

# A Review of IPO Price Stabilization Research in Asia

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## Abstract

**Purpose:** The purposes of this paper are to review the current research status of IPO price stabilization in Asia, and identify potential research gap about IPO price stabilization for further study.

**Design/methodology/approach:** The major approach of this paper is to provide an integrative review and discussion for previous theoretical arguments and empirical studies to examine the phenomenon of IPO price stabilization particularly in Asia.

**Findings:** This paper finds that most current IPO price stabilization researches are conducted in United States, there are still aspects of this topic waiting to be unveiled in Asia. As the information disclosure and market data become more transparent in many Asian markets, potential research areas may include the underwriter's intraday stabilizing activity, their ownership and price stabilization, and factors that determine their action to stabilize or the exercise of OAO.

**Originality/value:** This paper offers possible future research direction for scholars who are interested in issues related to IPO underwriters and price stabilization in Asia.

**Keywords:** Initial Public Offering, Price stabilization, Underwriter, Asian IPOs, Capital market, Over-allotment Option

## 1. Introduction

An Initial Public Offering, also known as IPO, refers to the process where a private corporation issues its shares in a stock exchange and make these shares available to the public for purchasing. Currently, most of literature focus on the IPO short-term underpricing and long-term performance around the world (Ritter, 1984; Beatty and Ritter, 1986; Rock, 1986; Allen and Faulhaber, 1989; Benveniste and Spindt, 1989; Welch, 1992; Kim et al., 1995; Hamao et al., 2000; Chung et al., 2016; Dumrongwong 2020; Li et al. 2020; Duong et al. 2021; Peng et al., 2021). Meanwhile, relatively little attention has been paid to the activities of underwriters in the aftermarket of IPO. Price stabilization, which is common in various markets, is one of those aftermarket activities that is utilized by underwriters frequently in IPO events. Price stabilization refers to the process of purchasing of a typical security to prevent or retard a decrease in its open market price. This paper aims to review the research status of IPO price stabilization in Asia, and identify the research directions about IPO price stabilization for future study. Particularly, potential future research can be done in issues such as underwriters' intraday stabilizing actions, various ownerships of underwriters and how the ownership might

affect the underwriter stabilizing activities, and factors that may cause underwriters' decision to stabilize or the exercise of over-allotment option.

The rest of the paper is organized as follows. Section 2 introduces the underwriter's major aftermarket activities in IPO price stabilization, discusses the possible practical and theoretical explanations for price stabilization, and summarizes the existing researches in price stabilization in Asia, respectively. Section 3 discusses the limitation of the research and prospective research directions. Section 4 concludes.

## **2. Literature Review**

### ***2.1 The Underwriter's Activities in Price Stabilization***

Aggarwal (2000) typically categorizes three types of underwriters' price stabilization activities for their purpose of preventing a decline in IPO market price. Namely, they are (1) the pure stabilization, (2) aftermarket short covering and (3) penalty bid.

#### ***2.1.1 Pure Stabilization***

The pure stabilization is strictly regulated by authorities and requires very thorough information disclosure. Shares that are pure stabilized, need to be flagged themselves as "stabilizing bid" which would convey a message to the market that this offering is weak. This kind of price stabilization rarely happens in the real market and is usually not the target for research.

#### ***2.1.2 Aftermarket Short Covering***

The aftermarket short covering happens when underwriters initially sell more shares than the original offering amount and establish a short position before IPO events. Then the lead underwriter will cover the short position by either exercising the over-allotment option (OAO), or directly buying the shares from the secondary market, depending on the IPO market share price. OAO provision gives underwriters the "option" to sell additional shares that the IPO issuing firm originally planned (the maximum limit for additional shares is usually 15%). In the aftermarket short covering process, if the market price of the IPO is above the offer price, underwriters will exercise the OAO (issuing additional shares); if the market price is below the offer price, underwriters will purchase the shares directly from the aftermarket, noticing the buying price cannot exceed the offer price (Lewellen, 2006). Practically, the aftermarket short covering is the major activity conducted by the underwriter to stabilize IPO share price across the global markets.

