Structural monetary policy, corporate behavior, and pay gap: Evidence from SMEs in China

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ABSTRACT

Based on the implementation of a series of structural monetary policies for small and micro enterprises (SMEs), this study examines the impact of these policies on the pay gap between SMEs and large enterprises (including medium-sized enterprises) and their generation mechanisms. The study finds policy implementation can enable SMEs to achieve higher employee salary growth. In addition, SMEs tend to increase current output, reserve future inventories, and prefer liquidity needs has suppressed the growth of relative wages. On the contrary, SMEs with expanded financial investment, increased R&D investment, increased long-term borrowing and higher retained earnings have increased relative wages.

1. Introduction

Under the dual squeeze of weak external demand and sticky internal costs, small and micro enterprises (SMEs[1]) are facing a test of survival. As such, implementing precise policies to help SMEs alleviate these difficulties is a pressing task. Since 2014, the People's Bank of China (PBoC) has repeatedly issued small-support reloans and inclusive small and micro loans to local financial institutions, guiding them to expand loans to SMEs through "precision drip irrigation" by providing incentive funds or reducing financing costs (details related to structural monetary policy [SMP] are provided in Appendix A). SMP also provides a "quasi-natural experimental" environment for evaluating the corporate behavior under liquidity shocks.

SMP is a tool used by the PBoC to guide the credit allocation of financial institutions. It also plays a role of precise drip irrigation and leverage. This policy includes tools for providing re-lending funds to financial institutions and for providing them with incentive funds. Specifically, China's "re-lending" policy is a monetary policy tool launched by the PBoC, which requires financial institutions to first

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provide credit support to specific areas and industries. Following this support, the PBoC provides re-lending funding support based on a certain proportion of the credit issuance of financial institutions. The re-lending policies currently implemented include the re-lending policy to support agriculture, the re-lending policy to support small businesses, the special re-lending policy to support clean and efficient use of coal, the re-lending policy for scientific and technological innovation, etc. The introduction of these policies aims to promote the development of specific economic fields or solve specific economic problems by providing financial support to financial institutions. Similar policies include the three rounds of targeted longer-term refinancing operations conducted by the European Central Bank in 2014, 2016, and 2019, which aim to promote banks' lending to the real economy (especially small businesses and households) by providing them with long-term and low-cost loans. It was assumed that the targeted longer-term refinancing operations policy could effectively reduce banks' loan interest rates for relatively safe borrowers while indirectly promoting an increase in loan supply in the overall loan market and relaxing credit standards by enhancing market competition (Andreeva and Garcia-Posada, 2019). Additionally, to help small businesses maintain employee salaries and pay rent and other operating expenses during the COVID-19 period and thus slow down the rise in social unemployment, the U.S. government passed the Payroll Protection Program (PPP). This program was established by the Coronavirus Aid, Relief, and Economic Security Act in 2020, and the Federal Reserve created the PPP Liquidity Facility in April of the same year. The PPP Liquidity Facility provides loan support to banks, enabling them to issue forgivable loans to eligible small businesses without taking on significant risks. This policy is believed to have effectively alleviated the financial pressure of small businesses and promoted the operation and development of small businesses during the epidemic (Karakaplan, 2021).

Additionally, the inclusive small and micro loan support tool is used for providing incentive funds in SMP. This requires financial institutions to continue to provide credit support to SMEs. Following the use of this tool, the PBoC provide incentive funds or deposit reserve ratio discounts based on a certain proportion of the increase in the credit balance of the financial institutions. Taking the targeted reduction of the reserve requirement ratio, an important monetary policy measure in the inclusive small and micro loan support tool, as an example, this policy is aimed at financial institutions that provide credit to SMEs and other real economy sectors. The PBoC regularly assesses the increase and growth rate of credit provided by financial institutions to SMEs and lowers their deposit reserve ratio by the difference (see Appendix A for details).

Since June 2014, the PBoC has launched a series of SMP tools for SMEs including small business re-lending and inclusive small and micro loan support tools, aiming to provide precise assistance to SMEs in entrepreneurship, financing, and burden reduction. In the research evaluating the effectiveness of this policy tool on SMEs, some scholars recognize its stimulating effect on increasing loan availability for SMEs (Kong et al., 2021), but some scholars believe that the policy has heterogeneous impacts on enterprises of different ownership (Lin et al., 2021) and different sizes (Chen et al., 2023) and that the policy has failed to achieve the expected results (Liu et al., 2023).

Similar policies aimed specifically at supporting small enterprises are a key focus among Asia-Pacific economies. For example, to address the problem of small businesses having difficulty obtaining bank credit, in the late 1990s Japan launched the Special Credit Guarantee Program, and after the Lehman crisis in 2008, it launched the Emergency Guarantee Program, through which the government provided additional credit guarantees for bank loans to small and medium-sized enterprises. These policies have significantly increased banks' supply of loans to small and medium-sized enterprises as well as the proportion of bank loans (Wilcox and Yasuda, 2019). To promote innovation in small and medium-sized enterprises, the South Korean government has been implementing research and development (R&D) funding support projects since 1998. The results have confirmed that R&D funding support can improve the management performance of small and medium-sized enterprises, especially the increase in the income and employment of applicant companies (Jin and Lee, 2020). In response to the survival difficulties of small businesses under the epidemic, the Reserve Bank of Australia proposed the Term Financing Facility, which aims to provide additional financial support to banks that increase lending to SMEs (Debelle, 2020). During COVID-19, Singapore launched several financial assistance and loan guarantee programs, such as the Temporary Bridging Loan Programme and the Enterprise Financing Scheme – Trade Loan through Enterprise Singapore, aiming to ensure that small businesses can obtain the necessary financial support when facing cash flow interruptions and working capital shortages (Hin, 2020).

To help small businesses improve their credit availability and thus ease financing constraints, countries have successively introduced a variety of policy measures. However, whether the smooth implementation of the policies can ensure that small businesses can effectively maintain business operations and maintain employee salaries is still a question that needs to be discussed. There is considerable evidence that small firms face financial constraints (Bellon et al., 2021; Kerr and Nanda, 2009), which may lead to the deferral of employee compensation until businesses can pay more. Some scholars believe that companies with limited credit have poor liquidity and that deferring the payment of employee wages is a way to borrow money from employees to bridge the liquidity gap (Michelacci and Quadrini, 2009). After small companies obtain liquidity, they increase their wages to compensate for past wage shortfalls (Sun and Xiaolan, 2019). However, some scholars have argued that the injection of external funds does not necessarily lead to an increase in employee wages. For example, vertical foreign direct investment has an insignificant effect on increasing employee income (Gao, 2005). This study explores whether SMEs choose to grant higher employee wages to larger and medium-sized enterprises when credit expands and further explores the corporate behaviors that lead to this effect. Scientifically exploring how SMP can improve employee wages in target enterprises is of great theoretical value for revealing the corporate behavior of SMEs. Simultaneously, it has important practical significance for further improving the long-term and periodic tools of SMP.

This study finds that a series of SMP can enable SMEs to provide higher employee wage increases than large and medium-sized enterprises. After experiencing SMP, the process of increasing relative employee wages is affected by the behavior in maintaining corporate survival. For example, the need for SMEs to increase current output, reserve future inventories, external equity financing, and liquidity has inhibited the growth of relative employee wages, while the need for financial investment, investment in R&D,

increases in long-term borrowings, and increases in retained earnings have increased the growth in relative employee wages.

This study makes three marginal contributions. First, the research perspective of this article is innovative. Existing research has examined the impact of SMP on SMEs financing (Lin et al., 2021), tax avoidance (Kong et al., 2021), operational recovery (Chen et al., 2022), etc. Based on the view that small companies with limited credit have poor liquidity and that deferring the payment of employee wages is a way to borrow money from employees to bridge the liquidity gap (Khan, 2022; Schiantarelli et al., 2020), the study of compensation for employee wages after enterprises obtain liquidity is also an important topic. However, no papers have been found that explore the salary adjustments of employees after SMEs obtain liquidity under SMP. Second, this study proposed a novel research mechanism. Based on Berman and Bui's (2001) research, this study constructs a model of the impact of SMP on the per-capita salary of enterprises and explores the output, interest rate, financing, and employment mechanisms for enterprises to obtain liquidity. This approach provides new empirical evidence for research on the path of employee salary improvement in labor economics. Third, this study's method for obtaining samples of SMEs is relatively novel. Existing research samples on China's SMEs often choose to divest relatively small enterprises from listed companies (Lin et al., 2021). Many of the SMEs obtained by this method have enterprise sizes exceeding those recognized by China's "Measures for the Classification of Statistically Large, Medium, Small and Micro Enterprises" and "Measures for the Classification of Statistically Large, Medium, Small and Micro Enterprises (2017)" or only meet the recognition requirements in one year. The selection of SME samples in this paper is undertaken in full accordance with the requirements of these documents, and to align the sample more with the recognition of SMEs, the sample screening method is adjusted in the robustness part. Based on the National Equities Exchange and Quotations (NEEQ) enterprise data from 2010 to 2022, this article compares the 2011 and 2017 versions of the national economic industry classification standards (see footnote 1), identifies enterprises that meet the small and micro standards year by year, and then obtains samples of SMEs.

The remainder of this paper is organized as follows. In Section 2, we review the related literature. In Section 3, we present the theoretical analysis and research hypotheses. Section 4 presents the estimation results, and Section 5 includes the mechanism test. Section 6 includes the heterogeneity analysis, and Section 7 concludes the paper.

2. Theoretical analysis and research hypotheses

The effectiveness of monetary policy is a core issue that domestic and foreign economic circles continue to pay attention to but disagree with to varying degrees. In contrast to the quantity theory of money, which states that monetary policy is relatively ineffective in intervening in the real economy, Keynesian economics tends to give monetary policy more effectiveness. Based on the view that monetary policy can have a significant impact on the real economy, this study explores the impact of SMP on the behavior of microenterprises.

2.1. Research Progress on the credit shocks affecting employee compensation

In recent years, with the growing transparency of employee compensation data disclosure, scholars have begun to pay attention to the factors that affect employee compensation. In the literature exploring the impact of credit shocks on employee compensation, some studies have shown that expansionary monetary policies can promote an increase in employee wage rates (Chodorow-Reich, 2014; Hachula et al., 2020). Furthermore, the positive impact of expansionary monetary policy on employee wages may be heterogeneously affected by differences in educational background (Israel and Latsos, 2020), production efficiency (Kappes, 2022), asset holdings (Ballabriga and Davtyan, 2022), etc. Nonetheless, there is little literature exploring the differentiated impact of expansionary monetary policy on the wages of employees in enterprises of different sizes.

