403	0.415	0.405	0.408

Note: *, * * and * * * are significant at the levels of 10%, 5% and 1%, respectively, with t values in brackets.

4.5 Robustness check

4.5.1 Changing the explanatory variables

In the above regression analysis, this paper uses the proportion of sentences expressing EPU in all sentences to measure the PEPU of enterprises. In the part of robustness test, in order to avoid the impact of different measurement methods of explanatory variables on the empirical results, this paper uses the ratio of the total number of words in the sentences of EPU to the total number of words in the sample sentences to measure the PEPU of enterprises, and executes the empirical regression again. The results are shown in column (1) of Table 7. It shows that the relationship between PEPU and corporate short-term loans is still significantly positive after replacing the explanatory variables indicating that the results of this paper are still significant.

4.5.2 Changing the dependent variables

To further ensure the robustness of the results in this paper, we use (short-term loans) / (long-term loans) to represent the term structure of loan (Ratio), and performs

regression analysis again. The results are shown in column (2) of Table 7. The results show that the effect of PEPU on short-term loans is still significant after replacing the explained variables.

4.5.3 Bootstrap self-check

In order to ensure the reliability of the results, this paper continues to use the Bootstraps self-check method for testing. The results are shown in column (3) of Table 7. The results show that after multiple sampling tests, the relationship between PEPU and corporate short-term loans is still positive, which shows that the results of this paper are still significant and consistent with the previous results.

Table 7
Robustness tests

	(1) Loan_short	(2) Ratio	(3) Loan_short	(4) Loan_short
Pepu_word	0.490** (2.57)			
Pepu_sentence		58.573*** (3.07)	0.021** (2.32)	0.031** (0.013)
Size	-0.014*** (-24.35)	-2.295* (-1.89)	-0.014*** (-23.53)	-0.015*** (0.001)
Lev	0.295*** (83.10)	39.951*** (5.22)	0.295*** (77.16)	0.306*** (0.006)
Roa	-0.133*** (-13.33)	23.325 (1.07)	-0.133*** (-12.26)	-0.133*** (0.015)
Top1	-0.018*** (-4.88)	-19.346** (-2.46)	-0.018*** (-4.88)	-0.015*** (0.005)
TobinQ	-0.004*** (-7.20)	-0.651 (-0.50)	-0.004*** (-6.91)	-0.005*** (0.001)
Age	0.002** (2.53)	1.449 (0.95)	0.002*** (2.70)	0.002* (0.001)
GDP	-0.002*** (-2.71)	-5.313*** (-3.17)	-0.002*** (-2.75)	-0.001 (0.001)
M2	0.363*** (9.94)	149.172* (1.93)	0.370*** (10.39)	0.399*** (0.050)
Constant	0.153*** (9.54)	46.204 (1.38)	0.151*** (9.36)	0.147*** (0.022)
Industry	YES	YES	YES	YES
Year	YES	YES	YES	YES
Province	YES	YES	YES	YES
N	22277	14631	22277	11830

Adjusted R^2	0.406	0.057	0.406	0.424

Note: *, * * and * * * are significant at the levels of 10%, 5% and 1%, respectively, with t values in brackets.

4.5.4 Propensity score matching (PSM)

For alleviating the problem of self-selection of samples and ensuring the reliability of the conclusions, referring to the method of Dehejia and Wahba (2002), PSM is used to test. Firstly, a dummy variable is generated according to whether the PEPU of enterprises is higher than the average value of the total sample. If the PEPU of enterprises is higher than the average value, the dummy variable is 1, otherwise it is 0. Secondly, based on the logit model, taking PEPU as the processing variable, we select control variables such as size, leverage, return on assets, shareholding ratio, Tobin's Q value, and age as covariates to estimate the propensity score. Then, according to the 1:1 proximity matching method and propensity score, samples are selected from the control group to match the experimental group. Finally, according to average effect of treatment on the treated (ATT) relative to the control group before and after matching, the impact of PEPU on corporate short-term loans is tested. Column (4) in Table 7 reports the results of the 1:1 proximity matching method. The distribution of covariates before and after matching is shown in Figure 1. The results show that the research conclusions of this paper are robust.

