



CONTROLLING SHAREHOLDERS, POLICY ENVIRONMENT AND ANNOUNCEMENT EFFECT: EVIDENCE FROM PEPS IN CHINA LISTED PROPERTY COMPANIES

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Abstract

Over the past four decades, the Chinese real estate market has grown rapidly, accompanied by significant risk accumulation. Private equity placement (PEP), a major form of equity financing, has received limited scholarly attention with respect to its effectiveness, the role of controlling shareholders, and the influence of policy environments in the real estate industry. This study addresses this gap by analysing PEPs conducted by 109 listed property firms using an event-study method and regression analysis. The results show consistently positive cumulative abnormal returns (CARs) around PEP announcements, with placements involving controlling shareholders generating significantly higher CARs, indicating market recognition of their supportive role and certification effect. Although positive announcement effects persist across different policy environments, further analysis reveals that the announcement effect shows no statistically significant relationship with the policy environment variable within shorter event windows. This suggests that short-term announcement effects are primarily driven by market sentiment rather than by a rational reassessment of policy-induced fundamentals.

Keywords: Announcement Effect, Controlling Shareholders, Event Study, Private Equity Placement, Real Estate Firms, Regression Analysis

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INTRODUCTION

Over the past four decades, the Chinese real estate market has expanded rapidly. This expansion has been driven by China's unique land-finance hybrid development model (Xiong, 2025). While this model has increased leverage among households and real estate firms, it has also resulted in substantial risk accumulation (Fang et al., 2016). China's real estate industry relies heavily on traditional bank-based financing, but high leverage has made it increasingly difficult for firms to access low-cost capital (Hu & Meng, 2016). Although Real Estate Investment Trusts (REITs) have developed rapidly in other Asian markets, China's REITs market remains nascent (Victor & Razali, 2019; Wen et al., 2024). Consequently, the need for alternative, market-based financing channels has become increasingly urgent. Ning and Jalil (2023) argue that PEP, as a risk-mitigation strategy, may enable listed property companies to better manage risk and enhance firm value.

PEPs are a form of secondary equity offering (SEOs) in which companies issue additional securities to a small group of sophisticated investors (Wruck, 1989). Prior studies have documented positive market reactions to PEP announcements, yet the role of industry characteristics in shaping these outcomes remains underexplored. Debates persist over the influence of controlling shareholders, who may either support the firm or engage in tunnelling (Wang et al., 2020; Zhang et al., 2021). In China, the real estate sector is highly visible and heavily regulated, with frequent policy interventions such as land-supply controls, purchase restrictions, and financing measures (An & Wang, 2013). This environment provides a valuable setting to examine how firm-level and policy factors interact to influence PEP outcomes, addressing a key gap in understanding financing dynamics in China's property market.

The results indicate that PEPs generate significantly positive market reactions among Chinese listed property firms. Announcement effects are stronger when controlling shareholders participate, suggesting that the market interprets their involvement as a supportive signal that enhances confidence in firm value. Policy conditions are generally negatively associated with announcement effects, consistent with theoretical expectations, although this relationship is not statistically significant in shorter event windows. This pattern suggests that regulatory conditions shape investor behaviour over longer horizons, whereas short-term price movements are primarily driven by market sentiment and immediate reactions. Overall, the findings highlight the temporal variation in the effectiveness of policy influences on PEP announcement effects.

This study provides industry-specific evidence on private equity placements in China's real estate sector by jointly examining controlling shareholder participation and policy timing. By integrating governance signalling with regulatory conditions, it extends the certification hypothesis to a highly

regulated property market and offers policy-relevant insights into market-based refinancing under regulatory tightening.

LITERATURE REVIEW

Private Equity Placements

Prior studies consistently document positive announcement effects for PEPs. Early studies attribute these effects to governance improvements arising from enhanced monitoring through changes in ownership concentration, whereas subsequent research emphasises signalling mechanisms that reduce information asymmetry (Hertzel & Smith, 1993; Wruck, 1989). Behavioural research suggests that investors may overreact to such signals, leading to temporary price increases followed by weaker long-term performance (Marciukaityte et al., 2005). Although similar positive effects have been found in China, existing work offers competing interpretations of the underlying mechanisms and largely overlooks industry-specific contexts (Zhang, 2008). This limits our understanding of how PEPs operate in sectors, such as real estate, where financing constraints, information asymmetry, and regulatory pressures interact.