#### ***2.1.3 Penalty Bid***

The penalty bid is designed to control or penalize the "flipping" of shares. Flipping usually happens when the shares received by investors in the initial allocation have been sold in the immediate secondary market. When the share prices rise shortly after the IPO, early investors might sell their shares so that they can realize a quick gain, thus causes the flipping. If the demand for the IPO stock is weak, the selling pressures caused by flipping will force underwriters to repurchase these shares, or "stabilize the price", otherwise underwriters would have to witness the share price decline sharply from its offer price. Therefore, underwriters utilize the "penalty bid" to punish members of distributing groups whose clients flip, commonly by cutting their selling concessions.

### ***2.2 Price Stabilization Management Process***

Generally speaking, underwriters can stabilize IPO price by using a combination of short covering, penalty bids, and exercise of OAO in the aftermarket (Aggarwal, 2000). Specifically, underwriters can establish a short position and include the penalty bid clause in the IPO

underwriting contract. Short covering in the aftermarket enables them to absorb the flipping shares and stabilize the share price. Including the penalty bid can also help underwriters to mitigate the selling pressure caused by flippers. As shown in Figure 1, if the share price rises above the offer price, the OAO will be exercised to cover the short position. If the share price declines below the offer price, price support will be provided by directly buying from the aftermarket.

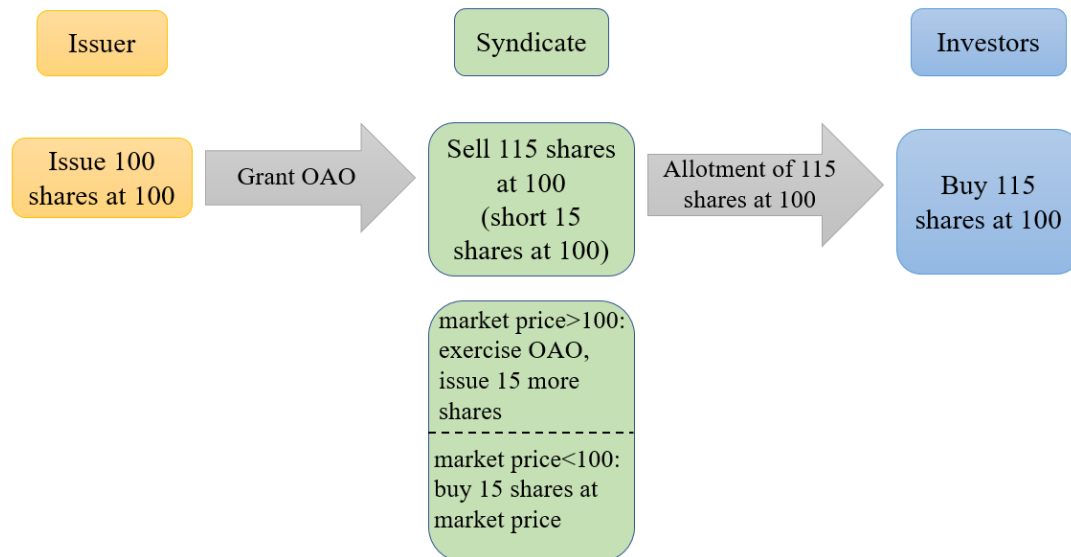


Figure 1. The process of price stabilization

### 2.3 Explanation for Price Stabilization

Nowadays, including the price stabilization is a standard practice in capital markets globally. In fact, price stabilization has become one of the most crucial services that underwriters provide to issuing firms during the IPO event (Bajo et al., 2017). Several reasons have been proposed for illustrating why price stabilization is prevalent around the world.