Compared with large and medium-sized enterprises, SMEs have more difficulty in obtaining bank credit due to their higher information opacity (Canton et al., 2013; Yoshino and Taghizadeh-Hesary, 2019), fewer collaterals (North et al., 2010), etc. Therefore, it is difficult for expansionary monetary policy to achieve similar bank credit growth for SMEs as for large and medium-sized enterprises. However, a series of SMP on SMEs is equivalent to supplementing credit support, which may make up for the natural unfair credit allocation between SMEs and large and medium-sized enterprises to a certain extent. Furthermore, when small businesses have difficulty obtaining credit from banks and face financial constraints, they may postpone the payment of employee wages to compensate for the liquidity gap (Bellon et al., 2021; Ferreira et al., 2014). After obtaining liquidity, wages increase (Garmaise, 2008; Michelacci and Quadrini, 2009; Sun and Xiaolan, 2019). Because small businesses are required to repay bank debt in a fixed amount over a fixed period, regardless of the company's performance, deferred employee salaries do not have such strict payment restrictions, allowing companies to manage liquidity more loosely (Guiso et al., 2013; Howell and Brown, 2023). Therefore, this study proposes the following hypothesis:

H1. SMP will increase the relative wages of SMEs.

2.2. Research Progress on corporate behavior

The monetary policy transmission mechanism is the basis for analyzing the transmission effectiveness of monetary policy and intuitively reflects the mechanism of the impact of monetary policy on microenterprises' economic decision making through various transmission channels.

2.2.1. Methodology

Based on Berman and Bui (2001), this study constructs a theoretical analysis framework for the impact of SMP on corporate per-capita compensation.

If the enterprise uses cost minimization as the factor input decision-making principle, the enterprise's variable cost function can be expressed as

$$C = f(O, V_1, \cdots, V_K, \cdots, V_E, \cdots, V_M, Q_1, \cdots, Q_K, \cdots Q_E, \cdots Q_N) \tag{1}$$

C represents the variable cost of the enterprise. O is the enterprise's output. Assuming that the production factors include M variable factors and N quasi-fixed factors, $V_M(m = 1, 2, \ldots, K, \ldots, E, \ldots, M)$ represents the price of the m-th variable factor and $Q_N(n = 1, 2, \ldots, K, \ldots, E, \ldots, N)$ is the n-th quasi-fixed factor input amount. According to Sheppard's Lemma, the demand for variable factor labor E can be expressed as a function of enterprise output, variable factor prices, and quasi-fixed factor input quantities. This study uses a linear equation to approximate the variable factor of labor E as follows:

$$E(O, V_1, \cdots, V_K, \cdots, V_E, \cdots, V_M, Q_1, \cdots, Q_K, \cdots Q_N) = \alpha + \varphi_0 O + \beta_k Q_K + \sum_{n=1, n \neq K}^{N} \beta_n Q_n + \gamma_K V_K + \gamma_E V_E + \sum_{m=1, m \neq K, m \neq E}^{M} \gamma_m V_m \tag{2}$$

α, φ, β, and γ are parameters. β_k depends on the relationship between the amount of capital and labor caused by SMP. γ_K depends on the relationship between changes in corporate credit costs and labor caused by SMP. γ_E depends on the relationship between changes in wages and labor caused by the SMP.

If P represents SMP, ψ represents the marginal impact of this policy on employment, and σ represents the impact of other factors besides this policy, then the relationship between employment and this policy can be simplified as

$$E(O, V_1, \cdots, V_K, \cdots, V_E, \cdots, V_M, Q_1, \cdots, Q_K, \cdots Q_N) = \sigma + \psi P \tag{3}$$

Solving for the total derivative of P on both sides, the impact of SMP P on employment can be expressed as

$$dE \Big/ dP = \psi = \varphi_0 dO \Big/ dP + \gamma_K dV_K \Big/ dP + \gamma_E dV_E \Big/ dP + \sum_{m=1, m \neq K, m \neq E}^{M} \gamma_m dV_m \Big/ dP + \beta_k dQ_K \Big/ dP + \sum_{n=1, n \neq K}^{N} \beta_n dQ_n \Big/ dP \tag{4}$$

Assuming that, except for the capital and labor markets, the other input factor markets are perfectly competitive, SMP will not affect the prices of variable factors beyond capital and wages, and the fourth and sixth items on the right will both be 0. Simultaneously, the above equation becomes

$$dV_E/dP = -\varphi_0/\gamma_E \times dO/dP - \gamma_K/\gamma_E \times dV_K/dP - \beta_k/\gamma_E \times dQ_K/dP + 1/\gamma_E \times dE/dP \tag{5}$$

The equation on the right side of Eq. (5), from left to right, represents the output, interest rate, financing, and employment effects, respectively. SMP affects employee compensation by affecting output, financing costs, corporate capital, and corporate employment.

Combined with theoretical analysis, this study produces the following mechanism diagram of the impact of this series of policies on wages (Fig. 1).

2.2.2. Research progress of monetary policy on corporate behavior

Following the Methodology section, this section continues the analysis framework (Fig. 1), adding the theoretical basis that SMP affects corporate micro-subjects through output, interest rates, financing, employment mechanism, and hypotheses.

Scholars have determined that monetary policy not only changes the scale of corporate credit but also has a significant impact on future corporate output (Jiménez et al., 2012). Regarding whether changes in enterprise production scale under credit shocks can
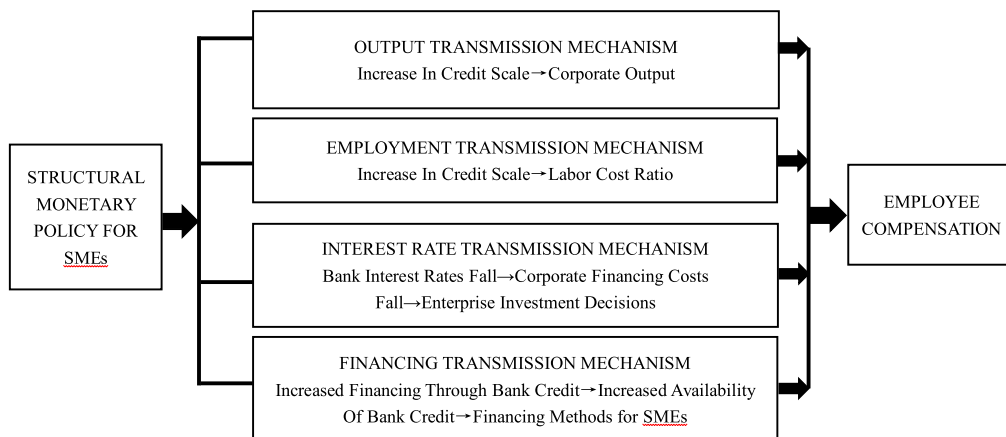

Fig. 1. The impact mechanism of structural monetary policy on employee compensation.

explain changes in employee wages, Howell and Brown (2023) maintain that higher profit growth or productivity improvement is not a direct model to explain the wage effect. However, there is limited literature on whether an increase in enterprise production scale has an indirect effect on employee compensation under credit shocks.

Restrepo et al. (2019) find that when corporate liquidity declines, companies may increase their cash buffers by selling inventories, such as raw materials, and reducing production scale. When liquidity tightens, companies tend to increase cash flow through inventory liquidation. When a company's liquidity capability increases, it may also increase its inventory reserves to boost production. Difficulties in obtaining credit for SMEs may also lead to a crowding-out effect; that is, when external credit expands, the inventory input required for enterprise output growth crowds out an increase in employee wages. Based on this point of view, this study proposes the second hypothesis:

H2.1. Under SMP, the increase in output will crowd out the relative wage increase in SMEs.

Corporate investment promotes the capital accumulation of enterprises and can be regarded as an important reserve force for enterprise output (Bond and Xing, 2015). When the internal liquidity of a company is sufficient, it may maintain better investment (Duchin et al., 2010) or have a tendency to replace investment with cash savings (Campello et al., 2011), which may also increase employee wages. Specifically, companies may increase employee salaries due to profit sharing after investment returns (Li et al., 2020) and the demand for high-quality talent in the context of transformation and upgrading (Kline et al., 2019; Kong et al., 2020). Based on this, this study proposes the following hypothesis:

H2.2. Under SMP, increased investment will actively promote wage growth in SMEs.

Additionally, when external credit shocks occur, expansion of the enterprise production scale requires an increase in the number of employees. And when new employees cannot effectively increase marginal output (Dossche et al., 2019), meet labor cost control needs (Caggese et al., 2019), and maintain the overall salary structure (Gartenberg and Wulf, 2020), it means that the increase in the number of employees may squeeze employee wage growth. Based on the above viewpoints, this study proposes the following hypothesis:

H3. . Under SMP, an increase in the labor force will crowd out the relative wage increase of SMEs.

The PBoC usually manages the money supply by using its credit scale, deposit reserves, and other policy tools to adjust interest rates. However, the rapid increase in the scale of financial innovation has made it more difficult to measure money supply accurately. As a result, the role of interest rates as an intermediate target of the monetary policy transmission mechanism has become more obvious. This has also attracted the attention of many economists regarding the interest rate transmission mechanism (Damianov et al., 2021). Some scholars have proposed that the monetary policy interest rate transmission mechanism plays an important role in SMEs (Bernanke and Blinder, 1988; Morris and Shin, 2012). Specifically, monetary policy affects banks' risk-taking, promotes changes in bank loan conditions, regulates corporate loan costs, and affects loan willingness (Adachi-Sato and Vithessonthi, 2017; Borio and Zhu, 2012), thereby affecting corporate financing costs and subsequent production and investment decisions (Cloyne et al., 2023). Since SMEs have fragile capital chains and rely heavily on external financing, rising financing costs may change the investment balance between capital and labor (Zhu et al., 2022). In particular, loose monetary policies and declining market interest rates have reduced the financing costs of these companies, which may stimulate employee salary increases. Therefore, the following hypothesis is proposed:

H4. Under SMP, a decline in interest rates stimulates the growth of relative wages in SMEs.

Numerous scholars have found that monetary policy affects the credit scale of commercial banks, which then transmit these effects to micro entities, driving changes in their commercial bank loan scales (Barraza et al., 2019; Bernanke and Blinder, 1988; Borio and Zhu, 2012). Compared to large and medium-sized enterprises, SMEs have weaker financing capabilities and more stringent financing conditions; this has been recognized unanimously by scholars. Therefore, when small businesses have difficulty obtaining credit from banks and face financial constraints, they may postpone the payment of employee wages to compensate for the liquidity gap (Bellon et al., 2021). Nevertheless, SMEs still rely on the credit lines provided by banks to maintain daily operations (Ivashina and Scharfstein, 2010). And after gaining liquidity in the future, compensatory increases will be made to salaries (Sun and Xiaolan, 2019). Based on the above corporate external financing, this study proposes the following hypothesis:

H5.1. Under SMP, increased external financing will stimulate relative wage growth in SMEs.

