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Empowering Small and Medium Enterprises: A Paradigm Shift in Financing Mechanism and Policy Enhancement

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Abstract: This study presents a transformative narrative in the financial landscape, envisioning enhanced financing prospects for small and medium enterprises (SMEs). By dissecting the dynamics between financing mechanisms and policy frameworks in the stock market during 2015-2016 and 2020-2023, the research unveils a significant reduction in average discount rates under the new private placement policy, promising positive prospects for SMEs. Notably, major shareholder involvement demonstrates a positive correlation with discount rates in fixed-price issuances and a negative correlation in bidding issuances under the new policy. The correlation between major shareholder involvement and discount rates emphasizes market-driven competitive bidding's potential to further alleviate discount rates. Policy recommendations advocate for enhanced regulatory oversight on private placements with major shareholders while championing competitive bidding. The study not only aligns with core findings but also aspires to catalyze a future where SMEs navigate financial challenges efficiently, fostering substantial economic growth. This dual perspective contributes to reshaping the SME financing landscape.

Keywords: SME financing, private placement, policy impact

1. Introduction

Since the equity reform in 2006, private placement has emerged as a primary means for Chinese firms to pursue refinancing. The introduction of regulations in 2006 and 2007 marked the initiation of private placement. The process gained momentum after 2014, with 814 companies raising 1.8 trillion *yuan* in 2016 due to advantages such as faster issuance and lower requirements on disclosure. However, stock price volatility has posed a significant challenge, resulting in higher discount rates. The behavior of major shareholders is a critical factor, especially given their substantial ability to influence the process. Policy adjustments in 2017 and further relaxations in 2020 aimed to address these issues.

This study focuses on the effectiveness of the new policies, and the impact of major shareholder participation on discount rates under the new policy. In the context of the policy revision in 2020, the private placement market is expected to expand further. This study examines companies listed on the main board that conducted private placements between 2014-2016 and 2020-2023. It investigates the differences in discount rates during different policy phases and analyzes the impact of major shareholder participation on discount rates under the new policy's fixed-price and bidding pricing mechanisms.

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2. Policy Background, Literature Review and Hypotheses

2.1. Policy Background

Concerns arose due to price volatility leading to high discount rates. Policy adjustments in 2017 and further relaxations in 2020 aimed to address these issues. These new 2020 policies eased many of the restrictions imposed in 2017, further lowering the threshold and optimizing details.

Table 1: Changes in 2020 New Policy

Categories	2020 New Policy	2014 Old Policy
Subscriber	No more than 35 parties	No more than 10 parties
Issue Ratio	Up to 30% of total capital	Not specified; limited to intended use
Fixed-price Issuance Conditions	Determination of all issuing parties in advance (relative parties or strategic investors); otherwise, those determined in advance cannot participate in bidding but must accept the bidding results	Issuing parties related to controlling shareholders and relative parties or strategic investors
Pricing Reference Date	Fixed-price issuance: board resolution date, shareholders' meeting resolution date, or the first day of the issuance period; bidding issuance: the first day of the issuance period	Board resolution date, shareholders' meeting resolution date, or the first day of the issuance period
Lock-up Period	6 months (bidding) and 18 months (fixed-price)	12 months (bidding) and 36 months (fixed-price)
Floor Price	80% of the average closing price of the preceding 20 trading days before the pricing reference date	90% of the average closing price of the preceding 20 trading days before the pricing reference date
Approval Validity Period	12 months	6 months

In the Fixed-price Issuance Mode, the issuance price and targeted investors are predetermined at the board of directors' level. However, transparency and fairness challenges arise due to non-disclosure of the issuance price beforehand. This mechanism attempts to address conflicts of interest by requiring affiliated directors and shareholders to abstain from voting. Yet, the influence of major shareholders may impact the voting behavior of others.

Conversely, the Bidding Issuance Mode determines only the lower limit of the issuance price at the board level, with the final price set through a competitive bidding process. This aims to achieve more competitive pricing by involving a broader range of participants like shareholders, institutional investors and assets managers, etc. The competitive process enhances market-oriented pricing and reduces the discount rate, with issuer and sponsor aggregating and ranking valid subscription bids based on price to ensure fairness.