#### 2.3.1 Protecting Underwriter's Reputation

Some researches attribute underwriters' action for price stabilization to their need for protecting their own reputation. Mazouz et al. (2012) examine the IPO data in Hong Kong market and suggest that stabilization can be used by underwriters to protect their reputations. From investor's perspective, Lewellen (2006) also emphasizes the role of stabilization in protecting an underwriter's reputation. Specifically, larger underwriters and investment banks with retail brokerage operations tend to stabilize more, originating from the intention that they want to protect their reputation in front of their clients. On the contrary, Nanda and Yun (1997) propose that overpricing an issue can hurt the underwriters' reputation and result in decline of their future income because of the potential legal costs related to legal actions taken by investors. Considering this, underwriters may decide to stabilize so that investors' losses from purchasing overpriced IPOs can be alleviated, meanwhile the underwriter's reputation can be maintained.

#### 2.3.2 Earning profit from Price Stabilization

Besides protecting underwriter reputation, another possible explanation for underwriters to stabilize is to maximize profits from such action (Fishe, 2002). If the underwriter cannot stabilize IPO price, the behavior of "flippers" may exert selling pressure and consequently push

the market price below the offer price. To deal with this situation, underwriters can set a lower offer price (underpricing). However, this strategy will reduce underwriters' revenues. Alternatively, underwriters may decide to oversell the IPO issue and expect the aftermarket share price will descend. By doing this, underwriters could cover their short position at the lower prices and earn trading profits. After investigating the IPOs in NASDAQ, Ellis et al. (2000) suggest that the underwriter acts like a market maker by involving in price stabilization activities and receives compensation mostly from the commission fees, meanwhile their aftermarket trading also generates positive profits.

Additionally, the OAO also can contribute to the underwriter's profits from price stabilization. Typically, underwriters could oversell, or take a short position of IPO issues only if OAO is included in the IPO underwriting agreements with the issuing firms. Studies in the United States find that the gross spreads underwriters received is 7% for medium size IPOs (Chen and Ritter, 2000; Abrahamson et al., 2011). When the OAO is included in the clause, the gross proceeds that underwriters charged increase to approximately 8.5% of the total IPO proceeds according to a sample of 6,814 U.S. IPOs from 1983 to 2007 (Bajo et al., 2017). Boehmer and Fishe (2004) conduct a case study on one of the largest US IPOs and find that according to its tick-by-tick data, the lead underwriter tends to "intervene", or stabilize, when the share price drops and accordingly profiting greater than just exercising the OAO when price goes up.

In summary, if the IPO share price drops below the offer price, underwriters could stabilize the stock and cover the short position by purchasing stock directly at the market price. While if the share price goes up, underwriters could exercise the OAO to cover the short position by requesting additional shares from the issuing firms. Both situations do not expose underwriters under any price risk and provide an extra potential source of revenue (from OAO and aftermarket trading profit).

### ***2.3.3 Serving as a Substitute for Underpricing***

From the theoretical perspective, the stabilization action taken by underwriters during the post-IPO events might serve as a substitutional mechanism for underpricing. Underpricing described here refers to the phenomenon where a positive first-day stock return can be achieved after the IPO event (Dumrongwong, 2020). It is widely accepted that underpricing is one element of underwriters' IPO marketing strategies (Baron, 1982; Rock, 1986; Allen and Faulhaber, 1989; Benveniste and Spindt, 1989; Chowdhry and Nanda, 1996; Asquith et al., 1998). Previous scholars have proposed several theories to explain the existence of underpricing in IPO aftermarket. Rock (1986) proposes the well-known theory of "winner's curse", also known as the adverse selection, faced by potential investors to explain the phenomenon of underpricing. This theory suggests that uninformed investors will get the shares they ask for because those informed investors do not want them based on informed investors' superior information. As a result, uninformed investors will have to face the issue of "winner's curse", or adverse selection, and receive a larger portion of "lemon" and less portion of "peach". Therefore, underpricing can be used as a compensation for uninformed investors to make up for the cost from adverse selection. Welch (1992) uses an alternative approach to explain underpricing by proposing the information cascade effect. The theory suggests that investors will not purchase stocks even when they obtain favorable information if they find that nobody else wants to buy. To prevent this, underpricing of IPO may be used to attract the first batch of potential investors to buy the stock so that later investors will be induced to buy no matter what own information they are holding.