In a credit crunch, companies may resort to internal financing using their internally generated assets to ease liquidity pressure. This strategy facilitates upcoming investments or repayments because fewer costs are incurred than with external financing (Lins et al., 2010; Sufi, 2009). Thus, when a company retains a large amount of earnings, it means that the company actively retains past earnings, possibly for the purpose of increasing employee salaries.

H5.2. Under SMP, an increase in retained earnings may promote the relative growth of wages in SMEs.

The mechanism test in Section 4 launches an empirical test of the above conjecture.

3. Study design

3.1. Empirical model

The difference-in-differences (DID) model used in this study treats institutional changes and new policies as "natural experiments" exogenous to the economic system, which can avoid the endogeneity problem that occurs when policies are used as explanatory variables. The implementation of the SMP for SMEs may not only lead to differences in employee wages before and after the implementation of the policy but also to differences in employee wages in enterprises of different sizes. Regression estimation based on the DID model can effectively avoid the impact of other simultaneous policies while controlling for unobservable individual heterogeneity differences under the impact of the policy, and then it can identify the net impact of the policy impact on micro-firm behavior. Therefore, SMP targeting SMEs can be regarded as a "quasi-natural experiment." Based on the differences in the time when different SMEs obtain small enterprise and micro enterprise status, we first use the staggered DID method to evaluate the policy effect.

$$Salary\_p_{it} = \alpha_1 + \beta_1 Treat_{it} + \theta_1 X_{it} + \gamma_i + \delta_i + \epsilon_{it} \tag{6}$$

$Salary\_p_{it}$ represents the per-employee salary of enterprise i in period t, measured as the logarithmic ratio of the current employee salary to the number of employees.[2] $Treat_{it}$ is assigned a value of 1 to enterprise samples that meet both the identification of SMEs and the time when the policy occurs; it is assigned zero in other cases. The core variable that this study focuses on is the coefficient β_1, which measures the effect of the policy on the per-capita salary of employees in SMEs. γ_i and δ_i represent firm- and time-fixed effects, respectively. ϵ_{it} is a random disturbance term that affects the average salary of enterprise employees. X_{it} represents a series of control variables that affect the employment of enterprise i in period t.

3.2. Sample selection and data sources

This study uses NEEQ[3] companies as a research sample, and the financial data come from the 2010–2022 semi-annual reports and annual report data of the Choice database.[4] On this basis, financial, agriculture-related enterprises, companies with serious missing data, and companies with abnormal financial data[5] were eliminated.[6] After the above processing, 92,053 observations were obtained. This study selects corporate asset size, growth, profitability, asset-liability ratio, asset tangibility, cash flow capacity, and GDP growth rate of each region as control variables (Table 1).

During the half-year period of 2010 to the half-year period of 2017 for the sample of enterprises, this article is based on China's "Measures for the Classification of Statistically Large, Medium, Small and Micro Enterprises" and "Measures for the Classification of Statistically Large, Medium, Small and Micro Enterprises (2017)" as the classification basis.[7,8,9] Finally, for this article 794 SMEs were

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[2] Employee salary can be measured in two ways: i) to obtain the "payment" from the cash flow statement "Cash payments to and for employees" item and ii) from the opening and closing amounts of the "employee compensation payable" item on the balance sheet. Because the employee compensation payable item describes the situation where the enterprise pays but has not actually paid wages, the actual payment item from the cash flow statement describes the actual payment amount of the enterprise. To conform to the actual annual employee compensation paid by the company, this study uses the actual payment added to the employee compensation payable this year to measure labor income. The final average employee salary was calculated by dividing labor income by the number of employees and taking the logarithm. The following study uses the actual payment number in the cash flow statement to measure labor income and calculate the corresponding average employee salary as a robustness test.

[3] NEEQ is a national equity trading platform for unlisted joint stock companies and mainly targets micro, small, and medium-sized enterprises. These companies do not meet the listing standards of the main board market and can conduct financing and equity transactions on this platform.

[4] Choice database provides quarterly frequency data of NEEQ-listed companies from the first quarter of 2010 to 2020 annual reports. There are many missing values in the first- and third-quarter data; therefore, this article selects semi-annual and annual data as the research scope.

[5] The companies with abnormal financial data that are removed include only companies with total assets of zero, total liabilities of zero, and total owners' equity of zero.

[6] While implementing policies for SMEs, there are also policies such as agricultural relending and rediscounting for agricultural enterprises. In order to prevent agricultural SMEs from being affected by different structural policies at the same time, this article excludes agricultural enterprises from the scope of research.

[7] Based on the first implementation of the SMP for SMEs in 2014 after its release, banks classified micro, small, medium, and large enterprises in each industry based on the three indicators of enterprise operating income, employees, and total assets under the national economic industry classification and code at that time. In the process of defining whether a business is an SME, 2017 was used as the dividing year. Before 2017, the "Measures for the Classification of Statistically Large, Medium, Small and Micro Enterprises" applies, and after 2017, the "Measures for the Classification of Statistically Large, Medium, Small and Micro Enterprises (2017)" applies.

[8] Because the employee index in the "Standard Regulations for Classification of Small and Medium-sized Enterprises" includes part-time employees and the number of employees obtained from the Choice database is taken from the number of regular employees disclosed in the company's annual report, there is a risk of misidentifying some large and medium-sized enterprises as SMEs. However, this error weakens the policy effect and does not affect the core conclusions of this study.

[9] In the process of classifying SMEs and large and medium-sized enterprises based on the above documents, considering that the SMP for SMEs has been continuously promoted since 2014 and assuming that the enterprises meet the requirements of SMEs in the "Classification Standards for SMEs." The enterprise standard was eligible for small- and micro-enterprise treatment in the following year. Enterprises that meet the small- and micro-enterprise standard from 2013 to 2021 were recognized as SMEs, and the year of obtaining status was set as the year when they first meet the conditions. Other identification methods for SMEs will be supplemented in the robustness section.

Table 1
Main variable selection and definition.

VARIABLE NAME	VARIABLE SYMBOL	MEANING
Asset size	sz	Enterprise Logarithmic Total Assets (Chen et al., 2021)
Growth	g	Year-on-Year Growth Rate of Total Business Revenue
Profitability	roa	Return on Total Assets of the Enterprise
Assets and Liabilities	dtr	Enterprise Debt-to-Asset Ratio
Asset Tangibility	fix	Proportion of Enterprise Fixed Assets to Total Assets
Cash Flow Capability	cfo	Proportion of Cash Flow from Corporate Operating Activities to Total Assets
Enterprise Age	age	Time of establishment
GDP Growth Rate	gr	Year-on-Year GDP Growth Rate of the County (City) Where the Enterprise Is Located
Enterprise Per Capita Salary	Salary_p	Ratio of Enterprise Employee Wages to the Number of Enterprise Employees (Taken as a Logarithm)
Enterprise Per Capita Salary	Salary_p2	Ratio of Cash Paid to and for Employees to the Number of Employees in the Enterprise (Taken as a Logarithm)
Enterprise Output	OI	Enterprise Log Total Revenue
Absorb Investment	AI	Absorbing Cash Received from Investments
Monetary Capital Asset Ratio	Mf	Proportion of Corporate Monetary Funds to Total Assets
Receivables to Assets Ratio	Rec	Proportion of Corporate Receivables to Total Assets
Inventory-to-Asset Ratio	Stocks	Beginning Inventory + Cash Paid for Goods Purchased and Services Received - Ending Inventory
Intangible Assets Asset Ratio	IA	Total Proportion of Corporate Intangible Assets and Development Expenditures to Total Assets
Bank Credit Proportion	Loan	Bank Credit as a Proportion of Total Assets
Proportion of Short-Term Credit	s_Loan	Short-Term Bank Borrowings as a Proportion of Total Assets
Proportion of Long-Term Credit	l_Loan	Long-Term Bank Borrowings as a Proportion of Total Assets
Equity Investment Asset Ratio	M_f	Proportion of Corporate Long-Term Equity Investment in Total Assets
Retained Earnings	RE	Total Logarithmic Retained Earnings and Surplus Reserves of the Enterprise

screened after 1 % shrinking. The descriptive statistical results of SMEs and large and medium-sized enterprises are shown in Table 2.

4. Empirical analysis

4.1. Main test regression results

Table 3 displays the impact of the policy on the per-employee salary. The coefficient estimates are 0.1264 and 0.0876, respectively, all of which pass the significance test at the 1 % level. This indicates that, after fully considering other factors, the per-capita salary is 8.76 % higher than that of large and medium-sized enterprises. Thus, H1 is confirmed.

4.2. Parallel trend test

Following Jacobson et al.'s (1993) proposal for the event study method, we tested the dynamic effects of SMP to test the parallel trend assumption. This method can be expressed as

$$Salary\_p_{it} = \alpha_2 + \sum_{t=-5}^{5} \eta_t treated \times post_t + \theta_2 X_{it} + \gamma_i + \delta_i + \varepsilon_{it} \tag{7}$$

$treated \times post_t$ is a series of dummy variables, with $treated$ representing the experimental variables and $post_t$ representing the year dummy variable. This study focuses on the coefficient η_t, which reflects the difference in per-capita salary between SMEs and large and medium-sized enterprises in the t-th year of the implementation of the SMP for SMEs. We define $t = -1$ as the base year. Therefore, when $t \leq -2$, the parallel trend hypothesis is established if the statistics are not significant.

The results of the parallel trend test (Fig. 2) indicate that the coefficients η_t in each period before the implementation of the SMP are not significant. This demonstrates that there is no significant difference in enterprise salary growth between SMEs and large and medium-sized enterprises before the implementation of the policy, and the parallel trend test is passed.

4.3. Placebo test

To prevent the baseline regression results from being affected by unobservable omitted variables, we conducted a placebo test by randomizing the treatment groups. Following Cai et al. (2016), this study randomly selected 794 enterprises from the sample as the artificially set SME treatment group, and the remaining samples served as the control group. By repeating the above process 400 times, 400 regression coefficients and their corresponding *p*-values were obtained, and a placebo test chart was drawn, as shown in Fig. 3. As also shown in Fig. 3, the kernel density distribution and *p*-value of the 400 coefficient estimates fall near the 0 value and obey a normal distribution, and most of the regression results are not significant. The baseline regression coefficient estimate in the previous section is where the red dotted line is in the high tail of the spurious regression coefficient distribution, which is a small probability event in the

Table 2
Descriptive statistics.

