Dean&Francis
ISSN 2959-6130

Reforms and Challenges to the Initial Public Offering Pricing Mechanism Under the New Inquiry Rules: An Initial Public Offering Break Case Study Based on ASR Microelectronics

Chongyu Liu[1, *]

[1]School of Management, Shanghai University, Shanghai, China
*Corresponding author: liuchongyu05@outlook.com

Abstract:

This article takes the severe initial public offering (IPO) setback of ASR Microelectronics Co., Ltd. as a case study, and deeply examines the impact of the new inquiry regulations on the IPO pricing mechanism under the registration-based system. The study found that the new regulations effectively suppressed the phenomenon of "group quotation" and promoted the return of pricing power to the market by optimising the elimination ratio of high prices and strengthening the supervision of quotation behaviour. However, this reform has also turned the core contradiction of IPO pricing into a conflict between the issuer's overvaluation demands and investors' rational judgement. The breakout case of ASR Microelectronics shows that the market is making mandatory corrections to the valuation that is detached from the fundamentals through the price discovery function, revealing new challenges of the imbalance in the pricing game in the deepening stage of the registration system. This research provides theoretical reference and practical inspiration for evaluating the effect of the new policy of inquiry and improving the market-oriented pricing mechanism.

Keywords: ASR Microelectronics; new inquiry rules; IPO break; pricing efficiency; registration-based system.

1. Introduction

China's capital market is undergoing a profound change in the reform of the registration system, the core of which is to return the value judgement power of enterprises to the market. Against this background, the pricing mechanism of new stock issuance, as the „baton" of resource allocation, has become the key to the success or failure of reform. However, the reform process was not smooth sailing: in the early days,

ISSN 2959-6130

there were behaviours of institutional investors such as „group quotations“ on the Science and Technology Innovation Board and the GEM Board; in response, the regulatory authorities introduced new inquiry regulations to curb such phenomena [1]. It is worth noting that after the implementation of the new regulations, although the „group quotation“ has been effectively suppressed, the market has ushered in a new round of new stock „breakout“ wave. This shift shows that the core contradictions of the IPO pricing mechanism have evolved and urgently need to be studied in depth.

This research focuses on the dynamic evolution of the IPO pricing mechanism under the registration system. The paper focuses on the case of the serious breakout of the initial public offering of ASR Microelectronics Co., Ltd. (hereinafter referred to as „ASR Microelectronics“), and focuses on how the new inquiry regulations have reshaped the logic of IPO pricing. The study will discuss how the game between the issuer‘s overvaluation appeal and the rational judgement of the market becomes dominant after the „group quotation“ is institutionally eliminated and finally realises the compulsory return of value through breakout.

This research has important theoretical and practical significance. At the theoretical level, it enriches the relevant research on the efficiency of IPO pricing in the process of registration reform and provides a vivid sample of the market returning from irrational games to value discovery under the background of institutional change. At the practical level, the analysis of the typical „negative case“ of ASR Microelectronics can provide a valuable empirical basis and decision-making reference for regulators to evaluate the policy effect, issuers to test their own value, intermediaries to improve their pricing capabilities, and investors to strengthen their risk awareness.

At present, research on IPO pricing under China‘s registration-based reform mainly focuses on three aspects: administrative adjustments to improve pricing efficiency, new inquiry rules to prohibit „group quotation“, and conventional factors explaining the IPO break phenomenon. However, there are still research gaps in exploring negative cases of institutional cognitive interactions, the theoretical framework of IPO breaks after reform, and game analysis of pricing behavior. This study fills these gaps by examining the impact of the new inquiry rules on IPO pricing relationships through the ASR Microelectronics case.

This paper first sorts out the institutional background of registration-based reform and inquiry mechanisms, then conducts an in-depth analysis of the ASR Microelectronics case and finally draws conclusions and puts forward specific suggestions to promote the further development of registration-based system reforms.