We can view price stabilization taken by underwriters as a substitute for underpricing because the necessity for keeping the IPO stock price at or above the offer price (which is stabilizing) can be the same as the reasons for underpricing mentioned earlier. Specifically, price stabilization provides uninformed investors with ex post compensation because the information

possessed by informed investors become public via the IPO subscription level and aftermarket trading. In comparison, underpricing, which is an ex ante compensation, benefits both informed and uninformed investors in the form of lower offer price (Chowdhry and Nanda, 1996). Price stabilization also helps to prevent information cascade. If the aftermarket stock price is below the offer price (no price support provided by underwriters), potential investors might infer those previous buyers possessed bad information towards the stock and will renege their buying intentions. On the contrary, if underwriters stabilize the price, the price support action taken will probably stop the cascade from developing.

#### ***2.4 Empirical Studies of Price Stabilization in Asia***

Most previous research focus on price stabilization activities and phenomenon in the U.S. market (Hanley et al., 1993; Ruud, 1993; Schultz and Zaman, 1994; Chowdhry and Nanda, 1996; Asquith et al., 1998; Aggarwal, 2000; Ellis et al., 2000; Fische, 2002; Boehmer and Fische, 2004; Lewellen, 2006; Jenkinson and Jones, 2007; Bajo et al., 2017; Boulton and Braga-Alves, 2020). To best of our knowledge, IPO price stabilization researches in Asia are as follows.

##### ***2.4.1 Price Stabilization Research in China Mainland***

The current valid legislation relates to the price stabilization activity of underwriters in China Mainland is Opinions on Piloting Overallotment Option (SEC Issue no. [2001]112) issued by the China Securities Regulatory Commission on 3rd September, 2001. It also states the maximum amount of OAO cannot exceed 15% of the total issues originally planned. Liu and Liu (2009) examine the IPOs with OAO provision in China and find that the overselling scale and the extent of OAO exercised are directly affected by the offer price determined by underwriters. Ye et al. (2014) study the decision-making process of underwriters in China and find that underwriters' reputation and OAO will lower the offer price, particularly, better the underwriters' reputation, larger the reputation cost.

##### ***2.4.2 Price Stabilization Research in Hong Kong***

The Securities and Futures (Price Stabilizing) Rules (Cap. 571 sub. leg. W) enforced on 1st April, 2003 is the legislation that governs price stabilization activity in Hong Kong. It set the maximum amount of OAO (the short position) to be 15%, unlike the U.S. SEC, it does not permit any naked short position established by underwriters.

Mazouz et al. (2012) find that underwriters in Hong Kong provide price support shortly after the IPO events, especially when market is cold and the demand for IPO stock is weak. Quboa et al. (2017) conduct a clinical study using the Thomson Reuters Tick History data and stabilization information from HKEx of a specific firm, whose IPO was listed in HKEx and its Global Depository Shares (GDS) were simultaneously listed on EuronextParis. Their finding suggests that underwriters' stabilizing trades in both markets generate more profits than their underwriting commissions, specifically, the trade profit is roughly 2.72% of the gross proceeds and the total commission is 2.31%, respectively.

##### ***2.4.3 Price Stabilization Research in Japan***

In Japan, the process of IPO price formation is more transparent than that of U.S. (Jiao et al., 2017). IPO estimated offer price and OAO provision are included in a preliminary prospectus, following by a broad filing range of price in a First Revised Prospectus distributed after the roadshow and before the building of order book. The offer price is finalized in the Second Revised Prospectus approximately 7 market days later. However, the OAO are less common in Japan comparing to the U.S. due to the fact that OAO is allowed in Japan only since February 2002 (Kutsuna et al., 2009).