VARIABLE	SMEs			LARGE AND MEDIUM-SIZED ENTERPRISES		
	OBSERVATIONS	MEAN	STANDARD DEVIATION	OBSERVATIONS	MEAN	STANDARD DEVIATION
s_loan	55,331	0.092	0.119	18,715	0.093	0.113
l_loan	55,331	0.013	0.048	18,715	0.014	0.044
cost	55,331	0.013	0.050	18,715	0.013	0.034
Salary_p	55,331	1.335	0.924	18,715	1.355	0.876
sz	55,331	8.070	1.147	18,715	8.748	1.292
roa	55,331	0.023	0.266	18,715	0.058	0.140
g	55,331	0.031	6.826	18,715	0.874	4.917
fix	55,331	0.154	0.155	18,715	0.158	0.155
dtr	55,331	0.424	0.439	18,715	0.473	0.233
cfo	55,331	0.023	0.188	18,715	0.034	0.193
gr	55,331	0.079	0.146	18,715	0.116	0.091

Table 3
The impact on per-capita salary in SMEs.

VARIABLES	(1)	(2)
Treat	0.1264***	0.0876***
	(0.0298)	(0.0303)
Sz		−0.106***
		(0.0170)
Roa		0.169*
		(0.0972)
G		−0.00110
		(0.00101)
Fix		−0.148**
		(0.0636)
Dtr		0.0599
		(0.0380)
Cfo		0.151***
		(0.0527)
Gr		0.0335*
		(0.0189)
Constant	11.24***	13.21***
	(0.022)	(0.313)
Individual Fixed Effects	YES	YES
Time Fixed Effects	YES	YES
Observations	71,454	71,454
R-squared	0.388	0.444

Note: *, **, and *** indicate significance levels of 10 %, 5 %, and 1 %, respectively.

placebo test. Based on this, it can be ruled out that the benchmark estimation results in this study were caused by unobservable factors.

4.4. Robustness check

The benchmark regression results indicate that the SMP for SMEs has further increased the relative per-capita salary of enterprises by improving their availability of credit. However, to eliminate the interference of confounding factors in research conclusions, a series of robustness tests are required. We conducted multiple analyses, such as sample data screening, dependent variable replacement, model replacement, policy intensity adjustment, propensity score matching and breakpoint testing to ensure the robustness of the estimation results. Table 4 presents the results.

4.4.1. Filter the sample data

To avoid the influence of extreme values on the benchmark regression results, the research samples were censored by 1 % and 5 %, according to the variables *Salary_p*, and then the regression of Eq. (6), was re-run. The estimation results are listed in columns 1 and 2 of Table 4. After excluding extreme values, the estimated coefficient *Salary_p* values passed the significance test at the 1 % level. This conclusion is consistent with the baseline estimation result.

4.4.2. Replace the dependent variable

To eliminate the impact of the selection of the dependent variable on the baseline regression results, the dependent variable was replaced by the employee salary divided by the number of employees, and then the logarithm was taken. Here, the employee salary comes from the "cash paid to and for employees" in the cash flow statement. We re-regressed Eq. (6) after replacing the dependent
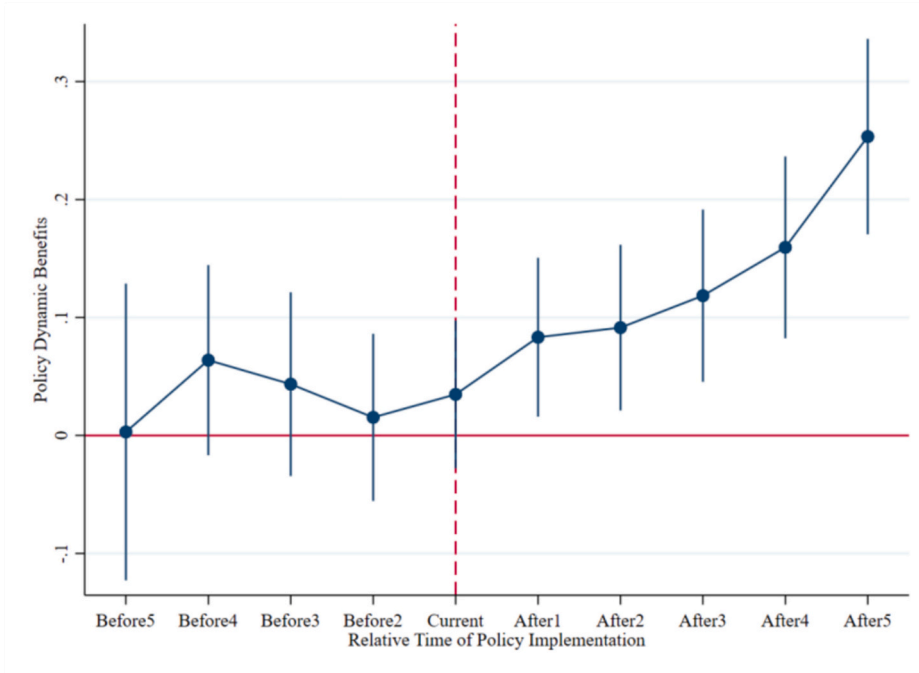
Fig. 2. Parallel trend test.
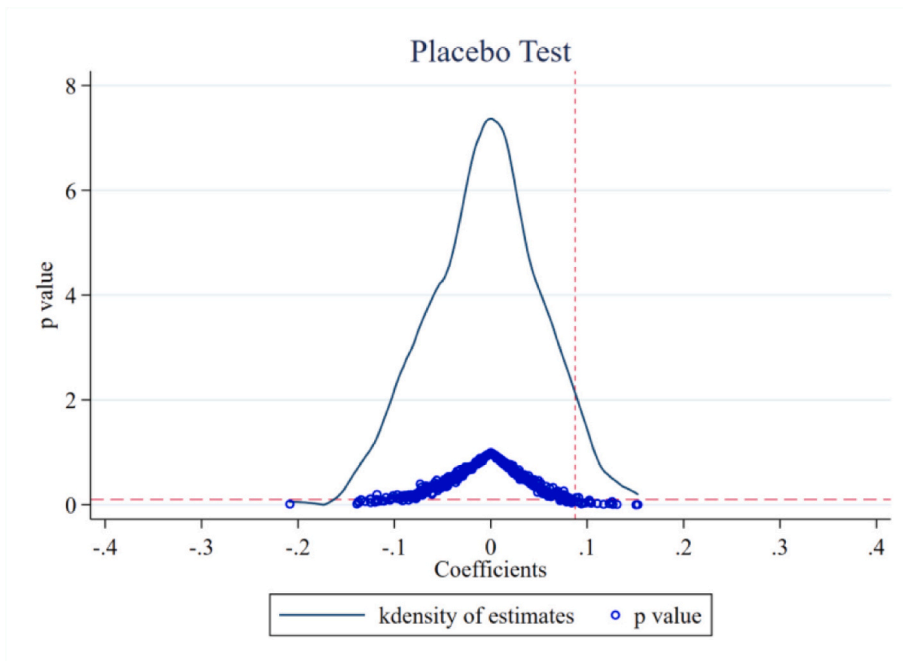
Fig. 3. Placebo test.

variable (results are listed in columns 3–4 of Table 4). Regardless of whether the control variables were added, the estimated coefficient value of *Salary_p2* passed the significance test at the 10 % and 1 % levels. This conclusion is similar to that of the baseline estimation results.

4.4.3. Change model

We used De Chaisemartin and d'Haultfoeuille's (2020) staggered DID method to recalculate the treatment effect. The results reveal

Table 4
Robustness test.

Robustness Test	Sample Data Filtering		Replace Dependent Variable		Adjust Policy Intensity		Propensity Score Matching		Adjust Processing Group Divisions	
VARIABLES	Salary_p_1 %	Salary_p_5 %	Salary_p2		Salary_p		Caliper nearest neighbor matching		Salary_p	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Treat	0.0898***	0.0681***	0.0354*	0.0695***	0.040***	0.039***	0.100***	0.0613**	0.117***	0.0772***
	(0.03)	(0.02)	(0.02)	(0.02)	(0.00)	(0.00)	(0.03)	(0.03)	(0.03)	(0.03)
Sz	−0.0796***	−0.0346***		0.100***		−0.1073***		−0.105***		−0.1121***
	(0.01)	(0.01)		(0.01)		(0.02)		(0.02)		(0.02)
Roa	0.151*	0.105		−0.0387**		0.107		0.176*		0.1029
	(0.09)	(0.07)		(0.02)		(0.07)		(0.10)		(0.07)
G	−0.000975	−0.000657		−0.000975**		−0.001		−0.00285*		−0.00128
	(0.00)	(0.00)		(0.00)		(0.00)		(0.00)		(0.00)
Fix	−0.125**	−0.114**		−0.0725***		−0.123**		−0.153**		−0.1223**
	(0.06)	(0.04)		(0.03)		(0.06)		(0.06)		(0.06)
Dtr	0.052	0.0359		−0.00756		0.015		0.055		0.0237
	(0.03)	(0.02)		(0.01)		(0.01)		(0.03)		(0.01)
Cfo	0.123**	0.0772**		−0.0966***		0.120***		0.146***		0.1440***
	(0.05)	(0.04)		(0.01)		(0.04)		(0.05)		(0.04)
Gr	0.0359**	0.0342**		−0.00188		0.02		0.0322		0.0214
	(0.02)	(0.01)		(0.01)		(0.03)		(0.02)		(0.03)
Constant	12.73***	11.94***	11.10***	9.250***	11.09***	13.084***	11.25***	13.19***	11.25***	13.35***
	(0.27)	(0.21)	(0.02)	(0.12)	(0.01)	(0.28)	(0.02)	(0.32)	(0.02)	(0.29)
Individual Fixed Effects	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Time Fixed Effects	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Observations	71,454	71,454	78,035	78,035	71,450	71,450	65,688	65,688	71,450	71,450
R-squared	0.465	0.517	0.817	0.821	0.453	0.456	0.438	0.442	0.392	0.395

Note: *, **, and *** indicate significance levels of 10 %, 5 %, and 1 %, respectively.

that the coefficient estimate of *Salary_p* is 0.1723 and passes the significance test at the 5 % level. That is, under the impact of the SMP for SMEs, the employee salary of SMEs increased by approximately 17 % compared to that of large and medium-sized enterprises.

4.4.4. Adjust policy intensity

Since the implementation of the SMP for SMEs in 2014, the frequency, magnitude, and conditions of the use of policy tools have been different each year. To avoid the basic return stage, the policy intensity after 2014 is regarded as 1. Assuming that there is a difference from the real situation, the policy intensity after 2014 was re-assigned.