2. The Registration-Based System and IPO Pricing

2.1 Registration-Based System

China’s stock issuance system has undergone a profound transformation, evolving from the “approval-based system” to the “verification-based system,” and finally entering the current “registration-based system” era. Under the approval-based system, issuance quotas were allocated by administrative planning. During the verification-based period, regulatory authorities strictly reviewed the financial conditions and sustainable profitability of companies.

The current stage is the registration-based system era. Improving the pricing efficiency of the capital market is a core goal of the full implementation of the registration-based system [2]. Companies now have full autonomy to determine their own offering prices, which are mainly determined through market inquiries. Regulatory authorities no longer assess investment value but focus on the authenticity, accuracy, and completeness of information disclosure. It is within this institutional context that the new inquiry regulations introduced alongside the registration-based system have directly reshaped the IPO pricing environment. These rules form the direct institutional background essential for analyzing cases such as that of ASR Microelectronics.

2.2 IPO Pricing

Market inquiry refers to the core link of the enterprise to determine the final issue price by asking professional institutional investors for quotations during the initial public offering of shares. First of all, the issuer and the underwriter determine the preliminary price range according to the enterprise valuation. Then, the underwriter organised a road show to introduce the enterprise profile to qualified professional institutional investors such as fund management companies and securities companies. After in-depth research, these institutional investors submit quotations with the subscription price and quantity within the specified time. After the underwriter collects all the quotations, it first excludes the highest part of the quotations (usually not less than 10% of the total amount), and then comprehensively considers factors such as the issuer‘s financing needs, the valuation level of similar companies and the market environment according to the distribution of the remaining quotations, and finally negotiates with the issuer to determine the issuance price.

Market inquiry is a key link in the reform of the registration system. For the issuer, more reasonable financing valuation can be achieved through market inquiry; for investors, the quotation process gives them the right to value discovery and participate in pricing; for the mar-

ket as a whole, it effectively improves the efficiency of resource allocation and breaks the myth of „new shares are invincible“ under the approval system in the past. It is through such an open and transparent inquiry process that the capital market has truly realised the core function of price discovery and promoted the effective docking of investment and financing [3].

2.3 The New Inquiry Mechanism

The new inquiry regulations, implemented by the Sci-Tech Innovation Board and the ChiNext Board in 2021, represent a significant institutional adjustment. They aim to further refine the market-oriented pricing mechanism under the registration-based system. Its core is to improve the efficiency and rationality of new stock pricing by optimising the inquiry rules. The new regulations mainly include the following key contents: First, adjust the elimination ratio of high prices. The original provision of „excluding some of the highest applications in all quotations, and the elimination rate is not less than 10%“ has been revised to „no more than 3%“, which significantly relaxes the scope of elimination of high-priced quotations. Second, optimise the pricing constraint mechanism. The cancellation of the requirement of linking the pricing of the issuance of new shares to the subscription arrangement and the number of special announcements of investment risks has enhanced the flexibility of issuance pricing. Third, strengthen the supervision of quotation behaviour. Clearly include the violation of the inquiry into the management of breach of trust, strengthen the supervision and restraint of the inquiry process, and prevent non-standard behaviour in the quotation. Fourth, improve the information disclosure requirements. Add detailed provisions on the disclosure of key quotation information to improve the transparency of the inquiry process. These institutional arrangements together constitute the core content of the new regulations. Their fundamental purpose is to promote the pricing of new shares to more truly reflect the supply and demand relationship in the market and to better play the resource allocation function of the capital market [4].

3. Analyse the Case of ASR

3.1 IPO Process

Founded in 2015, ASR Microelectronics is a platform chip enterprise focusing on wireless communication chips. Its main business is research and development and sales of cellular communication (4G/5G) and non-cellular Internet chips.

The company‘s ability to go public is mainly based on three reasons: from the national strategy, its baseband chip field is a key link to realise domestic substitution and solve the „stuck neck“ problem; from the market system, the Science and Technology Innovation Board registration system includes unprofitable enterprises, providing listing opportunities for hard technology companies that continue to invest in research and development; in view of its own needs, the investment in chip research and development is huge, and an IPO can provide financial support for its subsequent technology research and development and operation.