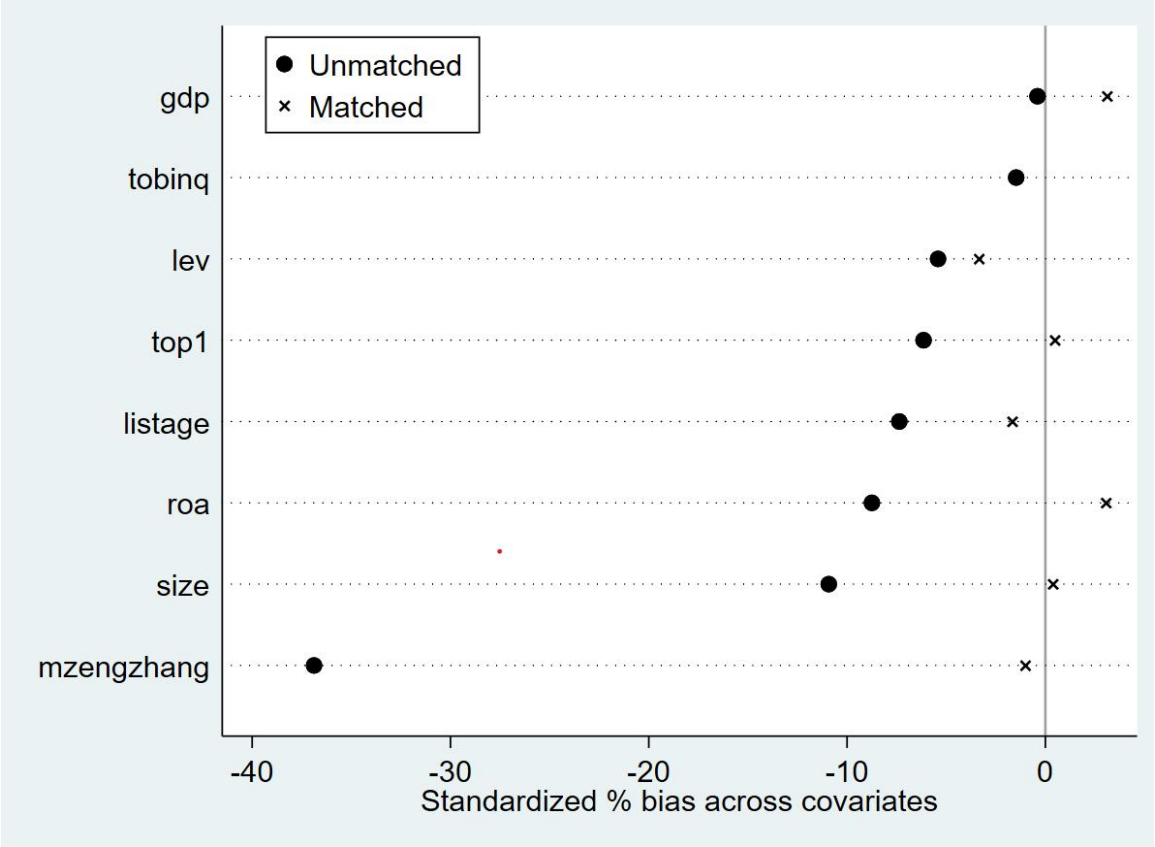

Figure 1

PSM matching results

4.5.5 Use of instrumental variables

In order to alleviate the impact of endogeneity on the empirical results, referring to the method of constructing instrumental variables by Fisman and Svensson (2007), this paper uses the average PEPU of peer enterprises in the same industry and province as the instrumental variable (IV1). At the same time, the EPU index of the United States is used as another instrumental variable (IV2). The two instrumental variables are closely related to the PEPU of enterprises, but they do not have a direct impact on the current short-term bank loans, which satisfies the endogenous and exogenous conditions of the instrumental variables. Using the above two instrumental variables to conduct empirical regression again, the results are shown in Table 8. The results show that when the above two indicators are used as instrumental variables, the relationship between PEPU and corporate short-term bank loans is still positive, which shows that the results of this paper are still significant.