Specifically, since the PBoC first proposed an SMP for SMEs in 2014, various policy tools have been continuously introduced and the number of commercial banks that have benefited has gradually increased (see Appendix A for details). Given the large differences in policy content and the specific measures of the PBoC for SMEs in various documents, it is impossible to simply use the extent of deposit reserve reduction or the current loan interest rate for SMEs as an indicator of policy intensity. Thus, this study uses the number of policy documents issued by the PBoC for SMEs as a variable to measure policy intensity; that is, the policy intensity is 1 in 2014, 2 in 2015 and 2016 (because there are no new documents), 3 in 2017, 6 in 2018, 9 in 2019, 12 in 2020, 15 in 2021, and 19 in 2022. After adjusting the policy intensity, we re-regressed Eq. (6), with the results listed in columns 5–6 of Table 4. Regardless of whether control variables are added, the coefficient estimates *Salary_p* pass the significance test at the 1 % level. This conclusion is similar to that of the baseline estimation results.

4.4.5. Propensity score matching DID

Endogeneity problems caused by reverse causation and sample selection bias are discussed below. As corporate employee compensation, as an explained variable, hardly affects the core explanatory variable of corporate credit financing, the endogeneity bias caused by reverse causality is substantially alleviated. Additionally, we used the propensity score matching-DID model to alleviate the endogeneity problem caused by sample selection bias and performed a robustness test (columns 7–8 of Table 4). We used the nearest-neighbor matching method. Regardless of whether control variables are added, the coefficient estimates that *Salary_p* passes the significance test at the 1 % and 5 % levels. This conclusion is similar to that of the baseline estimation results.

4.4.6. Adjust processing group divisions

To eliminate the impact of treatment group selection on the baseline regression results, the treatment group SMEs was determined as enterprises that met the small and micro standards for two consecutive years (after the policy occurs). After changing the treatment group, we regressed Eq. (6) again, and the results are shown in columns 9–10 of Table 4. Regardless of whether control variables are added, the coefficient estimates that *Salary_p* passes the significance test at the 1 % level. This conclusion is similar to that of the baseline estimation results.

4.4.7. Breakpoint testing

The series of SMP for SMEs are composed of policy shocks of different strengths, times, and methods (see Appendix A for details). To eliminate the bias in the coefficients of the staggered DID core explanatory variables due to the mixed shocks of strong and weak policies, this study referred to Eijffinger and Pieterse-Bloem (2023) for further breakpoint testing (Tables 5 and 6).[10]

The results show that the series of SMP have three main breakpoints, located in the fourth quarters of 2015, 2017, and 2020.[11] The policy corresponding to the first breakpoint is that the PBoC first classified and examined the existing and incremental loans by commercial banks to SMEs and gave differentiated reserve reduction policies (published in October 2015). Additionally, in the quarter corresponding to the second breakpoint, the PBoC implemented a targeted reduction in the reserve requirement ratio for inclusive finance for the first time, significantly increasing the coverage of inclusive finance for SMEs (released in September 2017). The third breakpoint is right after the first intensive policy release in 2020. Specifically, the PBoC has issued a series of documents since mid-2020 to increase special loans for SMEs to help them restore their production capacity during the COVID-19 pandemic (Yinfa [2020] No. 120, Yinfa [2020] No. 122, and Yinfa [2020] No. 123). The results of Table 6 show that before the second major breakpoint, the policy effect is not significant, but after the second major breakpoint, the policy promotes an increase of 11.1 % in relative employee wages. At the same time, after the third major breakpoint, the policy promotes an increase of 30.2 % in relative employee wages. The above conclusions are an important supplement to the baseline estimation results.

5. Mechanism inspection

To test the mechanism of the SMP affecting corporate employee compensation, we added adjustment variables to Model 6, which can be expressed as

$$Salary\_p_{it} = \alpha_3 + \beta_5 Treat_{it} + \zeta_3 Z_{it} + \lambda_3 Treat_{it} \times Z_{it} + \theta_3 X_{it} + \gamma_i + \delta_i + \epsilon_{it} \tag{8}$$

Z_{it} represents different variables in different mechanism testing paths, while the symbols and meanings of the remaining variables

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[10] Because breakpoint testing requires a balanced panel, the research period of this section is 2014–2021, with a sample size of 20,775 (1385 sample companies).
[11] The test statistics of each breakpoint are significantly higher than the critical value at all conventional significance levels (1 %, 5 %, and 10 %; Table 5), indicating that there are three breakpoints.

Table 5

Results from breakpoint test.

F-test	Test Statistic	Critical value		
		1 %	5 %	10 %
F(1|0)	192.89	7.68	5.74	4.91
F(2|1)	43.27	8.42	6.47	5.7
F(3|2)	13.18	8.86	7.01	6.14

Table 6

Breakpoint testing.

VARIABLES	(1)	(2)
Period1_policy_shock	0.079	0.072
	(0.05)	(0.06)
Period2_policy_shock	0.078	0.064
	(0.05)	(0.06)
Period3_policy_shock	0.122**	0.111**
	(0.05)	(0.05)
Period4_policy_shock	0.311***	0.302***
	(0.06)	(0.07)
Constant	11.319***	11.220***
	(0.04)	(0.50)
Controls	NO	YES
Individual Fixed Effects	YES	YES
Time Fixed Effects	YES	YES
Observations	20,775	20,775
$\widehat{b_1}$(95 % CI)	2015q4 [2015q2,2016q2]	
$\widehat{b_2}$(95 % CI)	2017q4 [2017q2,2018q2]	
$\widehat{b_3}$(95 % CI)	2020q4 [2020q2,2021q2]	

Note: *, **, and *** indicate significance levels of 10 %, 5 %, and 1 %, respectively.

are the same as in Model 6. The results are presented in Table 7.

5.1. Output transmission mechanism

According to previous theoretical analysis, SMP may affect relative wage growth through the output effect. To verify this mechanism, direct and indirect outputs were divided and further explored. For the verification of direct output, the operating income directly related to the current enterprise output was used to represent the enterprise's output, and the proportion of inventory was used to represent the enterprise's future production reserves; for the verification of indirect output, the equity investment and intangible assets were used. Table 7, columns 1–4 show the estimated impact of this policy on firm output.

They show that the coefficient estimates of *Treat_OI*, *Treat_Stocks*, *Treat_M_f*, and *Treat_IA* are −0.0975, −0.0446, 0.0290, and 0.0116, respectively, which correspond to passing the significance test at the 1 %, 1 %, 10 %, and 10 % levels, respectively. The above results show that the direct output effect of enterprises (current output and inventory reserves) crowds out the relative growth of employee wages under the policy, whereas an increase in corporate financial investment and R&D investment (indirect output effect) increases the relative growth of employee wages. In other words, after obtaining credit funds, SMEs often increase current production and inventory reserves to ensure the reproduction of goods in the future, but this crowds out the relative increase in employee wages. Therefore, H2.1 is proved. Additionally, when SMEs use the obtained credit funds to invest, they may need to fully mobilize employees' enthusiasm (Kong et al., 2020), which will also have a positive impact on employee welfare. Therefore, H2.2 is proved.

5.2. Employment transmission mechanism

SMP may affect relative employee wages through employment effects. Column 5 of Table 7 presents the estimated impact of this policy on corporate employment. The results show that the coefficient estimate is −0.0124, which fails in the significance test. H3 is rejected.

5.3. Interest rate transmission mechanism

SMP may affect employee compensation through interest rate effects. Column 6 in Table 7 presents the estimated impact of this policy on corporate interest rates. The results show that the coefficient estimate of *Treat_Cost* is −0.861, passing the significance test at the 5 % level. This shows that under SMP, the higher the interest burden on SMEs, the more it inhibits the increase in employee wages. A reduction in interest rates has a positive impact on the relative wage growth of employees in SMEs. Therefore, H4 is accepted.

Table 7
Mechanism inspection.

VARIABLES	OUTPUT				EMPLOYMENT	INTERES RATES	FINANCING						
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
	Output	Stock	Equity Investment	Intangible Assets	Employment	Interest Rates	Credit	Short-Term Credit	Long-Term Credit	Absorb Investment	Money Funds	Accounts Receivable	Retained Earnings
Treat	1.813*** (0.20)	0.879*** (0.17)	−0.36 (0.24)	−0.0648 (0.11)	−0.0715 (0.14)	0.0992*** (0.03)	0.0563* (0.03)	0.0756** (0.03)	0.0824*** (0.03)	0.405*** (0.13)	0.132*** (0.03)	0.168*** (0.04)	−1.027*** (0.15)
OI	0.0620*** (0.02)												
Treat_OI	−0.0975*** (0.01)												
Stocks		0.0274*** (0.01)											
Treat_Stocks		−0.0446*** (0.01)											
M_f			−0.00736 (0.01)										
Treat_M_f			0.0290* (0.02)										
IA				−0.0143** (0.01)									
Treat_IA				0.0116* (0.01)									
Labor					−0.529*** (0.03)								
Treat_Labor					−0.0124 (0.03)								
Cost						0.958** (0.39)							
Treat_Cost						−0.861** (0.39)							
Loan							−0.01311 (0.10)						
Treat_Loan							0.3404* (0.11)						
s_Loan								−0.0518 (0.11)					
Treat_s_Loan								0.146 (0.12)					
l_Loan									−0.363 (0.26)				
Treat_l_Loan									0.516* (0.29)				
AI										0.00998* (0.01)			
Treat_AI										−0.0145** (0.01)			
Mf											0.246***		

(*continued on next page*)

Table 7 (*continued*)

VARIABLES	OUTPUT				EMPLOYMENT	INTEREST RATES	FINANCING						
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
	Output	Stock	Equity Investment	Intangible Assets	Employment	Interest Rates	Credit	Short-Term Credit	Long-Term Credit	Absorb Investment	Money Funds	Accounts Receivable	Retained Earnings
Treat_Mf											(0.07) −0.326*** (0.07)		
Rec												0.188*** (0.07)	
Treat_Rec												−0.324*** (0.08)	
RE													−0.0398*** (0.01)
Treat_RE													0.0681*** (0.01)
Constant	11.70*** (0.34)	12.82*** (0.35)	14.81*** (0.79)	13.12*** (0.34)	10.76*** (0.31)	13.16*** (0.31)	13.28*** (0.31)	13.20*** (0.31)	13.19*** (0.31)	10.65*** (0.55)	13.15*** (0.31)	12.81*** (0.31)	12.01*** (0.38)
Controls	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Individual Fixed Effects	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Time Fixed Effects	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Observations	71,171	63,762	11,601	58,480	71,454	71,171	71,171	71,171	71,171	14,740	70,520	69,706	54,848
R-squared	0.439	0.453	0.552	0.455	0.467	0.438	0.392	0.438	0.438	0.623	0.439	0.448	0.501

Note: *, **, and *** indicate significance levels of 10 %, 5 %, and 1 %, respectively.