ASR Microelectronics launched the IPO process of the Science and Technology Innovation Board in December 2021. On December 14, the China Securities Regulatory Commission issued the „Approval of the Approval of the Registration of the Initial Public Offering of Shares of ASR Microelectronics Co., Ltd.“ (Securities Regulatory License [2021] No. 3936) officially marked the listing license of ASR Microelectronics. On December 24, ASR Microelectronics issued a letter of intent to offer shares and launched the issuance process at the same time. On December 29, ASR Microelectronics started the inquiry process. During the preliminary inquiry period, a total of 9,633 allocation objects managed by 389 offline investors participated in the quotation, with a quotation range of 12.59 yuan/share to 299.50 yuan/share. By eliminating the invalid quotation and the highest quotation and consulting with the sponsoring agency Haitong Securities, the issuance price was finally determined to be 164.54 yuan/share. On December 31, ASR Microelectronics held an online roadshow to carry out promotional activities for potential investors. According to the listing announcement issued by ASR Microelectronics on January 13, 2022, the number of shares issued in this public offering is 41,830.89 million shares, accounting for 10% of the total share capital after issuance; a total of 10 investors participated in the strategic allocation, and the final number of strategic allocation issuance is 6,2837.13 million shares, accounting for 15.02% of the issuance quantity. On January 14, 2022, ASR Microelectronics was officially listed on the Science and Technology Innovation Board.

3.2 Break Performance

As shown in Table 1, on the first day of opening, the stock price of ASR Microelectronics was broken. The opening price of ASR Microelectronics was 130 yuan/share, plummeting by 20.99% compared with the issue price, setting a record decline in the opening of A shares in the past ten years. Since the opening of the market, its stock price has fallen all the way, and the stock price even fell to 105.88 yuan/share at one time, a drop of 35.7%. By the close, ASR Microelectronics reported a closing price of 109 yuan per share, representing a decline of 33.75% from the issue price, and the market value also shrank from 68.8 billion yuan at the time of issuance to 45.595 billion yuan. However, the breakout of ASR Microelectronics‘s open-

ISSN 2959-6130

ing on the first day was just the beginning. In the following trading days, the company's stock price continued to decline. As shown in Table 1, the stock price of ASR Microelectronics has continued to decline over the five trading days following its listing, and the change of hands rate has also decreased rapidly. It can be seen that the market sentiment is greatly affected by the decline of the company on the first day. Within three months after listing, the company's stock price had been cut below 60 yuan/share. As of April 25, 2022, its closing price has dropped to 59.61 yuan, down more than 63% from the issue price.

Table 1. Daily stock price performance of ASR Microelectronics in the first five trading days post-IPO

	2022-1-14	2022-1-15	2022-1-16	2022-1-17	2022-1-18
Stock Price (CNY per share)	109.00	105.72	102.85	104.12	103.74
Percentage changes(%)	-33.75	-3.01	-2.77	1.21	-0.37
Turnover Rates(%)	53.09	24.46	17.68	17.68	17.68

Data source: Wind Financial Terminal

3.3 Break Cause Analysis

3.3.1 Internal causes

Deteriorating Profitability: The wireless communication chip industry has the characteristics of „high investment, long cycle and slow return", which has laid a potential risk for the financial situation of ASR Microelectronics. As shown in Table 2, Pre-IPO, the company reported consecutive annual net profit losses from 2017-2021, accumulating over 6 billion yuan in total losses. A one-time share-based payment expense of 1.767 billion yuan in 2020 particularly distorted profitability assessment. Post-IPO, losses continued despite revenue growth from 2.14 billion to 3.386 billion yuan (2022-2024, ~24% CAGR), with cumulative net losses reaching 1.445 billion yuan.

