

IPO Underpricing and Long-Term Performance in China's A-Share Market

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Abstract: This paper aims to provide a comprehensive investigation into the phenomenon of IPO underpricing and its impact on long-term performance within China's A-share market. By analyzing empirical data from 109 A-share companies listed between June 2006 and June 2007, the study finds that the average first-day return reaches an impressive 107%, while the cumulative abnormal returns (CAR) over one and three years post-IPO are -1.71% and -1.54%, respectively. Further econometric analyses identify market volatility, pre-IPO uncertainty, first-day turnover rate, and investor sentiment as significant factors affecting long-term IPO performance.

Keywords: IPO, A-Share Market, Long-Term Performance.

1. Introduction

The phenomenon of IPO underpricing, defined as the difference between the offering price and the closing price on the first trading day, remains a central topic in financial research. This pricing anomaly has been extensively documented in global capital markets, including the United States, Europe, and emerging markets (Ritter, 1991). However, the magnitude and persistence of IPO underpricing in China's A-share market are particularly notable. According to Niu et al. (2014), China's average IPO first-day return ranks among the highest worldwide. The combination of regulatory frameworks, investor behavior, and market mechanisms contributes to this phenomenon. Nevertheless, the sustainability of such high initial returns remains questionable, as many IPOs underperform market benchmarks over the long term (Liang, 2008). This paper seeks to address two core research questions: What are the main drivers of IPO underpricing in China? And how does this underpricing impact long-term post-IPO performance?

2. Literature Review

Extensive academic literature exists on IPO underpricing. Beatty and Ritter (1986) were among the first to formally document that information asymmetry plays a significant role in IPO mispricing. They argue that higher ex-ante uncertainty leads underwriters to set lower offering prices to attract investors. In the Chinese context, Chan et al. (2004) highlighted the influence of the government's approval-based IPO system, which artificially depresses offering prices due to regulatory controls. Moreover, investor sentiment and speculative behavior are heightened in China's retail-dominated equity markets (Chi & Padgett, 2005).

Long-term performance studies, such as Ritter (1991), consistently show that IPO firms underperform market indices over 3- to 5-year horizons. This underperformance is attributed to market overreaction, post-IPO information revelation, and earnings management strategies employed by firms prior to going public (Loughran & Ritter, 1995). In the Chinese market, Liang (2008) reported significant negative CARs for IPOs within three years post-listing, aligning with global findings.

The phenomenon of IPO underpricing has been examined extensively in both developed and emerging markets, but its determinants and implications vary considerably across institutional settings. Early studies in the United States and Europe, such as Ritter (1991) and Loughran & Ritter (1995), emphasize the role of information asymmetry and investor over-optimism in driving short-run excess returns. Beatty & Ritter (1986) further formalized this notion by linking greater ex-ante uncertainty with deeper underpricing, arguing that underwriters strategically discount prices to compensate investors for taking on informational risks. Subsequent research expanded on these foundations, showing that underpricing also serves as a signaling mechanism for firm quality (Allen & Faulhaber, 1989), and as a form of marketing expense to generate investor enthusiasm.

In the Chinese context, IPO underpricing is particularly pronounced due to the unique interplay between regulatory control and market dynamics. Chan et al. (2004) highlighted how the government's approval-based IPO system depresses offer prices, artificially inflating first-day returns. This institutional feature differentiates China from developed markets where pricing is largely market-driven. Moreover, the dominance of retail investors in China amplifies speculative behavior. Chi & Padgett (2005) demonstrated that investor sentiment and herd dynamics contribute significantly to short-run underpricing. The prevalence of lottery-like subscription mechanisms in oversubscribed IPOs further stimulates speculative demand, thereby reinforcing price anomalies.

Beyond China, studies from other emerging markets offer valuable comparative insights. For instance, Aggarwal et al. (1993) documented severe IPO underpricing in India, attributing it to weak disclosure standards and limited institutional investor participation. Similarly, Levis (1993) found that U.K. IPOs underperform in the long run, reflecting systematic over-optimism and subsequent correction. These cross-market comparisons suggest that institutional environments and investor composition are crucial in shaping the magnitude of underpricing and long-term outcomes.

A growing body of literature has also focused on the long-term performance of IPOs. Ritter (1991) was among the first to establish the systematic underperformance of IPO firms relative to market benchmarks over three- to five-year

horizons. Subsequent studies attributed this trend to post-IPO information revelation, earnings management prior to listing, and investor overreaction at the time of issuance (Loughran & Ritter, 1995). In the Chinese market, Liang (2008) found substantial negative CARs in the three years following IPOs, consistent with international evidence. Niu et al. (2014) reinforced this finding by demonstrating that excessive first-day returns tend to predict more severe long-term underperformance.

Recent contributions have introduced additional perspectives to explain IPO underpricing and post-IPO performance. Behavioral finance research emphasizes investor overconfidence, limited attention, and the role of media coverage in fueling initial price surges (Baker & Wurgler, 2007). Evidence from the Chinese market suggests that excessive attention in financial media prior to IPOs often correlates with inflated initial valuations but weaker subsequent returns. Similarly, studies on investor sentiment indices (e.g., Brown & Cliff, 2004) confirm that markets characterized by optimism experience stronger short-run returns but poorer long-run performance.