Table 8
Heterogeneity analysis.

	ENTERPRISE HETEROGENEITY ANALYSIS								INDUSTRY HETEROGENEITY ANALYSIS		REGIONAL HETEROGENEITY ANALYSIS	
VARIABLES	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
	Ownership	Ages	Asset Sizes	Output	Intangible Assets	Credit Financing Costs	Borrowing	Retained Earnings	Technology Enterprise Certification	Highly Skilled Labor Intensity	Factor Market Development	Marketization Index
Treat_H	−0.0461	0.0823**	0.0837**	0.0487	0.110***	0.0705*	0.062	0.0738**	0.0946***	0.1219***	0.0950***	0.0848***
	(0.07)	(0.03)	(0.04)	(0.04)	(0.04)	(0.04)	(0.04)	(0.04)	(0.03)	(0.04)	(0.03)	(0.03)
Treat_L	0.0959***	0.106	0.180***	0.127***	0.0639	0.106**	0.113***	0.108**	0.0731	0.0514	0.0195	0.1432
	(0.03)	(0.07)	(0.05)	(0.04)	(0.04)	(0.04)	(0.04)	(0.05)	(0.05)	(0.04)	(0.07)	(0.11)
sz	−0.106***	−0.106***		−0.105***	−0.106***	−0.106***	−0.105***	−0.106***	−0.106***	−0.106***	−0.106***	−0.106***
	(0.02)	(0.02)		(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)
roa	0.169*	0.169*	0.160*	0.169*	0.169*	0.169*	0.169*	0.169*	0.169*	0.169*	0.169*	0.169*
	(0.10)	(0.10)	(0.09)	(0.10)	(0.10)	(0.10)	(0.10)	(0.10)	(0.10)	(0.10)	(0.10)	(0.10)
g	−0.0011	−0.0011	−0.00106	−0.0011	−0.0011	−0.00109	−0.0011	−0.0011	−0.0011	−0.0011	−0.0011	−0.0011
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
fix	−0.147**	−0.147**	−0.0995	−0.147**	−0.148**	−0.148**	−0.148**	−0.147**	−0.148**	−0.147**	−0.147**	−0.147**
	(0.06)	(0.06)	(0.06)	(0.06)	(0.06)	(0.06)	(0.06)	(0.06)	(0.06)	(0.06)	(0.06)	(0.06)
dtr	0.0597	0.0598	0.0694*	0.0592	0.0599	0.06	0.0592	0.0596	0.0599	0.0595	0.0599	0.0599
	(0.04)	(0.04)	(0.04)	(0.04)	(0.04)	(0.04)	(0.04)	(0.04)	(0.04)	(0.04)	(0.04)	(0.04)
cfo	0.151***	0.151***	0.151***	0.150***	0.151***	0.151***	0.151***	0.151***	0.151***	0.151***	0.151***	0.151***
	(0.05)	(0.05)	(0.05)	(0.05)	(0.05)	(0.05)	(0.05)	(0.05)	(0.05)	(0.05)	(0.05)	(0.05)
gr	0.0335*	0.0335*	0.0327*	0.0335*	0.0334*	0.0335*	0.0335*	0.0335*	0.0334*	0.0335*	0.0335*	0.0335*
	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)
Constant	13.21***	13.21***	11.21***	13.20***	13.21***	13.21***	13.21***	13.20***	13.21***	13.22***	13.21***	13.21***
	(0.31)	(0.31)	(0.03)	(0.31)	(0.31)	(0.31)	(0.31)	(0.31)	(0.31)	(0.31)	(0.31)	(0.31)
Individual Fixed Effects	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Time Fixed Effects	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Observations	71,454	71,454	71,454	71,454	71,454	71,454	71,454	71,454	71,454	71,454	71,454	71,454
R-squared	0.444	0.444	0.442	0.444	0.444	0.444	0.444	0.444	0.444	0.444	0.444	0.444

Note: *, **, and *** indicate significance levels of 10 %, 5 %, and 1 %, respectively.

5.4. Financing transmission mechanism

SMP may affect relative employee compensation through financing. Because differences in corporate liquidity needs lead to large differences in financing methods, this article examined the financing effect through the impact of external financing and internal financing on employee salary decisions in SMEs. The impact of this policy on corporate financing is shown in columns 7–13 of Table 7.

Columns 7–10 present the moderating effects of credit availability, short-term credit availability, long-term credit availability, and absorbed investment on relative employee compensation. The results show that the coefficient estimates of *Treat_Loan*, *Treat_s_Loan*, *Treat_l_Loan*, and *Treat_AI* are 0.3404, 0.146, 0.516, and − 0.0145, respectively. Except for *Treat_s_Loan*, the other three items passed the significance test at the 10 %, 10 %, and 5 % levels, respectively. The results show that when SMEs must meet liquidity needs by absorbing investment in the form of diluting equity, the increase in investment will squeeze out the growth of employee wages. When enterprises finance through debt, such as increased credit availability, especially increased long-term credit availability, the increase in debt financing can positively affect relative employee wages. The results show that for SMEs, the increase in long-term credit alleviates corporate financing "anxiety" and thus promotes employee wage growth. Therefore, H5.1 is confirmed.

Columns 11–13 of Table 7 list the moderating effects of the proportion of monetary funds, proportion of accounts receivable, and retained earnings on relative employee salaries. The estimated coefficient values of *Treat_Mf*, *Treat_Rec*, and *Treat_RE* were − 0.326, −0.324, and 0.0681, respectively, all passing the significance test at the 1 % level. It can be seen from the results that the increase in the proportion of self-owned monetary funds and accounts receivable in total assets have suppressed the increase in comparative employee wages. A higher proportion of monetary funds indicates that the enterprise may follow a more conservative financial strategy, while an excessively high proportion of accounts receivable indicates that the enterprise is at a certain disadvantage compared with the downstream industry. Because the enterprise cannot sell goods immediately and obtain cash payment, it can only maintain or improve sales capabilities by continuously increasing the commercial credit issued. Therefore, compared with large and medium-sized enterprises, the conservative financial strategy and their disadvantaged position when facing downstream further inhibit the increase in comparative employee wages. Additionally, the company's retained earnings, as funds retained after the company's profit, provide interest-free funds for its subsequent continued production and operations. The existence of this fund relieves the financing pressure on SMEs, thereby actively promoting an increase in comparative employee wages. Therefore H5.2 is confirmed.

Based on the analysis of the results of the above four mechanisms, we find that the output, interest rates, and financing transmission mechanism play a regulatory role in the impact of SMP on relative employee wages. More specifically, since it is more difficult for SMEs to obtain bank credit than large and medium-sized enterprises, after experiencing SMP, the process of increasing relative employee wages is affected by the behavior in maintaining corporate survival. For example, the need for SMEs to increase current output, reserve future inventories, increase external equity financing, and maintain liquidity needs has inhibited the growth of relative employee wages, while the need for financial investment, investment in R&D, increases in long-term borrowings, and increases in retained earnings have increased the growth in relative employee wages.

6. Heterogeneity analysis

This study divided heterogeneity analysis into three perspectives: enterprise, industry, and region, aiming to further analyze the impact of SMP on corporate employee compensation. Additionally, this study referred to Restrepo et al. (2019) for further analysis and added additional interaction terms to Model 6:

$$Salary\_p_{it} = \alpha_4 + \lambda_4 Treat_{it} \times [W\_High = 1] + \lambda_5 Treat_{it} \times [W\_Low = 0] + \theta_4 X_{it} + \gamma_i + \delta_i + \epsilon_{it} \tag{9}$$

W_High and *W_Low* represent the two groups with higher and lower median values of a certain heterogeneity factor, respectively; the symbols and meanings of the remaining variables are the same as in Eq. (6). Table 8 presents the results.

6.1. Enterprise heterogeneity analysis

In order to analyze enterprise heterogeneity, this study selected enterprise ownership, establishment time, scale, and the variables involved in the mechanism analysis[12] for analysis sequentially.

6.1.1. Impact on enterprises with different ownership

According to the ownership type of the enterprise, we performed regression on the sample data of state-owned enterprises and private enterprises according to Eq. (9), and the results are presented in column 1 of Table 8. *Treat_H* and *Treat_L* represent the coefficient estimates of state-owned and private enterprises under the effect of this policy, respectively. Among them, only *Treat_L* passed the significance test at the 1 % level, which shows that SMP can significantly promote the improvement of employee welfare in private enterprises. One possible reason is that state-owned enterprises have a natural advantage in obtaining bank credit. The results also show that this policy improves the treatment of employees in private enterprises and promotes the common prosperity of employees in enterprises with different ownership types.

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[12] This section selected output, R&D, credit financing costs, bank loans and retained earnings as proxy variables for direct output, indirect output, interest rates, external financing and internal financing, respectively.

6.1.2. Impact on businesses of different ages

We used the median company establishment age of 15 years as the dividing line, divided the entire sample into two groups of samples with establishment times greater than or equal to 15 years and less than 15 years, and then performed a regression (column 2 in Table 8). The estimated coefficient values of *Treat_H* and *Treat_L* are 0.0823 and 0.106, respectively. Only enterprises established for 15 years or more passed the significance test at the 5 % level. A possible reason for this result is that SMEs established earlier may have borrowed money from employees in the past by deferring salary payments to meet liquidity requirements when they experience difficulty obtaining external credit. After the SMP, employees were more inclined to increase employee wages to compensate for past unpaid employee wages.

6.1.3. Impact on different enterprise asset sizes

This study used the median asset size of the sample enterprises as the dividing line to divide the entire sample into enterprises with higher asset and lower asset scales; it then performed regression (column 3 of Table 8). The estimated coefficient values of *Treat_H* and *Treat_L* were 0.0837 and 0.180, respectively, passing the significance test at the 5 % and 1 % levels. This shows that the impact of the SMP on the relative employee wages of enterprises of different sizes is small.

6.1.4. Impact on the output of different enterprises

This study used the median output of the sample enterprises as the dividing line to divide the entire sample into enterprises with higher output and lower output and then conducted a regression (column 4 of Table 8). The estimated coefficient values of *Treat_H* and *Treat_L* were 0.0487 and 0.127, respectively, and only *Treat_L* passed the significance test at the 1 % level. This conclusion is slightly different from the conclusion in 5.1, indicating that there is a large differentiation in the impact of differences in output levels within SMEs on employee wages. A possible reason is that before the implementation of the policy, low-output SMEs faced deeper financial constraints on output. Therefore, after being stimulated by liquidity, they increased their output more significantly than enterprises with higher output levels. This was followed by a rapid increase in production activities, which may involve raising wages to attract new employees, and thus was accompanied by a recovery in employee compensation.