2.2. Literature Review

2.2.1. Research on Pricing Mechanisms

Studies indicate that the discount rate in bidding is relatively lower, showing a significant difference compared to fixed-price issuance [1]. Additionally, choices such as the pricing reference date, subscriber, and lock-up periods also exert a substantial influence on the discount rate.

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In the new policy, the lock-up period is halved compared to the previous one. Relevant research suggests that stocks with longer lock-up periods generally exhibit higher discount rates [2, 3]. This phenomenon is interpreted as compensation for liquidity risk.

2.2.2. Research on Major Shareholders Using Private Placements for Tunneling

Studies suggest that when shareholders participate, they send a positive signal to the market, indicating their optimistic outlook on the company's future development. This positive signal helps reduce the information gathering costs for external investors, thereby lowering the discount rate [3]. However, other statistics find that in discounted issuances, major shareholders' subscription ratio is greater than their current shareholding ratio, while in premium issuances, it is the opposite, suggesting that major shareholders engage in benefit extraction through premium issuances [4]. Moreover, a higher degree of benefit separation or increased participation by major shareholders is associated with higher discount rates [1, 5]. Furthermore, major shareholders may depress the pricing reference date price by releasing negative news or engaging in earnings management [6, 7]. Studies also indicate that major shareholders achieve higher discount rates through asset subscriptions by selling inferior assets is a means of tunneling [8, 9].

2.3. Theoretical Analysis and Hypotheses

2.3.1. Differences in Discount Rates under Different Policies

According to the Tunneling Hypothesis, in fixed-price issuances, the issuance price is determined by the shareholder meeting. Given China's high equity concentration and poor market efficiency, major shareholders can influence the board of directors and some other shareholders, issuing shares at a low price to themselves, and consequently resulting in higher discount rates, even if they abstain.

Under the old policy, as long as the subscriber include major shareholders, affiliated parties, or strategic investors, higher discounted fixed-price issuances could be adopted. The new policy stipulates that fixed-price issuances can only be used when all subscribers are pre-determined, while partial determination require bidding. Moreover, determined subscribers cannot participate in bidding but must accept the bidding results. The new policy also specifies detailed requirements for strategic investors, such as providing advanced technology or strategic resources. This will lead to many investors not meeting these criteria no longer being considered strategic investors, and issuing shares to them will require using bidding. Overall, the new policy is expected to lead more companies to adopt bidding, a market-oriented approach with lower discount rates. This, to some extent, restricts major shareholders from manipulating prices in private placements. Based on the analysis, Hypothesis 1 is proposed:

H1: Compared to the old policy, the average discount rate in private placements under the new policy is lower.

2.3.2. Different Pricing Mechanism and Discount Rates under the New Policy

Similar to the analysis above, in fixed-price issuances, according to the Tunneling Hypothesis, major shareholders can issue shares to themselves at a lower price. Additionally, they may strategically lower the stock price during this period. Under the new policy, the floor price for issuances is adjusted to 80% of the reference price, potentially increasing the discount rate.

According to the Information Asymmetry Hypothesis, studies indicate that major shareholder participation in private placements indirectly signals their optimistic outlook on the company, reducing information asymmetry and the cost for investors to gather information, ultimately leading to lower discount rates. In a more market-oriented issuance method like bidding, major shareholders

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cannot participate but must accept bidding results. Under the new policy, where more companies are expected to use competitive bidding, the pricing benchmark date must be the issuance date, with a short interval between the two. The stock price is less likely to experience substantial fluctuations, leading to lower discount rates. Based on the analysis, Hypothesis 2 is proposed:

H2A: Under the new policy, in fixed-price issuances, the degree of major shareholder participation is positively correlated with the discount rate in private placements.

H2B: Under the new policy, in bidding issuances, the degree of major shareholder participation is negatively correlated with the discount rate in private placements.