Jiao et al. (2017) use IPO market data in Japan and find that OAO provision is beneficial for both the underwriter and issuer, from the aspects of lower total issue cost, more precise pricing, larger scale of offerings, and better performance in the secondary market.

#### **2.4.4 Price Stabilization Research in Indonesia**

Price stabilization is permitted by Article 94 of the Capital Market Law of Indonesia. The conditions related to price stabilization include: the stabilizing price cannot differ from the official share price, stabilization is contemplated in the prospectus and disclose the possibility of stabilization. Husnan et al. (2015) discover that the “best” stabilization activity measure in Indonesian IPO market from 1995 to 2012 is the skewness of IPO return in the first 30 market days. They also find that underwriters have the tendency to stabilize on more expensive IPOs.

#### **2.4.5 Price Stabilization Research in Malaysia**

In Malaysia, the IPO pricing mechanism that are widely used is fixed-pricing (Yong, 2014; Albada and Yong, 2017). Yong (2014) examines 283 Malaysian IPOs using fixed-pricing mechanism from 2004 to 2011 and finds that it is not necessary for regulatory agencies of Bursa Malaysia to consider implementing the price stabilization mechanism for IPOs with fixed-price. Yong (2014) argues that IPO prices will “revolve” around their intrinsic values immediately in the aftermarket.

### **3. Discussion**

#### **3.1 Limitation**

Meanwhile, the limitation needs to be recognized for this paper. Particularly, only the empirical results from limited Asian countries, including China (including both Mainland and Hong Kong), Japan, Indonesia and Malaysia are presented. This limitation is mostly attributed to the fact that the languages used in Asia vary, which causes barriers for accessing research published in languages besides English and Chinese. Thus, there are possibly still potential empirical studies related to IPO price stabilization published in other languages that this paper might miss.

#### **3.2 Suggestion for Future Research**

Besides the existing research discussed earlier, still, there are some issues that can be further examined related to IPO price stabilization in Asia. As mentioned above, considering the fact that most previous studies related to IPO price stabilization focused on the U.S. market, price stabilization phenomenon and theoretical explanations discussed before may not be in consistent with the situations in Asian countries. For instance, the widely used proxy, the bid-ask spread, for detecting price stabilization activity conducted by underwriters in U.S., is developed by Hanley et al. (1993). The usage of the measurement for detecting price stabilization activity in U.S. is constrained by the unavailable or unobservable data and information. While in Asia, the measurements for underwriters' stabilizing actions can vary, depending on the different levels of information disclosure transparency. For example, in China mainland and Hong Kong, authorities require underwriters to report the amount of shares purchased, the price range of shares purchased, the extent to which the OAO is exercised during the stabilizing period. Thus, the "localization" of parameter for price stabilization action done by underwriters in different Asian capital markets can be developed by researchers in order to better understand this particular aftermarket activity.

In addition, the role of underwriters play in the process of stabilizing can be further examined in Asian market. Is the stabilization affected by the intraday market price fluctuation? Do different types of ownerships (i.e. local private, international, SOE) of underwriters affect their

action for price stabilizing? Will issuer-level factors, such as the pre-IPO riskiness or profitability of the issuing firm, influence underwriters' decision to take stabilization action? Meanwhile, OAO is also a critical issue in underwriters' stabilizing process that can be carefully examined. Although Jiao et al. (2017) have argued that in Japan, IPO with the inclusion of OAO can offer benefits to both issuers and underwriters, the possible factors (i.e. the fluctuation of the share price) that may contribute to underwriters' exercise of OAO have not been revealed and explored. As the market data and information disclosure become more transparent in Asia, we leave these for future examinations.