6.1.5. Impact on investment in different intangible assets

This study used the median investment in intangible assets of the sample enterprises as the dividing line to divide the entire sample into two groups: high-investment and low-investment enterprises (column 5 of Table 8). The results demonstrate that the estimated coefficient values of *Treat_H* and *Treat_L* were 0.110 and 0.0639, respectively, and only *Treat_H* passed the significance test at the 1 % level. This shows that for companies that prefer to invest in intangible assets, SMP promotes relative employee wage growth more clearly. One possible reason is that companies with high investments in intangible assets have always attached great importance to R&D. Therefore, after the introduction of the policy, they are more inclined to significantly increase the wages of R&D-related employees to stimulate R&D output, which, in turn, is reflected in a substantial increase in the wages of corporate employees. This result further confirms H2.2.

6.1.6. Impact on different credit financing costs

This study used the median credit financing cost of sample enterprises as the dividing line to divide the entire sample into enterprises with high-credit financing costs and low-credit financing costs (column 6 of Table 8). The results show that the estimated coefficient values of *Treat_H* and *Treat_L* are 0.0705 and 0.106, respectively, passing the significance test at the 10 % and 5 % levels. The results demonstrate that the SMP has little impact on the relative employee wages of companies with different credit financing costs. This result further confirms H4.

6.1.7. Impact on different borrowing levels

This study used the median of borrowing availability of sample enterprises as the dividing line to divide the entire groups into two samples with strong and weak borrowing capabilities (column 7 of Table 8). The estimated coefficient value of *Treat_L* is 0.113, passing the significance test at the 1 % level, whereas the sample group with strong borrowing ability failed to pass the significance test. This result shows that SMP has a more significant impact on SMEs with weak borrowing capabilities.

6.1.8. Impact on different retained earnings

This study used the median retained earnings of the sample companies as the dividing line to divide the entire sample into two groups (column 8 of Table 8). The estimated coefficient values of *Treat_H* and *Treat_L* are 0.0738 and 0.108, respectively, both of which pass the significance test at the 5 % level. This result shows that the impact of the SMP on the relative employee wages of enterprises with different retained earnings scales is less obvious.

6.2. Industry heterogeneity analysis

For the purpose of further analyzing industry heterogeneity, this study selected technology enterprise certification and high-skilled

labor intensity for analysis respectively.

6.2.1. Impact on different technology enterprise certification

This study used the high-tech industry classification[13] and divided the entire sample into two groups (column 9 of Table 8). The estimated coefficient value of *Treat_H* is 0.095, passing the significance test at the 1 % level, whereas the sample group with low-tech industries failed to pass the significance test. This result shows that SMP has a more significant impact on SMEs with high-tech industries.

6.2.2. Impact on different highly skilled labor intensity

This study used the high-skilled labor intensity[14] and divided the entire sample into two groups (column 10 of Table 8). The estimated coefficient value of *Treat_H* is 0.122, passing the significance test at the 1 % level, whereas the sample group with lower high-skilled labor intensity failed to pass the significance test. This result shows that SMP has a more significant impact on SMEs with higher high-skilled labor intensity.

The above conclusions show that the effectiveness of the SMP is focused on high-tech industries or industries with a high density of high-skilled labor. Therefore, it can be further inferred that the promoting effect of SMP on employee wages is based on the wage increase of high-skilled employees accompanying the transformation of enterprises to high-tech.

6.3. Regional heterogeneity analysis

The marketization levels of different regions in China vary greatly, and the economic foundations and resource endowments of different regions are also different, which may lead to large differences in capital, human capital, technological innovation, etc. among enterprises in different regions. Regarding this, regional heterogeneity analysis conducted group tests from two aspects: the factor market development index and the marketization index.

6.3.1. Impact on different factor market development index

This study used the factor market development index[15] and divided the entire sample into two groups (column 11 of Table 8). The estimated coefficient value of *Treat_H* is 0.095, passing the significance test at the 1 % level, whereas the sample group with lower developed factor markets failed to pass the significance test. This shows that SMP has a more significant impact on SMEs in regions with a higher level of factor market development.

6.3.2. Impact on different marketization index

This study used the marketization index[16] and divided the entire sample into two groups (column 12 of Table 8). The estimated coefficient value of *Treat_H* is 0.085, passing the significance test at the 1 % level, whereas the sample group with lower marketization level failed to pass the significance test. This shows that the level of marketization is an important factor in the effective implementation of SMP.

The above heterogeneity analysis results show that from the perspective of enterprise heterogeneity, this policy has a more obvious promoting effect on the wages of enterprises with private enterprises, earlier establishment time, lower output level, higher R&D investment, and lower financing capacity. From the perspective of industrial heterogeneity, SMP can only play a more positive role in high-skilled industries and industries with a high intensity of high-skilled labor. Similarly, from the perspective of regional heterogeneity, SMP can only play a more positive role in regions with a higher level of factor development and a higher degree of marketization.

7. Conclusions

This study used data from NEEQ-listed companies from 2010 to 2022 to explore the differences in employee salary growth between SMEs and larger medium-sized enterprises due to SMP. Additionally, this study used the output, employment, interest rates, and financing transmission mechanisms as a framework to explore the mechanisms that affect this difference. The following conclusions were drawn.

First, SMP significantly increases relative wages, while output, interest rates, and financing transmission mechanisms mediate this

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[13] This paper referred to the "Classification of High-tech Industries (Manufacturing) (2017)" and "Classification of High-tech Industries (Service Industries) (2018)" issued by the National Bureau of Statistics of China, and divided industries into high-tech industries and low-tech industries.

[14] Referring to the approach of Lin et al. (2023), this paper calculated the proportion of high-skilled labor in each industry, and divided the industry into industries with a high proportion of high-skilled labor and industries with a low proportion according to the median. Industries with low high-skilled labor intensity include agriculture, forestry, animal husbandry, fishery, resident services, repair and other service industries, accommodation and catering, construction, manufacturing and mining; the remaining industries are industries with higher high-skilled labor intensity.

[15] Based on the ranking of the factor market development index published in the "China Provincial Marketization Index Report (2019)" released by Wang et al. (2020), this paper divided the samples into two groups: regions with high factor market development and regions with low factor market development.

[16] This article used the marketing index of "China Provincial Marketization Index Report (2019)" released by Wang et al. (2020).

effect. Second, after experiencing SMP, the corporate behavior of SMEs to increase current output, reserve future inventories, increase external equity financing, and prefer liquidity needs suppresses the growth of relative employee wages. In contrast, SMEs with expanded financial investment, increased R&D investment, increased long-term borrowing, and higher retained earnings have increased the growth of relative employee wages. Finally, the relative salary growth of SMEs with characteristics such as private ownership, early establishment, low output, high R&D investment, low borrowing levels, belonging to high-tech industries, and high level of regional marketization is more profoundly affected by SMP.

CRediT authorship contribution statement

Wanshan Wu: Validation, Supervision, Project administration, Funding acquisition. **Lumin Jin:** Software, Methodology, Formal analysis, Data curation. **Chang-Chih Chen:** Resources, Project administration, Formal analysis, Conceptualization. **Jianchun Fang:** Writing – original draft, Visualization, Validation, Formal analysis. **Cheng Yan:** Writing – review & editing, Validation, Supervision, Resources, Investigation.

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Appendix A. Structural monetary policy for SMEs

In order to resolve the phenomenon that it is difficult for aggregate monetary policy tools to pass on released funds and lower interest rates to SMEs, the SMP for SMEs combines "quantity" supply and "price" concessions at the same time. Directly linked to the proportion or quantity of credit provided by financial institutions to SMEs to establish a positive incentive mechanism for credit structure optimization. Since 2014, the PBoC has repeatedly used long-term tools and periodic tools of SMP for SMEs (as shown in Table I-1). The main means include supporting small re-lending, small and micro loans supporting tools and other operations.

Appendix I
Overview of structural monetary policies for SMEs (2014–2022).

POLICY DOCUMENTS	POLICY CONTENT		SPECIFIC MEASURE
In June 2014, the PBoC issued the "Notice of the People's Bank of China on Targeted Lowering of Deposit Reserve Ratios for Some Financial Institutions" (Yinfa [2014] No. 164)	State-Owned Commercial Banks, Joint-Stock Commercial Banks, Postal Savings Bank of China, City Commercial Banks, Non-County Rural Commercial Banks, Non-County Rural Cooperative Banks, Foreign Financial Institutions, Finance Companies, Financial Leasing Companies and Automobile Finance Companies	Meet prudent operating requirements and the increase in RMB small and micro enterprise loans (including personal operating loans) last year accounted for more than 50 % of all new RMB loans, and the balance of RMB small and micro enterprise loans (including personal operating loans) at the end of the previous year accounted for all the proportion of RMB loan balance exceeds 30 %	Reduce the RMB deposit reserve ratio by 0.5 %
	Agricultural Development Bank of China		Reduce the RMB deposit reserve ratio by 1.0 %
In October 2015, the PBoC issued the "Notice of the People's Bank of China on Lowering the Deposit Reserve Ratio of Financial Institutions" (Yinfa [2015] No. 327)	Industrial And Commercial Bank of China, Agricultural Bank of China, Bank of China, China Construction Bank, Bank of Communications	Meets prudent operating requirements and the incremental loan amount for small and micro enterprises reaches 15 %, but the stock and incremental amount do not reach 30 % and 50 %	Reduce the RMB deposit reserve ratio by 1.0 %
		Meet the requirements for prudent operation and reach a certain proportion of small and micro enterprise loans (the existing amount reaches 30 % and the incremental amount reaches 50 %)	Reduce the RMB deposit reserve ratio by 1.0 %

Appendix I (*continued*)