3. Research Design

3.1. Sample Selection and Data Sources

This study spans from 2014 to 2016 as the old policy period and from 2020 to October 2023 as the new policy phase, focusing on companies listed in the main board. This period represents the peak of issuances under the old policy and is a representative period for the new policy. The policies from 2017 to 2019 are not representative because during this period, the government implemented exceptionally stringent measures to suppress private placements, constituting an outlier phenomenon. Financial sector companies, those with risk warnings, firms issuing A shares and B shares, and entities with missing information were excluded. The final dataset consists of 1091 observations for the old policy phase and 1186 observations for the new policy phase. Data sources include the WIND database (for private placement data) and the iFind database (for financial data), with data processing and analysis conducted using Stata 16 software.

3.2. Variable Design

Dependent Variable is the discount rate. The calculation of the discount rate varies in the literature. This study calculates the discount rate using the closing price of the day before the private placement issuance. *Discount_1 = (Closing price of the day before issuance day – Issue price) / Closing price of the issuance day. Discount_0* and *Discount_20* represents discount rates calculated using the stock price on the issuance day and the average stock price over the twenty trading days before the issuance day, respectively, which will be used to perform robustness tests.

Independent variable is the level of major shareholder participation in directed share issuance, which is measured by the ratio of shares subscribed by major shareholders.

Based on literature review and theoretical analysis, the following control variables are selected:

Table 2: Control Variables

Variable Name	Symbol	Explanation
Financial Leverage	*Leverage*	Asset-liability ratio at the end of the previous year
Company Size	*Scale*	Natural logarithm of total assets at the end of the previous year
Issuance Ratio	*IssueRatio*	Ratio of the number of newly issued shares to the total shares outstanding after the issuance
Subscription Method	*AssetsPay*	Dummy, 1 for major shareholder asset subscription, 0 otherwise

3.3. Regression Model

The regression model used in this study is as follows:

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$$Discount\_1 = \alpha + \beta_0 Stockholder + \beta_1 Leverage + \beta_2 Scale + \beta_3 IssueRatio + \beta_4 AssetsPay + \epsilon$$

The study will test hypotheses through grouped regression analysis by grouping data according to different policy phases and pricing methods.

4. Empirical Analysis

4.1. Univariate Analysis

4.1.1. Univariate Test for Different Policy Phases

The table below presents the results of univariate tests for the mean differences in discount rates between different policy phases and major shareholder participation.

Table 3: Univariate Test - Mean Differences in Discount Rates between Different Policy Phases

Discount_1	Old Policy	New Policy	Difference	*t*-stat
	0.269	0.197	0.072***	8.663

Table 4: Univariate Test - Mean Differences in Discount Rates between Different Policy Phases and Major Shareholder Participation

Discount_1	Without Major Shareholder	With Major Shareholder	Difference	*t*-stat
Old Policy	0.265	0.276	-0.010	-0.716
New Policy	0.176	0.248	-0.071***	-6.979
Difference	0.089***	0.028*		
t-stat	9.554	1.706		

Results show that the discount rate in the new policy phase significantly lower than that in the old policy phase, especially when major shareholders do not participate. Additionally, in the new policy phase, when major shareholders participate, the discount rate is significantly higher compared to when they do not participate, while this difference is not significant in the old policy phase. This preliminary analysis indicates that policy phases and major shareholder participation are significant factors influencing discount rates in directed share issuances, with major shareholder participation having a more pronounced impact in the new policy phase. These results support Hypothesis 1.

4.1.2. Univariate Test for Different Pricing Methods under the New Policy

The table below presents the results of univariate tests for the mean differences in discount rates between different pricing methods under the new policy.

Table 5: Univariate Test - Mean Differences in Discount Rates between Different Pricing Methods under the New Policy

Discount_1	Bidding	Fixed Price	Difference	*t*-stat
	0.156	0.285	-0.129***	-13.632

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Table 6: Univariate Test - Mean Differences in Discount Rates between Different Pricing Methods and Major Shareholder Participation under the New Policy

Discount_1	Without Major Shareholder	With Major Shareholder	Difference	*t*-stat
Bidding	0.155	0.159	-0.003	-0.440
Fixed Price	0.269	0.295	-0.026	-1.025
Difference	-0.114***	-0.137***		
t-stat	-9.844	-6.214		

Results indicate that, regardless of major shareholder participation, the discount rate in biding issuance is significantly lower than in fixed price issuance, aligning with expectations. These results do not support H2A but provide preliminary support for H2B.