Controlling Shareholders and Corporate Governance

Controlling shareholders in Chinese listed firms often hold substantial ownership and exert significant influence on corporate financing decisions (Chen & Wang, 2005). Existing research offers two competing perspectives. One view suggests that their involvement enhances monitoring and supports firm value through enhanced governance, particularly when external constraints are strong (Yang & Sun, 2017). The opposing view highlights risks of tunnelling under concentrated ownership structures (Zhang et al., 2021). These mixed findings indicate that the behaviour of controlling shareholders is context-dependent and shaped by institutional and regulatory conditions. Nevertheless, empirical evidence from the real estate sector, where leverage is high and policy oversight is intensive, remains scarce, leaving an important gap in the governance literature.

Policy Environment and the Real Estate Sector

Policy implementation plays a critical role in shaping market reactions to private equity placements. Marzukhi et al. (2022) note that bureaucratic complexity and uneven enforcement reduce institutional effectiveness. Similarly, frequent and unpredictable interventions in China's real estate sector affect investor expectations and placement pricing (Ge et al., 2023; Li et al., 2014). Policy inconsistency may increase placement discounts or trigger stock price overreactions by amplifying investor uncertainty. While prior studies show policy shifts shape macro and industry dynamics, firm-level effects on PEPs remain

underexplored, limiting understanding of how policy intensity interacts with market responses.

Conceptual Framework

This study conceptualises the announcement effect of PEPs as the central outcome influenced by internal governance signals and external policy conditions. As illustrated in Figure 1, two key factors are hypothesised to shape the price reaction around PEP announcements. First, the participation of controlling shareholders provides a governance-related signal that may mitigate information asymmetry and reduce concerns about tunnelling. Their involvement can therefore enhance investor confidence and strengthen the positive market response to PEPs. Second, shifts in the policy environment represent an important external force that affects firms' financing constraints and investors' expectations. Periods of regulatory tightening increase uncertainty and elevate discount rates, moderating or reversing the positive effects typically associated with PEP announcements, whereas more accommodative policy phases may reinforce favourable market reactions. Firm-level and market-level characteristics are included as control variables to address heterogeneity in financial conditions and industry dynamics. Together, the framework positions the announcement effect as the result of interactions between governance signals, regulatory conditions, and firm-specific controls.

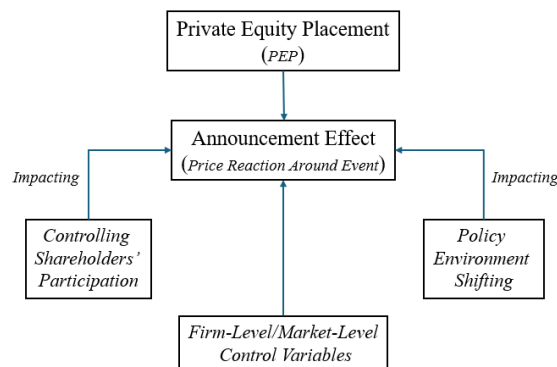


Figure 1: Conceptual Framework

Hypotheses Development

Prior studies consistently document positive stock price reactions to PEPs, largely due to signalling effects and reduced information asymmetry (Hertzel & Smith, 1993; Wruck, 1989). Given the valuation opacity and financing constraints prevalent in the real estate sector, PEPs are expected to convey credible

information regarding project quality and firm prospects. Accordingly, we propose the following hypothesis:

H1: *PEP transactions in Chinese-listed real estate firms will lead to positive announcement effects.*

Controlling shareholders in China typically possess substantial influence over financing decisions. Their participation in PEPs provides an additional governance signal, suggesting confidence in future performance and mitigating concerns regarding tunnelling behaviour. Market reactions are therefore expected to be more favourable when controlling shareholders inject capital. Thus, we propose:

H2: *PEP transactions involving controlling shareholders in Chinese-listed real estate firms will lead to more positive announcement effects.*

The real estate sector is highly sensitive to policy interventions. Regulatory tightening increases refinancing costs, elevates uncertainty, and raises discount rates in expected cash flows, all of which weaken market responses to corporate financing events. During restrictive policy periods, the signalling effect of PEPs may be offset by adverse macro and policy conditions. Therefore, we propose:

H3: *During tightening regulatory periods, the announcement effect of PEP transactions by Chinese-listed real estate firms will be more negative.*

DATA AND METHODOLOGY

Data

The primary data source for this study is the China Stock Market and Accounting Research (CSMAR) database. We collected data on PEPs conducted by Chinese listed real estate companies from 2005 to 2023. The sample selection process excludes the following cases: non-A-share transactions; firms under special treatment (ST) or particular transfer (PT) status at the time of the transaction; firms engaged in other refinancing activities within one year before or after the PEP; transactions with missing data; suspended or incomplete placements; and cases in which multiple PEPs were conducted by the same firm on the same day, which are aggregated into a single observation. The final sample consists of 109 listed real estate firms that successfully implemented PEPs.

The reasons we exclude non-listed real estate firms and Chinese developers listed in Hong Kong from our sample are explained as follows. Non-listed or regional developers rely primarily on bank financing and lack access to market-based equity issuance, making them unsuitable for analysing PEP dynamics. In contrast, PEP transactions by Hong Kong-listed firms do not require regulatory approval, whereas all placements in mainland China must be reviewed and authorised by the China Securities Regulatory Commission (CSRC). This institutional difference materially shapes investor expectations. CSRC approval

functions as a form of quality assurance for the transaction. For these reasons, our analysis focuses solely on Chinese real estate firms listed on the A-share market.

Table 1 provides descriptive statistics of the sample data. Over the sample period (2005-2023), Chinese real estate firms raised an average of 21.43 CNY billion through PEPs, which accounted for about 25.42% of the total outstanding shares post-transaction. Consistent with previous studies, these companies issued new shares at an average discount of 8.89% in PEPs. The average market value of the sample firms is 23.22 CNY billion, with an average Tobin's q of 1.618, suggesting relatively strong growth prospects. The average leverage ratio is 67.25%, with a higher median of 70.51%, suggesting relatively high leverage among firms engaged in PEPs. The average ownership stake of the largest shareholder is 39.65%, suggesting limited concerns regarding dilution of control rights, highlighting their significant influence. Additionally, sample companies have an average Book-to-Market ratio of 0.7904 and an average return on equity (ROE) of 10.19%.

Table 1: Descriptive Statistics

Variable	N	Mean	Median	Std. Dev	Max	Min
Discount	109	0.0889	0.1168	0.4272	0.7631	-1.847
Placement Fraction	109	0.2542	0.2222	0.1619	0.9574	0.0155
Proceeds (CNY billions)	109	21.4254	21.3911	0.9063	24.8906	18.7012
Tobin's q	109	1.618	1.1874	2.0516	19.0936	0.7758
Leverage	109	0.6725	0.7051	0.1547	0.9136	0.0463
Largest Shareholder	109	39.6500	41.2500	17.0518	79.5700	6.5000
Market Value (CNY billions)	109	23.2237	23.0648	1.342	27.2529	20.49
Book to Market	109	0.7904	0.8422	0.2194	1.2889	0.0524
ROE	109	0.1019	0.0943	0.0909	0.4333	-0.2309

Source: Authors

Measurement of Announcement Effects and Regression Model

To measure announcement effects, we adopt the event-study approach proposed by De Jong et al. (1992) to calculate Cumulative Abnormal Returns (CARs).