POLICY DOCUMENTS	POLICY CONTENT			SPECIFIC MEASURE
		Joint-Stock Commercial Banks, City Commercial Banks, Non-County Rural Commercial Banks, Foreign-Funded Banks	Meets prudent operating requirements and the incremental loan amount for small and micro enterprises reaches 15 %, but the stock and incremental amount do not reach 30 % and 50 %	Reduce the RMB deposit reserve ratio by 1.0 %
			Meet the requirements for prudent operation and reach a certain proportion of small and micro enterprise loans (the existing amount reaches 30 % and the incremental amount reaches 50 %)	Reduce the RMB deposit reserve ratio by 1.0 %
		County Rural Commercial Bank	Comply with a certain deposit ratio for local policies	Reduce the RMB deposit reserve ratio by 1.0 %
		Rural Cooperative Banks, Rural Credit Cooperatives, Village Banks	Comply with a certain deposit ratio for local policies	Reduce the RMB deposit reserve ratio by 1.0 %
		China Postal Savings Bank		Reduce the RMB deposit reserve ratio by 1.0 %
		Finance Companies, Financial Leasing Companies, Auto Finance Companies		Reduce the RMB deposit reserve ratio by 0.5 %
In September 2017, the PBoC issued the "Notice of the People's Bank of China on Implementing Targeted Reserve Bank Reductions for Inclusive Finance" (Yinfa [2017] No. 222)	Inclusive scope: small business loans with a single household credit limit of less than 5 million yuan, micro enterprise loans with a single household credit limit of less than 5 million yuan, operating loans for individual industrial and commercial households, and operating loans for small and micro business owners	State-Owned Commercial Banks, Postal Savings Bank of China, Joint-Stock Commercial Banks, City Commercial Banks, Non-County Rural Commercial Banks and Foreign Banks	Comply with macro-prudential operating standards and the incremental loans in the inclusive finance sector accounted for 1.5 % of all new RMB loans in the previous year, or the loan balance in the inclusive finance sector accounted for 1.5 % of all RMB loan balances at the end of the previous year	Reduce the RMB deposit reserve ratio by 0.5 %
			Comply with macro-prudential operating standards and the incremental loans in the inclusive finance sector accounted for 10 % of all new RMB loans in the previous year, or the loan balance in the inclusive finance sector accounted for 10 % of all RMB loan balances at the end of the previous year	Reduce the RMB deposit reserve ratio by 1.5 %
		County Rural Commercial Banks, Rural Cooperative Banks, Rural Credit Cooperatives, Village and Town Banks	Comply with a certain deposit ratio for local policies	Reduce the RMB deposit reserve ratio by 1.0 %
In April 2018, the PBoC issued the "Notice of the People's Bank of China on lowering the deposit reserve ratio of some financial institutions in exchange for medium-term lending facilities" (Yinfa [2018] No. 94)	State-Owned Commercial Banks, Joint-Stock Commercial Banks, City Commercial Banks, Non-County Rural Commercial Banks, Foreign Banks and Postal Savings Bank of China			Reduce the RMB deposit reserve ratio by 1.0 %
In June 2018, the PBoC and other departments jointly issued the "Opinions on Further Deepening Financial Services for Small and Micro Enterprises" (Yinfa [2018] No. 162)	Increase monetary policy support and guide financial institutions to increase credit extension to small and micro enterprises			Lowers small-scale refinancing interest rate by 0.5 %
	Increase support from preferential fiscal and taxation policies			Interest income from small and micro enterprise loans is exempt from VAT

Appendix I (*continued*)

POLICY DOCUMENTS	POLICY CONTENT	SPECIFIC MEASURE
In October 2018, the PBoC issued the "Notice of the People's Bank of China on Lowering the Deposit Reserve Ratios of Some Financial Institutions" (Yinfa [2018] No. 231)	State-Owned Commercial Banks, Joint-Stock Commercial Banks, City Commercial Banks, Non-County Rural Commercial Banks, Foreign Banks and Postal Savings Bank of China	Reduce the RMB deposit reserve ratio by 1.0 %
In January 2019, the PBoC issued the "Notice of the People's Bank of China on Lowering the Deposit Reserve Ratio of Financial Institutions" (Yinfa [2019] No. 4)	Reduce the RMB deposit reserve ratio for financial institutions and replace some medium-term lending facilities	Reduce the RMB deposit reserve ratio by 1.0 %
In May 2019, the PBoC issued the "Notice of the People's Bank of China on Lowering the RMB Deposit Reserve Ratio for Rural Commercial Banks Serving County Areas" (Yinfa [2019] No. 127)	Starting from May 15, 2019, the RMB deposit reserve ratio of rural commercial banks serving counties will be lowered to the level of rural credit cooperatives.	Reduce the RMB deposit reserve ratio by 1.0 %
	Starting from June 17, 2019, the RMB deposit reserve ratio of rural commercial banks serving counties will be lowered to the level of rural credit cooperatives.	Reduce the RMB deposit reserve ratio by 1.0 %
	Starting from July 15, 2019, the benchmark RMB deposit reserve ratio for rural commercial banks serving counties will be lowered.	Adjust to 8 %
In September 2019, the PBoC issued the "Notice of the People's Bank of China on Lowering the Deposit Reserve Ratio of Financial Institutions" (Yinfa [2019] No. 223)	Starting from September 16, 2019, the RMB deposit reserve ratio for financial institutions will be reduced.	Reduce the RMB deposit reserve ratio by 0.5 %
	Starting from October 15, 2019, the RMB deposit reserve ratio for urban commercial banks operating only within the provincial administrative region will be reduced.	Reduce the RMB deposit reserve ratio by 0.5 %
	Starting from November 15, 2019, the RMB deposit reserve ratio for urban commercial banks operating only within the provincial administrative region will be reduced.	Reduce the RMB deposit reserve ratio by 0.5 %
In May 2020, the PBoC and other departments jointly issued the "Guiding Opinions on Further Strengthening Financial Services for Small, Medium and Micro Enterprises" (Yinfa [2020] No. 120)	Inclusive small and micro enterprise loans from five large state-owned commercial banks	Growth rate higher than 40 %
	Before the end of June 2020, development and policy banks will implement special credit Support financial institutions in issuing special financial bonds for small and micro enterprises	The quota is 350 billion yuan 300 billion yuan
	Promote accounts receivable financing for small, medium and micro enterprises	800 billion yuan
In June 2020, the PBoC and other departments jointly issued the "Notice on Further Implementing Phased Delays in Principal and Interest Payments for Loans to Small, Medium and Micro Enterprises" (Yinfa [2020] No. 122)	For inclusive small and micro loans due between June 1 and December 31, 2020 (including small and micro enterprise loans with a single-household credit limit of 10 million yuan and below, operating loans for individual industrial and commercial households and small and micro enterprise owners)	Implementing phased deferral of principal and interest payments
	If local corporate banks grant inclusive small and micro businesses a deferral of principal repayment	Give the bank 1 % of the principal of inclusive small and micro loans as an incentive
In June 2020, the PBoC and other departments jointly issued the "Notice on Increasing Credit Loan Support for Small and Micro Enterprises" (Yinfa [2020] No. 123)	Starting from June 1, 2020, the PBoC will purchase qualified local corporate banking financial institutions (urban commercial banks, rural commercial banks, rural cooperative banks, villages and towns with the latest central bank ratings from 1 to 5) on a quarterly basis through monetary policy tools. Banks, rural credit cooperatives, private banks) 40 % of the newly issued inclusive small and micro credit loans between March 1 and December 31, 2020, with a loan term of not less than 6 months	400 billion yuan special quota for re-lending
In March 2021, the PBoC and other departments jointly issued the "Notice on Further Extending the Implementation Period of the Deferred Principal and Interest Payment Policy and Credit Loan Support Policy for Inclusive Small and Micro Enterprise Loans" (Yinfa [2021] No. 81)	The policy of deferred principal and interest payment for inclusive small and micro enterprise loans has been extended to December 31, 2021. For inclusive small and micro enterprise loans with an extension period of not less than 6 months by local corporate banking financial institutions such as urban commercial banks, rural commercial banks, rural cooperative banks, village banks, rural credit cooperatives, and private banks	Incentives will be given based on 1 % of the deferred loan principal
	The inclusive credit loan support policy for small and micro enterprises has been extended to December 31, 2021. For the newly issued inclusive small and micro enterprise credit loans by local corporate banking financial institutions rated 1–5 by the latest central bank (loans newly issued between April 1 and December 31, 2021 with a term of not less than 6 months), the PBoC continues to provide preferential financial support through monetary policy tools	The support ratio is 40 % of the loan principal
In June 2021, the PBoC and other departments jointly issued the "Notice on Reducing Payment Handling Fees for Small and Micro Enterprises and Individual Industrial and	Commercial banks will give preferential treatment to small and micro enterprises and individual industrial and commercial households for corporate inter-bank transfers and remittances of less than 100,000 yuan through counter channels.	10 % off
	The bank card clearing agency charges inter-bank transfer and remittance fees for small and micro enterprise cards and corporate settlement cards.	free of charge

Appendix I (*continued*)

POLICY DOCUMENTS	POLICY CONTENT	SPECIFIC MEASURE
Commercial Households" (Yinfa [2021] No. 169)		
In July 2021, the PBoC issued the "Notice on Lowering the Deposit Reserve Ratio of Financial Institutions" (Yinfa [2021] No. 186)	Reduce the RMB deposit reserve ratio of financial institutions and increase credit support for small and micro enterprises	Reduce the RMB deposit reserve ratio by 0.5 %
In April 2022, the PBoC and the State Administration of Foreign Exchange issued the "Notice on Providing Financial Services for Epidemic Prevention and Control and Economic and Social Development" (Yinfa [2022] No. 92)	Give full play to the role of inclusive small and micro loan support tools. From January 1, 2022 to the end of June 2023, incentive funds will be provided based on a certain proportion of the increase in the inclusive small and micro loan balance of local legal person financial institutions.	Incentive funds will be provided based on 1 % of the incremental balance of inclusive small and micro loans from local legal person financial institutions.
In April 2022, the PBoC issued the "Notice on Lowering the Deposit Reserve Ratio of Financial Institutions" (Yinfa [2022] No. 94)	Starting from April 25, 2022, the RMB deposit reserve ratio of financial institutions will be reduced. In order to increase support for small and micro enterprises, for city commercial banks that do not operate across provinces and rural commercial banks with a deposit reserve ratio higher than 5 %, the deposit reserve ratio will be reduced by 0.25 percentage points.	Reduce the RMB deposit reserve ratio by 0.25 % An additional 0.25 % reduction
In May 2022, the PBoC issued the "Notice on Promoting the Establishment of a Long-term Mechanism for Financial Services for Small and Micro Enterprises to Dare to Loan, Willing to Loan, Ability to Loan and Will Loan" (Yinfa [2022] No. 117)	Continue to increase the supply of credit to small and micro enterprises	The growth rate of inclusive small and micro loans of all financial institutions shall not be lower than the average growth rate of various loans
In November 2022, the PBoC and other departments jointly issued the "Notice on Further Increasing Support for Deferred Principal and Interest Payment of Loans to Small and Micro Enterprises" (Yinfa [2022] No. 252)	For loans to small and micro businesses that are due in the fourth quarter of 2022 and are temporarily in trouble due to the impact of the new coronavirus epidemic (including operating loans for individual industrial and commercial households and small and micro business owners)	We jointly negotiate to postpone the principal and interest repayment, and the deferred loan will accrue interest as normal and no penalty interest will be charged.

Data source: Official website of the PBoC.

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