Table 8

Endogeneity test

	(1) Pepu_sentence	(2) Loan_short	(3) Pepu_sentence	(4) Loan_short
IV1	0.661***			
	(35.80)			
IV2			0.081***	
			(12.55)	
Pepu_sentence		0.267***		0.068***
		(6.81)		(3.60)
Size	-0.005***	-0.013***	-0.005***	-0.017***
	(-11.37)	(-20.69)	(-10.69)	(-21.07)
Lev	-0.035***	-0.125***	-0.042***	-0.152***
	(-4.82)	(-12.21)	(-5.56)	(-13.37)
Roa	-0.002	-0.025***	-0.002	-0.025***
	(-0.80)	(-6.70)	(-0.76)	(-6.54)
Top1	0.001	0.293***	-0.000	0.293***
	(0.20)	(80.98)	(-0.16)	(78.66)
TobinQ	-0.002***	-0.003***	-0.001*	-0.004***
	(-4.36)	(-5.60)	(-1.87)	(-7.64)
Age	-0.001	-0.001	-0.001	-0.001
	(-1.07)	(-0.22)	(-1.13)	(-0.11)
GDP	-0.002***	-0.002**	-0.002***	-0.004***
	(-2.65)	(-2.49)	(-3.49)	(-5.07)
M2	-0.105***	0.368***	-0.298***	-0.001
	(-3.94)	(9.77)	(-18.14)	(-0.01)
Constant	0.168***	0.104***	0.173***	0.331***
	(14.23)	(5.44)	(12.23)	(9.46)
Industry	YES	YES	YES	YES
Year	YES	YES	YES	YES
Province	YES	YES	YES	YES
N	22166	22166	22277	22277
Adjusted R^2	0.184	0.384	0.109	0.337

Note: *, * * and * * * are significant at the levels of 10%, 5% and 1%, respectively, with t values in brackets.

5. Further analysis

In the context of EPU, the PEPU of enterprises has increased, leading to a surge in corporate short-term bank loans and the term structure of loan shortening. In this part, this paper further analyzes the whereabouts of short-term bank loans of enterprises, so as to conduct regression analysis on long-term debt (Debt) and fixed assets (Fixed) of enterprises which are measured by debt of three years or more) / (total assets) and (fixed assets) / (total assets), respectively. The regression results are

shown in Table 9. The empirical results show that the PEPU of enterprises is significantly negatively correlated with long-term debt, and significantly positively correlated with fixed asset whether to add control variables and fixed effects. Therefore, we have confidence to suppose that enterprises maintain their own liquidity by means of short-term borrowing from banks, and use it to make up for the lack of long-term financing and invest in fixed assets when facing high EPU. Based on the above analysis, we believe that the increasing PEPU of enterprises makes the term structure of loan shorten. At the same time, there is a phenomenon of "short-term borrowing for long-term use" when EPU is high.

Table 9

Further analysis

	(1) Debt	(2) Fixed	(3) Debt	(4) Fixed
Pepu_sentence	-1.810*** (-10.42)	0.072*** (3.83)	-0.041** (-2.20)	0.073*** (3.78)
Size		0.012*** (10.07)	0.994*** (812.16)	0.011*** (8.47)
Lev		0.003 (0.41)	2.523*** (340.68)	0.012 (1.58)
Roa		0.030 (1.44)	0.319*** (15.36)	0.046** (2.14)
Top1		0.073*** (9.67)	-0.006 (-0.81)	0.055*** (6.96)
TobinQ		0.000 (0.31)	-0.014*** (-11.64)	0.002* (1.66)
Age		0.012*** (8.54)	0.016*** (11.40)	0.010*** (7.29)
GDP		-0.005*** (-4.90)	-0.003** (-2.00)	-0.001 (-0.54)
M2		0.192*** (5.20)	-0.266*** (-3.51)	0.444*** (5.73)
Constant	21.683*** (915.48)	-0.099*** (-3.74)	-1.951*** (-58.02)	-0.150*** (-4.36)
Industry	No	No	YES	YES
Year	No	No	YES	YES
Province	No	No	YES	YES
N	23764	22262	22277	22262
Adjusted R^2	0.005	0.028	0.991	0.053

Note: *, * * and * * * are significant at the levels of 10%, 5% and 1%, respectively, with t values in brackets.