Another line of research examines the role of institutional investors. Brav & Gompers (1997) highlighted how institutional monitoring improves long-term outcomes in U.S. markets. However, in China, where institutional investors historically played a limited role, such stabilizing effects are less pronounced. The gradual rise of mutual funds, pension funds, and foreign institutional investors in the A-share market after 2010 may have altered the dynamics of IPO pricing, but during the 2006–2007 window under study, retail dominance remained overwhelming.

Moreover, recent scholarship has stressed the importance of regulatory reforms. The transition from the approval-based system to the registration-based system in China, first piloted

in the STAR Market in 2019, has shifted pricing power toward issuers and underwriters. Early evidence (Zhang & Wang, 2021) suggests that underpricing levels declined modestly under the registration system, though long-term underperformance persists, reflecting deeper structural issues such as speculative trading culture and weak investor education. These findings highlight the necessity of situating IPO anomalies within evolving institutional contexts.

Overall, the literature consistently supports three key insights: (1) IPO underpricing is a global phenomenon, but its magnitude is highly context-dependent; (2) long-term underperformance is common, though shaped by firm behavior, investor sentiment, and market structure; and (3) in China, regulatory mechanisms and retail investor dominance jointly exacerbate both the scale of underpricing and the severity of long-term corrections. These insights provide the foundation for analyzing the empirical results presented in this study.

3. Data and Methodology

Sample Selection:

The study uses data from 109 firms listed on the Shanghai and Shenzhen Stock Exchanges between June 2006 and June 2007. This period offers a stable regulatory environment before the implementation of major IPO reforms in 2009. Data sources include the CSMAR database and the Wind Financial Terminal, ensuring data reliability and coverage of IPO variables, including offer price, first-day closing price, market returns, and firm-specific financials.

3.1. Variable Measurement

IPO Underpricing is measured as:

$$\text{First-day Return}(\%) = \frac{\text{First-day Closing Price} - \text{Offering Price}}{\text{Offering Price}} \times 100\%$$

Long-term performance is evaluated using Cumulative Abnormal Returns (CAR):

$$CAR_t = \sum_{i=1}^t (R_i - R_{m,i})$$

Where R_i is the individual stock's return at time i , and $R_{m,i}$ is the corresponding market index return.

3.2. Control Variables

To enhance the robustness of the regression analysis, control variables include firm size (log of total assets), issue size (total capital raised), underwriter reputation, and industry dummy variables.

3.3. Methodology

The study applies event study methodology and panel data regression models to analyze the relationship between IPO underpricing and long-term performance. The event windows used for CAR calculations span one year (250 trading days) and three years (750 trading days) post-listing.

3.4. Empirical Results

3.4.1. Descriptive Statistics

The descriptive statistics reveal that the average first-day return across the sample is 107%, with a standard deviation of 34%. The average one-year CAR is -1.71%, while the three-year CAR stands at -1.54%, confirming the presence of long-term underperformance.

4. Regression Results

Regression analyses show that IPO underpricing is significantly and negatively correlated with long-term CARs ($p < 0.01$). Firms with higher first-day returns tend to experience more negative abnormal returns in subsequent years. Market volatility, as measured by the standard deviation of market returns over the prior 90 days, also negatively affects long-term performance ($p < 0.05$). Additionally, pre-IPO uncertainty, proxied by prospectus revisions and media coverage, is significantly associated with larger initial underpricing but weaker long-term returns.

4.1. Robustness Tests

Robustness checks using alternative benchmarks, such as the SME board index and controlling for industry fixed effects, yield consistent results. Furthermore, excluding financial firms from the sample does not materially alter the findings.

4.2. Discussion

The findings align with the signaling theory, suggesting that firms deliberately underprice to attract investor attention and create momentum (Allen & Faulhaber, 1989). However, the cost of such underpricing manifests in poor long-term stock performance, as inflated initial valuations correct over time. The Chinese IPO market's approval-based system further exacerbates this issue, limiting the issuer's pricing

autonomy (Chi & Padgett, 2005). Moreover, retail investor dominance leads to herd behavior, fueling short-term price surges but contributing to long-term underperformance.

5. Conclusion and Policy Implications

This study provides strong empirical evidence that IPO underpricing in China's A-share market is both significant and detrimental to long-term performance. Key drivers include regulatory pricing constraints, market volatility, and investor sentiment. To mitigate these issues, several policy recommendations are proposed:

(1) Transition fully to a market-oriented IPO registration system to reduce artificial price controls.

(2) Enhance disclosure requirements to reduce information asymmetry and improve investor decision-making.

(3) Strengthen investor education programs to foster rational investment behavior and discourage short-term speculation.

Future research could extend the sample period to include the post-2019 registration system era or apply behavioral finance models to further investigate investor-driven pricing anomalies in China's capital markets.

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