$$R_{jt} = \alpha_j + \beta_j R_{mt} + \varepsilon_{jt} \quad \text{Eq.1}$$

$$AR_{jt} = R_{jt} - (\alpha_j + \beta_j R_{mt}) \quad \text{Eq.2}$$

$$CAR_j^T = \sum_{t=1}^T AR_{jt} \quad \text{Eq.3}$$

Where R_{jt} is the return on company j on date t ; R_{mt} is the daily return of the *Shanghai Real Estate Industry Index*; α_j is the intercept term estimated from the market model for firm j ; β_j is the OLS estimate of the market model parameter for firm j ; ε_{jt} is the error term of company j on the sample event day t ; AR_{jt} is the abnormal return of company j at date t ; CAR_j^T denotes the cumulative abnormal return of firm j over event window T ; T is the event window.

To examine the effects of controlling shareholder participation and policy timing on PEP announcement effects, we estimate the following regression model:

$$CAR_j^T = \alpha_0 + \beta_1 Controller + \beta_2 Policy + \gamma_i \sum Control_i + \varepsilon \quad \text{Eq.4}$$

Where CAR_j^T represents the cumulative abnormal return during the announcement period T of the PEP transaction j . *Controller* is a dummy variable indicating whether the controlling shareholder participates in the PEP transaction. It takes a value of 1 when the controlling shareholder participates in the transaction; otherwise, 0. *Policy* is another dummy variable indicating whether the PEP transaction occurs during a tightening period of real estate regulatory policies. $Control_i$ represents the control variables involved in the model. ε represents the error term. The classification, definitions, and data sources of all variables used in the model are presented in Table 2.

Table 2: Definitions of Variables Used in the Empirical Analysis

Category	Proxy	Definition	Source
<i>Dependent</i>	<i>CAR</i>	The cumulative abnormal return around the event.	Wruck (1989); Hertz and Smith (1993)
<i>Key Explanatory Variables</i>	<i>Controller</i>	Dummy variable equal to 1 if the controlling shareholder or its related parties participate in the transaction, and 0 otherwise.	Sun (2015)
	<i>Policy</i>	Dummy variable equal to 1 during periods of real estate policy tightening, and 0 otherwise.	Author
<i>Control Variables</i>	<i>Discount</i>	One minus the ratio of the placement price to the closing price ten trading days after the announcement.	Wruck and Wu (2009)
	<i>Proceed</i>	Natural logarithm of the money raised from the transaction.	Hertz and Smith (1993); Barclay et al. (2007)

Category	Proxy	Definition	Source
	<i>Fraction</i>	The percentage of the number of shares issued to the total number of shares issued after the deal.	Hertzel and Smith (1993); Hertzel et al. (2002)
	<i>MV</i>	Natural logarithm of the market value of the Firm (CNY billions) in the previous accounting period (year [-1] ²).	Hertzel and Smith (1993); Wruck (1989)
	<i>Leverage</i>	Debt ratio in the previous accounting period (year [-1]), calculated as Total Debt (year [-1]) / Total Assets (year [-1]).	Yu et al. (2016); Zhang (2007)
	<i>ROE</i>	Return On Equity in the previous accounting period (Year [-1]).	Tao et al. (2018)
	<i>Tobin_q</i>	Tobin's q in the previous accounting period (year [-1]), equal to Market Value / (Total Assets - Net Intangible Assets - Net Goodwill).	Zhang (2007)
	<i>BM</i>	Book to Market Ratio in the previous accounting period (year [-1]), equal to Book Value/Market Value.	Hertzel and Smith (1993)
	<i>Top1</i>	The shareholding ratio of the first controlling shareholder in the previous accounting period (year [-1]).	Zhang et al. (2021)
	<i>Bull</i>	Dummy variable equal to 1 if the stock market is in a bullish phase, and 0 otherwise.	Sun (2015)

Notes: When data for 2023 are unavailable, values from 2022 are used as a substitute. Year [-i] denotes the i-th year before the event, year [0] refers to the event year, and year [+i] indicates the i-th year after the event.