Table 2. Profitability of ASR Microelectronics from 2017 to 2024

	2017	2018	2019	2020	2021	2022	2023	2024
Net Profit Attributable to Owners of the Parent Company(CNY 100 million)	-9.98	-5.37	-5.83	-23.27	-5.89	-2.52	-5.06	-6.93

Data source: Wind Financial Terminal

As shown in Table 3, the core issue remains mismatched R&D investment and revenue scale - 2024 R&D expense ratio exceeded 50%, while core 2G-4G chip gross margins stayed below 20%, far below industry leaders like Qualcomm and MediaTek. This "revenue growth without profit" pattern undermined cash flow support and investor confidence.

Table 3. Operating revenue and R&D expenses of ASR Microelectronics (2022-2024)

	2022	2023	2024
Operating Revenue(CNY 100 million)	21.40	26.00	33.86
R&D Expenses(CNY 100 million)	10.06	11.16	12.42
R&D Expense Ratio(%)	46.94%	42.92%	36.68%

Data source: Wind Financial Terminal

Excessive Valuation Deviation: In accordance with STAR Market rules that allow high-valuation listings, ASR adopted the price-to-sales (P/S) ratio as its core valuation

indicator. The issue price of 164.54 yuan implied a 2020 P/S ratio of 63.67x, significantly higher than the market average P/S ratio of 49.8x for the computer, communication, and electronic equipment sectors. The listed market value of ASR Microelectronics of 68.827 billion yuan corresponds to the revenue scale of only 1.081 billion yuan in 2020. This valuation structure of "small revenue, large market capitalisation" makes the pricing seriously deviate from the reasonable range, and the referenceability is greatly reduced.

3.3.2 External Causes

The new inquiry regulations of the Science and Technology Innovation Board implemented in October 2021 cancelled the pricing restriction of „the lower value among four pricing benchmarks", that is, allowing the issuance price to break through the industry average. This system adjustment directly leads to the imbalance in the pricing game of ASR Microelectronics. According to the company's issuance announcement, the quotation range of this preliminary inquiry is from 12.59 yuan/share to 299.50 yuan/share, and the price difference between the two is as high as 23 times, showing the characteristics of extreme dispersion. In the pricing process, the issuer and the sponsoring institution (Haitong Securities) only excluded the highest quotation allocation objects of 1.0054% (134), but classified 3,464 allocation objects with a declared price of less than 164.54 yuan/share as „low-price exclusion", accounting for more than 36%, leading the company's final pricing of 164.54 yuan/share close to the upper limit of „the lower value among four pricing benchmarks" (164.5475 yuan/share). The essence of this pricing strategy is that the seller uses the new regulations to set the issue price above the actual willingness of the market to undertake. In this case, for sponsoring institutions, a high issuance price can bring them higher underwriting fees; for issuing companies, a high issuance price can bring them more financing. The convergence of interests of both sides has resulted in a situation where the issuance price of new shares is too high, and the risk of high-priced issuance is entirely borne by investors in the secondary market.

The listing time of ASR Microelectronics happened to be a double adjustment period between the A-share market and the semiconductor industry. Judging from the market sentiment, the Science and Technology Innovation 50 Index showed a continuous downward trend in January 2022. From January 4th to January 28th, the index fell by 12.3% cumulatively, including a single-day decline of 2.20% on January 4 and another 2.54% on January 5, and the market's risk preference decreased significantly. Although the company's Science and Technology Innovation 50 Index rose slightly by 1.34% on the day of listing (January 14), under the overall weak situation, the ability of funds to handle high-priced new stocks was seriously insufficient. From the perspective of the semiconductor industry, the global semiconductor industry will enter a cyclical downward channel in 2022. Affected by the weak demand for consumer electronics, global smartphone shipments fell by 9.1%, and domestic 5G mobile phone shipments fell by 20.2% year-on-year, which directly led to a significant decline in market demand for baseband chips. At the same time, the Federal Reserve's interest rate hike has caused a tightening of global liquidity, and the valuation of technology stocks with significant growth attributes has generally been compressed. This superimposed environment of both the market and industry has become an important external pusher for its breakout.