6. Conclusions and implications

In the context of EPU, cash flow is essential to enterprises and how enterprises generate free cash flow to sustain their own liquidity is a topic worth researching in the unique economic situation of China. At the same time, as an independent entity of economic development, enterprises have different perceptions of EPU when facing the same policy environment so that this paper constructs an PEPU index at the firm level to reflect the distinctive perception of each enterprise. This paper takes China's A-share listed companies from 2011 to 2021 as the research object, uses the text analysis method to deeply study the impact of PEPU on the term structure of loan and the potential influence mechanism, and further examines the moderating effect of the digital financial index and corporate financing constraints on the relationship between the two. The research results find that: first, when the PEPU of enterprises increases, enterprises choose to increase their short-term loans rather than long-term loans, which means the term structure of loan shortening, and there is a phenomenon of "short-term borrowing for long-term use". The mechanism analysis shows that PEPU affects the term structure of loan through the financing cost mechanism and the ESG performance mechanism. Second, the digital financial index and the financing constraints of the enterprises are important moderating variables that affect the relationship between the PEPU of enterprises and the term structure of loan. When the digital finance index rises and the financing constraints are low, the impact of PEPU of enterprises on the surge in short-term bank loans will be weakened. Third, PEPU of enterprises has a heterogeneous impact on short-term bank loans of enterprises. Specifically, the phenomenon of the term structure of loan shortening is more obvious in state-owned enterprises, enterprises with large performance fluctuations and enterprises with better internal control. Finally, after a series of robustness tests, the phenomenon that PEPU shortens the term structure of loan still exists.

Based on the above conclusions, this paper has provided the following policy implications. First, for enterprises that serve as microcosmic entities to promote China's economy, it is crucial to maintain operational stability and sound development.

When macroeconomic policies fluctuate, enterprises should take corresponding financing measures to maintain sufficient cash flow so as to avoid liquidity risk and bankruptcy crisis. On the one hand, enterprises should establish a comprehensive regulatory system to control potential financial risks. On the other hand, enterprises should maintain good ESG performance to alleviate the problems of "difficult financing" and "expensive financing" in the context of EPU. Second, the research in this paper finds that although the increase in PEPU will shorten the term structure of loan, the surge in short-term borrowing will be affected by corporate internal management and external environment. When the enterprises' financing constraints are low and the external financial environment is good, the impact of PEPU of enterprises on the surge in short-term borrowing will be weakened. Therefore, in order to avoid great liquidity risks caused by EPU, enterprises should actively improve their own financing constraints, overcome financing difficulties and reduce financing costs. At the same time, it is advisable for enterprises to choose cities with a more favorable financial environment to conduct their primary operations. Third, financial institutions should strengthen financial supervision and actively provide financing services for enterprises to reduce the liquidity risk. In order to ensure the stable operation of the financial system and reduce the cost of corporate financing, financial institutions can provide more policy support and guidance to help enterprises cope with uncertainties and challenges. Fourth, the government should provide a good economic environment for enterprises by providing loans and guarantees, tax and fee reductions, subsidies and incentive plans, which can stabilize domestic economic policies and help enterprises avoid liquidity risks and falling into bankruptcy. On the one hand, the government can temporarily reduce or defer corporate taxes and fees, such as business tax, income tax and rent, in order to reduce the burden on enterprises and their liquidity risks. On the other hand, the government can set up subsidy and incentive programs to encourage enterprises to innovate and transform, thereby improving their market competitiveness, increasing income, and mitigating liquidity risks.

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