#### **4. Conclusion**

This paper has summarized and reviewed the relevant existing studies about IPO price stabilization particularly in Asia. First, underwriters' aftermarket activities, including pure stabilization, aftermarket short covering and penalty bid are discussed. Second, this paper discusses the possible explanations for the happening of underwriters' price stabilization from both practical and theoretical perspectives. Based on the previous empirical researches, this paper suggests that the motivations for protecting the reputation of underwriters, earning monetary profits could become the practical reasons of why underwriters are engaged in price stabilization activities. Meanwhile, theoretically, price stabilization can be seen as the substitute of underpricing, which compensates uninformed investors and prevents information cascade. Also, this paper reviews the status quo of knowledge about IPO price stabilization in Asia, including China (Mainland and Hong Kong), Japan, Indonesia and Malaysia. Finally, the paper proposes that future research can be conducted into areas such as the intraday stabilization of underwriters, the ownership of underwriters and its influence on stabilizing activities, as well as factors of underwriters' decision on the exercise of OAO.

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#### **References**

- Abrahamson, M., Jenkinson, T., & Jones, H. (2011). Why Don't U.S. Issuers Demand European Fees for IPOs? *The Journal of Finance*, 66(6), 2055–2082. <https://doi.org/10.1111/j.1540-6261.2011.01699.x>
- Aggarwal, R. (2000). Stabilization Activities by Underwriters after Initial Public Offerings. *The Journal of Finance*, 55(3), 1075–1103. <https://doi.org/10.1111/0022-1082.00241>
- Albada, A., & Yong, O. (2017). IPO Research in Malaysia: A Review of Under-Pricing Phenomenon. *The International Journal of Banking and Finance*, 13(1), 95–118. <https://doi.org/10.32890/ijbf2017.13.1.8502>
- Allen, F., & Faulhaber, G. R. (1989). Signalling by underpricing in the IPO market. *Journal of Financial Economics*, 23(2), 303–323. [https://doi.org/10.1016/0304-405x\(89\)90060-3](https://doi.org/10.1016/0304-405x(89)90060-3)
- Asquith, D., Jones, J. D., & Kieschnick, R. (1998). Evidence on Price Stabilization and Underpricing in Early IPO Returns. *The Journal of Finance*, 53(5), 1759–1773. <https://doi.org/10.1111/0022-1082.00071>
- Bajo, E., Barbi, M., & Petrella, G. (2017). Do firms get what they pay for? A second thought on over-allotment option in IPOs. *The Quarterly Review of Economics and Finance*, 63, 219–232. <https://doi.org/10.1016/j.qref.2016.02.012>
- Baron, D. P. (1982). A Model of the Demand for Investment Banking Advising and Distribution Services for New Issues. *The Journal of Finance*, 37(4), 955–976. <https://doi.org/10.1111/j.1540-6261.1982.tb03591.x>