4. New Rules of IPO Pricing

4.1 Policy Implications from ASR's Cases

Key regulatory adjustments, including the removal of the „the lower value among four pricing benchmarks" pricing restriction and the optimization of quotation elimination mechanisms, have effectively dismantled the long-standing „group quotation" phenomenon, significantly improving pricing efficiency [5]. The 54% break rate for STAR Market newcomers in 2022 substantially exceeded the single-digit break rates observed under the prior approval-based system. This trend aligns more closely with mature markets, where break rates stabilize around 30% in Hong Kong and 36% in the U.S. markets. ASR's case illustrates a market-significant transition from the „can't-lose" IPO myth toward a rational value-based assessment framework.

A larger offering size and a higher overallotment ratio reduce the likelihood of post-IPO selling pressure. At the same time, upward adjustments to issue prices are more likely to lead to negative initial-day returns [6].

While activating the vitality of the market, the new inquiry regulations also bring new challenges to the imbalance of the interests of issuers and sponsoring institutions and investors, the core manifestation of which is the pricing conflict between „financing demand" and „investment security". The pricing strategy of high issuance price greatly meets the issuer's demand for financing, bringing high consumption to the sponsoring institution, but completely transferring the valuation risk to the secondary market. In fact, this imbalance causes damage to both sides. The break-loss of newly listed stocks not only causes investors to incur substantial losses, but also prevents issuers and sponsoring institutions from obtaining the high returns they expect. How to find a balance between safeguarding the financing needs of enterprises and safeguarding the interests of investors has become the core proposition that needs to be solved urgently after the implementation of

ISSN 2959-6130

the new inquiry regulations.

4.2 Recommendations

The issuer must abandon the inertial thinking of „heavy financing, light return" and „listing is the peak" formed under the approval system. First, issuers should establish an objective understanding of their own value and should not blindly pursue high valuation and high fundraising from the fundamentals of the company. The quantity and quality of risk disclosure are closely related to IPO breaks [7]. Additionally, the narrative characteristics of prospectuses have a significant impact on the probability of IPO breaks [8]. A higher degree of similarity in prospectus content, lower clarity, and more obvious negative emotional tendencies are associated with a higher probability of IPO breaks and lower initial returns [9]. Companies should fully disclose risks, especially key risks such as sustainable profitability and market competition, and manage market expectations well. Second, the issuer should focus on long-term development and focus on the long-term value creation ability of the investment project, rather than the low and low stock price. A reasonable or even slightly discounted issuance is conducive to the introduction of real long-term investors and lays a solid foundation for the stability of the market and the long-term development of the company.

As a core intermediary connecting issuers and investors, the role of investment banks should change from a simple „channel" to a real „value discoverer" and a „risk pricer". First, for science and technology innovation enterprises such as ASR Microelectronics, which are in the early stage of development and may not be profitable, investment banks need to have more complex valuation modelling capabilities and be able to clearly explain their pricing logic to the market. Second, underwriters should not simply cater to the issuer's overvaluation demands but should give full play to the role of pricing balance based on professional judgement and market demand. In the process of roadshow and pricing, it should convey market feedback truthfully and comprehensively and dare to suggest that the issuer accept a more attractive and secure issuance price in order to maintain market credibility and long-term interests.

The new inquiry regulations give more responsibility for investment decision-making to investors. First, institutional investors should establish an independent and in-depth research system for innovative enterprises, no longer rely on the risk-free arbitrage brought by „group quotation", and dare to say „no" to unreasonable overvaluation. Second, as a stable ballast stone for the market, long-term investors such as public funds and social security funds should play a leading role and adhere to the principle of value investment. Their quotations and investment behaviours should transmit rational signals, not short-term speculation.

The core task of the regulatory level is to maintain a fair market order, not to directly intervene in pricing. First, the regulatory authorities should accept the normal discovery image, understand that this is the embodiment of the decisive role of the market in resource allocation, and continue to focus on ensuring the truth, accuracy and completeness of information disclosure, and ensuring the fairness, impartiality and transparency of the pricing process. Second, the regulatory mechanism can further improve the mechanism supporting the issuance pricing, so that the market can fully play the game and accelerate price discovery; and severely crack down on any form of collusive quotation behaviour, and consolidate the reform results of the new inquiry regulations [10].