4.2. Regression Analysis and Robustness Test

Regression analysis, presented in table 7, was conducted to examine the impact of major shareholder participation on discount rates under different pricing methods in the new policy.

Table 7: Regression Analysis and Robustness Tests - Impact of Major Shareholder Participation on Discount Rates under Different Pricing Methods in the New Policy

	Fixed Price	Fixed Price	Fixed Price	Bidding	Bidding	Bidding
	discount_1	discount_0	discount_20	*discount_1*	discount_0	discount_20
stockholder	0.001*	0.001*	0.001**	-0.002**	-0.000	-0.000*
	(1.872)	(1.961)	(2.004)	(-2.055)	(-0.971)	(-1.684)
assetspay	-0.135***	-0.093**	-0.092**	0.081	0.014	0.012
	(-3.290)	(-2.530)	(-2.551)	(0.267)	(0.200)	(0.172)
issueratio	-0.062	0.192**	0.172**	0.634***	0.318***	0.290***
	(-0.628)	(2.149)	(1.977)	(3.217)	(6.881)	(6.666)
leverage	-0.001	-0.001	-0.001	-0.001	0.000***	0.000
	(-1.300)	(-1.305)	(-1.425)	(-1.413)	(2.748)	(1.521)
scale	-0.037***	-0.024***	-0.023***	-0.005	-0.018***	-0.009***
	(-3.877)	(-2.760)	(-2.782)	(-0.522)	(-7.980)	(-4.371)
_cons	1.111***	0.816***	0.813***	0.189	0.495***	0.297***
	(5.249)	(4.304)	(4.397)	(0.941)	(10.514)	(6.696)
N	382	382	382	804	804	804
R2	0.100	0.066	0.067	0.020	0.145	0.088
Adj. R2	0.088	0.054	0.054	0.014	0.140	0.083

In fixed price issuance, the regression coefficient for major shareholder participation is 0.001, significant at the 10% level, supporting H2A, indicating a positive correlation between major shareholder participation and discount rates. The results suggest that the set price issuance of new policy is struggling to curb the behavior of major shareholders' tunneling in fixed price issuance.

In bidding issuance, the regression coefficient for major shareholder participation is -0.002, significant at the 5% level, supporting H2B, indicating a negative correlation between major shareholder participation and discount rates. The results suggest that the bidding issuance of new policy can effectively reduce the tunneling behavior of principle shareholders and discount rates.

Robustness tests were conducted by replacing the dependent variable with *Discount_0* and *Discount_20*, representing the issuance day closing price and the average closing price over the 20

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days before the issuance day, respectively. Results from the robustness tests are presented in Table 8, which indicate that, for most variables, the conclusions from the main study still hold, supporting the robustness of the findings.

5. Conclusion

Private placements, as one of the preferred methods for listed companies to obtain additional funds, are associated with relatively high discounts. The new regulatory measures introduced in 2020 have significantly reduced the average discount rates compared to the old policies. In fixed price issuances, a positive correlation exists between the level of participation by major shareholders and the discount rate. Conversely, in the case of bidding issuances, major shareholder involvement is negatively correlated with the discount rate. This indicates that the new policies have effectively curtailed the tunneling behaviors of major shareholders. Based on the findings, the paper presents the following policy recommendations:

Enhance regulatory oversight: Despite improvements with the new policies, regulatory authorities should strengthen supervision to prevent major shareholders from engaging in tunneling practices, such as selling low-quality assets and earnings managements.

Promote bidding issuances: Encourage listed companies to opt for bidding issuances as it aligns with market-oriented policies and helps improve market efficiency. Major shareholder participation in bidding is associated with lower discount rates.

Optimize pricing mechanisms: In the new policy era, further enhancements to the pricing process are recommended, such as minimizing the time gap between the pricing benchmark date and the issuance date to prevent major shareholders from manipulating stock prices through tactics like trading suspensions.

This study has certain limitations, such as the relatively short implementation period of the new policies and a limited number of issuance instances. Future research efforts should delve deeper into these aspects to refine and ensure the integrity and accuracy of research findings.

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