This model is built upon several standard assumptions and is subject to certain limitations. It assumes that markets are efficient within short-term event windows. It also assumes that abnormal returns capture the information content of PEP announcements. The model presumes a linear and additive relationship between explanatory variables and CAR. Additionally, the error terms are assumed to satisfy exogeneity and other basic statistical conditions. However, the model cannot fully rule out the influence of unobserved factors. These may include concurrent disclosures, insider expectations, or shifts in market sentiment. Such factors could affect price reactions. For instance, the policy cycle dummy variable is included to capture regulatory cycles, but this approach may not reflect variations in policy intensity. Similarly, controlling shareholder participation is coded as a binary variable. It does not distinguish differences in motivations or degrees of involvement. Event study results may be sensitive to the choice of event window and benchmark model. This sensitivity could affect the robustness of estimated announcement effects.

RESULTS

Announcement Effect

Consistent with previous literature and hypothesis H1, Chinese listed real estate companies exhibit statistically significant positive CARs during private placement transactions. Table 3 presents the values of CARs during different event windows. In the [-1,1] event window, the average CAR reaches 6.5%, which is significant at the 1% level. Similarly, CARs are also significantly positive during the [-3, 3] and [-10, 10] event windows. These results indicate that the market responds positively to private placement transactions in real estate companies.

Table 3: Announcement Effect in Various Event Windows

Variable	N	Mean	Median	Std. Dev	Max	Min
[-1,1]	109	0.0650***	0.0443	0.1070	0.3090	-0.1957
[-3,3]	109	0.0800***	0.0444	0.1717	0.5687	-0.3104
[-10,10]	109	0.1335***	0.0701	0.2776	1.1135	-0.3789

Notes: *** $p < 0.01$. CARs are calculated using the market model. Source: Author.

Participation of Controlling Shareholders

Table 4 compares announcement effects between PEPs with and without controlling shareholder participation. Panel A reports mean CARs for both groups, which are significantly positive. In the [-1,1] event window, the average CAR for transactions with controlling shareholder participation is 8.74%, compared with 4.28% for those without such participation. Panel B presents the differences in CARs between the two groups. The variable DIF denotes the mean CAR for transactions with controlling shareholder participation minus that for transactions without such participation. The estimated differences are negative across all event windows, with statistical significance based on t-tests. Although the *Wilcoxon* test does not show statistical significance, the positive CAR differences are consistent with the t-test results. The lack of significance may reflect the moderate sample size and variability in the differences, which reduces the test's power.

Table 4: CAR Comparison with Controlling Shareholder Participation

Panel A: CAR for Window [-1,1]					
Controller Shareholder			Non-Controller		
N	Mean	T	N	Mean	T
63	0.0874***	6.1233	46	0.0428***	2.8669

Panel B: CAR Difference					
Windows	DIF	T-Test		Wilcoxon Test	
		T	p-value	Z	p-value
[-1,1]	0.0446**	2.1215	0.0181	1.841	0.0657
[-3,3]	0.0508**	1.9788	0.0252	1.614	0.1066
[-10,10]	0.1069**	2.0429	0.0218	1.589	0.1130

Notes: ** $p < 0.05$, *** $p < 0.01$, significance is based on t-test; DIF is equal to the mean of CAR with controlling shareholder participation minus the mean of CAR without controlling shareholder participation.
Source: Author

Figure 2 compares the CARs during the announcement period for PEPs with and without controlling shareholder participation. The figure shows that transactions involving controlling shareholders exhibit significantly higher CARs over the event window than both the full sample and the non-participation group. This visual evidence further corroborates the results reported in Table 4. The stronger market response can be attributed to the positive signal conveyed by controlling shareholder participation. The results in Table 4 and Figure 2 suggest that the market responds positively to the participation of controlling shareholders in transactions of real estate companies.