5. Conclusion

Taking the case of the serious breakout of ASR Microelectronics's IPO as the starting point, this article deeply analyses the profound impact of the new inquiry regulations under the registration system on the IPO pricing mechanism. The following core conclusions are drawn from the study: First of all, the new regulations of the Science and Technology Innovation Board have successfully achieved the primary goal of its institutional design, that is, effectively suppressing the market-distorting behaviour of „group quotation", so that the pricing power of the market has been freed from the collusion of a few institutions and returned to a wider range of investor groups. Secondly, after the elimination of the „group quotation", the core contradiction of IPO pricing is clearly exposed as the conflict between the overvaluation demands of issuers and investment banks and investors' rational judgement based on fundamentals. The break of ASR Microelectronics is not a market failure, but a compulsory „value return" to the overvaluation that is detached from the fundamentals after the market pricing mechanism eliminates interference. Finally, the case reveals a new challenge in the deepening period of the registration system: there is still an imbalance of interest in the current pricing game in the short term. Underwriters and issuers are motivated to use the rule window to pursue a higher issue price, and the resulting valuation risks are mainly borne by secondary market investors. The collapse of ASR Microelectronics is a concentrated manifestation of this imbalance.

As an in-depth case study, although typical, this study still has limitations. The conclusion of a single case is that its universality needs to be tested by more samples. On this basis, future research can adopt large sample empirical analysis to quantify and compare the systematic differences between broken companies and non-broken companies in terms of fundamentals, valuation, investor structure, etc. before and after the implementation of the new regu-

lations.

In addition, the perspective of research can be further expanded. For example, explore in depth the unique challenges faced by science and technology innovation enterprises with different industry attributes under the new pricing mechanism; or track and analyse the actual effect of stable price tools such as the „green shoe mechanism“ in suppressing the first day‘s hair break. With the implementation of the registration system in the whole market, the follow-up study of this continuously evolving pricing ecosystem will have long-term theoretical value and practical significance.

References

[1] Li Jiahui, Li Rui. IPO policy and IPO underpricing: Evidence from the registration-based IPO reform in China. Finance Research Letters, 2022, 47(PA).

[2] Wang S, Zhang N. Registration-based Reform, Supply Chain Relationships and IPO Pricing Efficiency. Contemporary Finance & Economics, 2024, (7): 88-103.

[3] Zhou Chun, Zhou Wenyu, Lu Jiajun. The Short-Term Impacts of the Registration-Based IPO Reform in China: Towards a More Sustainable Equity Market. Sustainability, 2021, 13(20): 11365-11365.

[4] Qi Deng, et al. Evolution of Pricing Efficiency for Chinese IPOs with Regulatory Reforms. Review of Pacific Basin Financial Markets and Policies, 2025, 28(02).

[5] Mengze Li. The Impact of Full Registration System on IPO Pricing Efficiency. Scientific Journal of Economics and Management Research, 2024, 6(12): 164-168.

[6] Jacqueline Rossovski, Brian Lucey, Pia Helbing. Determinants of IPO Overpricing. British Journal of Management, 2024, 36(1): 383-399.

[7] He X, Gu X, Liu H. The Impact of Risk Disclosure on New Share Break under the Registration-based System. Nankai Business Review, 2023, 26(3): 86-100.

[8] Yue Ma, Yongqing Li, Zijie Li. Are investors influenced by the textual information in IPO prospectuses? Examining IPO pricing based on textual information management. International Review of Financial Analysis, 2025, 107: 104608-104608.

[9] Xundi Diao, Meiling Cai. IPO Breaking Anomaly in China: A Prospectus-Based Textual Analysis. Accounting & Finance, 2025, 65(3): 2701-2723.

[10] Sun J. International Comparison and Enlightenment of Greenshoe Mechanism. Friends of Accounting, 2020, (15): 43-47.