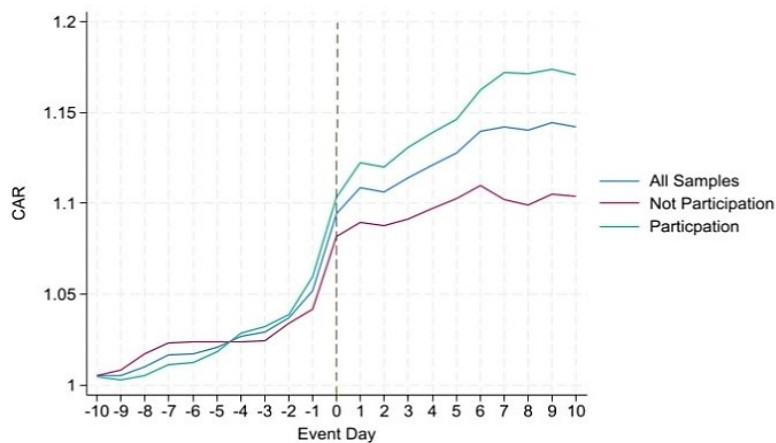


Figure 2: Comparison of CAR by Controlling Shareholder Participation

Real Estate Policy Effects

Table 5 compares the impact of private placement announcements during different real estate policy periods. Panel A shows that out of 109 private

placement transactions, 71 took place during relaxed policy periods, while 38 occurred during tight policy periods. Despite differences in sample size, both groups show significantly positive average cumulative abnormal return rates. During relaxed periods, the CAR value is 7.64% (T: 5.6055), while during tight periods, it is 4.36% (T: 3.0555). Panel B compares CAR values between the groups, where DIF represents the difference. Except for the $[-1,1]$ interval, where the difference is not significant, in other intervals, the difference is both positive and significant at the 1% level. This suggests that in Chinese listed real estate firms, private placement announcements are associated with larger CARs during relaxed policy periods compared to tight ones. These results suggest that PEP announcements generate positive market reactions across policy environments, with stronger effects observed during more accommodative policy periods.

Table 5: CAR Comparison in Different Policy Periods

Panel A: CAR for Window [-1,1]					
Policy Relaxation			Policy Tightening		
N	Mean	T	N	Mean	T
71	0.0764***	5.6055	38	0.0436***	3.0555
Panel B: CAR Difference					
Windows	DIF	T-Test		Wilcoxon Test	
		T	p-value	Z	p-value
$[-1,1]$	0.0328	1.5334	0.1281	1.571	0.1163
$[-3,3]$	0.0988***	2.9639	0.0037	2.245	0.0248
$[-10,10]$	0.2176***	4.1876	0.0001	4.101	0.0000

Notes: *** $p < 0.01$, significance is based on t-test; DIF is equal to the difference of the mean of CARs in the policy relaxation minus the mean of CARs in the policy tightening period. Source: Author

Regression Results

To further validate hypotheses H2 and H3, area fixed-effects regressions were conducted using Eq.4. Variance inflation factor (VIF) tests were conducted, and no serious multicollinearity was detected. We further assess the robustness of our results by re-estimating the regressions using alternative event windows. Specifically, CARs calculated over the $[-3,3]$ and $[-10,10]$ windows are employed as dependent variables.

Table 6: Announcement Effect Regression Analysis presents the results for these three regression equations. The variable *Controller*, representing major shareholder participation, is significantly positive in all tests, aligning with Table 4 findings and Figure 2. This evidence supports H2 and is consistent with a supportive role of controlling shareholders (Wruck & Wu, 2009). Furthermore, controlling shareholders' participation provides the market with a credible signal. Given their informational advantages, such participation is interpreted by investors as signalling either firm undervaluation or favourable long-term

outcomes from the PEP. This evidence also supports the certification hypothesis proposed by Hertz and Smith (1993).

Table 6: Announcement Effect Regression Analysis

Dependent Variables: CARs	[-1,1]	[-3,3]	[-10,10]
Constant	-0.265 (-0.753)	-0.230 (-0.389)	-0.415 (-0.436)
Controller	0.076*** (3.279)	0.081** (2.217)	0.101* (1.969)
Policy	-0.003 (-0.116)	-0.047 (-1.223)	-0.177*** (-3.189)
<i>Other Control Variables</i>	Not Significant	Not Significant	Not Significant
ROE	-0.384*** (-2.822)	-0.328 (-1.530)	-0.646* (-1.956)
Discount	0.079*** (2.861)	0.137*** (2.815)	0.257*** (3.445)
Area-Fixed	Yes	Yes	Yes
N	104	104	104
R ²	0.434	0.361	0.450
Adj R ²	0.243	0.146	0.265
F	5.193	3.183	3.602

*Notes: * p < 0.1, ** p < 0.05, *** p < 0.01; Robust t-statistics in parentheses. Some control variables were included but not reported for brevity. Source: Author*

The variable *Policy*, indicating real estate regulation tightening, is negatively related to the dependent variable across all groups but is only significant in the [-10,10] interval. The regression and robustness test results provide limited support for Hypothesis H3. This suggests that the industry policy environment does not exert a consistently significant influence on the announcement effect of PEPs. These findings contrast with the univariate evidence in Table. One possible explanation is that, over shorter event windows, investor reactions are more influenced by investor sentiment. In longer windows, such as [-10,10], investors have greater time to process information and assess the implications of policy changes for PEPs more rationally. In contrast, the market's interpretation of controlling shareholder participation is relatively immediate and more easily interpretable, requiring little time for assessment. However, as time passes, investors may reassess whether the initial reaction to this signal was overly optimistic. As a result, although the estimated coefficients remain in the predicted direction across specifications, their statistical significance differs across event windows.

We also find a significantly negative relationship between ROE and announcement effects, which is consistent with market expectations of performance reversal. As ROE is measured before the transaction, lower profitability signals greater potential for improvement following a PEP. A similar interpretation applies to placement discounts. Larger discounts are typically

associated with weaker firm quality and thus greater scope for post-transaction performance gains, leading to stronger market reactions. These results suggest that investors view PEPs as mechanisms for earnings recovery. Consistent with Wruck's monitoring hypothesis, discounts may also compensate investors for enhanced oversight, although performance reversal appears to play a more prominent role (Wruck, 1989).

This study employs an event study and cross-sectional regression to identify the statistical relationships between market reactions and key variables. However, potential endogeneity issues should be noted. The involvement of controlling shareholders in decision-making may not be random. Their motivation could stem from recognising growth opportunities or the firm's intrinsic value, which may introduce omitted variable bias. In addition, the use of dummy variables to measure policy simplifies complex regulatory changes and may not capture the full intensity of industry policy shifts. Furthermore, the insignificance of policy variables in shorter event windows suggests that market sentiment may play an important role. These endogeneity concerns imply that the findings should be interpreted as robust evidence of correlation rather than strict causal inference. Future research could employ instrumental variables or quasi-experimental designs to further validate the results.

CONCLUSIONS

This study examines the announcement effects of private equity placements by Chinese listed real estate firms. Consistent with prior research, we document significantly positive market reactions to PEP announcements, with an average CAR of 6.50% over the [-1,1] event window. Positive announcement effects are observed both with and without controlling shareholder participation, but are significantly stronger when controlling shareholders are involved, indicating that the market interprets such participation as a credible and supportive signal. In contrast, regulatory tightening is associated with weaker announcement effects over longer event windows, suggesting that short-term price reactions are largely driven by market sentiment rather than rapid reassessment of policy-induced fundamentals.

This study contributes to the literature by examining how governance signals and policy conditions jointly shape market responses to equity refinancing in a highly regulated and leveraged sector. The findings support the certification hypothesis and suggest that PEP announcement effects also reflect expectations of performance reversal under financing constraints. From a policy perspective, the results highlight that regulatory uncertainty weakens investor confidence. Greater policy consistency and transparency may therefore help stabilise market expectations while preserving firms' access to market-based financing. From a

managerial perspective, controlling shareholder participation emerges as an effective signalling mechanism during refinancing.

Several limitations should be acknowledged. The analysis focuses on short-term announcement effects and does not examine long-term performance. In addition, controlling shareholders' participation and policy conditions are measured using simplified proxies. Future research could explore discount-setting behaviour, long-term outcomes, and more granular policy indicators to further understand equity financing dynamics in China's real estate sector.

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