- Beatty, R. P., & Ritter, J. R. (1986). Investment banking, reputation, and the underpricing of initial public offerings. *Journal of Financial Economics*, 15(1–2), 213–232. [https://doi.org/10.1016/0304-405x\(86\)90055-3](https://doi.org/10.1016/0304-405x(86)90055-3)
- Benveniste, L. M., & Spindt, P. A. (1989). How investment bankers determine the offer price and allocation of new issues. *Journal of Financial Economics*, 24(2), 343–361. [https://doi.org/10.1016/0304-405x\(89\)90051-2](https://doi.org/10.1016/0304-405x(89)90051-2)
- Boehmer, E., & Fishe, R. P. H. (2004). Underwriter short covering in the IPO aftermarket: a clinical study. *Journal of Corporate Finance*, 10(4), 575–594. [https://doi.org/10.1016/s0929-1199\(03\)00021-x](https://doi.org/10.1016/s0929-1199(03)00021-x)
- Boulton, T. J., & Braga-Alves, M. V. (2020). Price stabilization, short selling, and IPO secondary market liquidity. *The Quarterly Review of Economics and Finance*, 76, 278–291. <https://doi.org/10.1016/j.qref.2019.09.013>
- Chen, H. C., & Ritter, J. R. (2000). The Seven Percent Solution. *The Journal of Finance*, 55(3), 1105–1131. <https://doi.org/10.1111/0022-1082.00242>
- Chowdhry, B., & Nanda, V. (1996). Stabilization, Syndication, and Pricing of IPOs. *The Journal of Financial and Quantitative Analysis*, 31(1), 25. <https://doi.org/10.2307/2331385>
- Chung, C. Y., Kim, H., & Ryu, D. (2016). Foreign investor trading and information asymmetry: evidence from a leading emerging market. *Applied Economics Letters*, 24(8), 540–544. <https://doi.org/10.1080/13504851.2016.1208349>
- Dumrongwong, K. (2020). Do institutional investors stabilize stock returns? Evidence from emerging IPO markets. *Pacific Accounting Review*, 32(4), 585–600. <https://doi.org/10.1108/par-11-2019-0145>
- Duong, H. N., Goyal, A., Kallinterakis, V., & Veeraraghavan, M. (2021). Market manipulation rules and IPO underpricing. *Journal of Corporate Finance*, 67, 101846. <https://doi.org/10.1016/j.jcorpfin.2020.101846>
- Ellis, K., Michaely, R., & O'Hara, M. (2000). When the Underwriter Is the Market Maker: An Examination of Trading in the IPO Aftermarket. *The Journal of Finance*, 55(3), 1039–1074. <https://doi.org/10.1111/0022-1082.00240>
- Fishe, R. P. H. (2002). How Stock Flippers Affect IPO Pricing and Stabilization. *The Journal of Financial and Quantitative Analysis*, 37(2), 319. <https://doi.org/10.2307/3595008>
- Hamao, Y., Packer, F., & Ritter, J. R. (2000). Institutional affiliation and the role of venture capital: Evidence from initial public offerings in Japan. *Pacific-Basin Finance Journal*, 8(5), 529–558. [https://doi.org/10.1016/s0927-538x\(00\)00026-3](https://doi.org/10.1016/s0927-538x(00)00026-3)
- Hanley, K. W., Kumar, A., & Seguin, P. J. (1993). Price stabilization in the market for new issues. *Journal of Financial Economics*, 34(2), 177–197. [https://doi.org/10.1016/0304-405x\(93\)90017-6](https://doi.org/10.1016/0304-405x(93)90017-6)
- Husnan, S., Hanafi, M. M., & Munandar, M. (2015). Price stabilization and IPO underpricing: an empirical study in the Indonesian Stock Exchange. *Journal of Indonesian Economy and Business*, 29(2). <https://doi.org/10.22146/jieb.6205>
- Jenkinson, T., & Jones, H. (2007). The Economics of IPO Stabilisation, Syndicates and Naked Shorts. *European Financial Management*, 13(4), 616–642. <https://doi.org/10.1111/j.1468-036x.2007.00376.x>
- Jiao, Y., Kutsuna, K., & Smith, R. (2017). Why do IPO issuers grant overallotment options to underwriters? *Journal of Corporate Finance*, 44, 34–47. <https://doi.org/10.1016/j.jcorpfin.2017.02.011>
- Kim, J. B., Krinsky, I., & Lee, J. (1995). The aftermarket performance of initial public offerings in Korea. *Pacific-Basin Finance Journal*, 3(4), 429–448. [https://doi.org/10.1016/0927-538x\(95\)00016-e](https://doi.org/10.1016/0927-538x(95)00016-e)



- Kutsuna, K., Smith, J. K., & Smith, R. L. (2009). Public Information, IPO Price Formation, and Long-Run Returns: Japanese Evidence. *The Journal of Finance*, 64(1), 505–546. <https://doi.org/10.1111/j.1540-6261.2008.01440.x>
- Lewellen, K. (2006). Risk, Reputation, and IPO Price Support. *The Journal of Finance*, 61(2), 613–653. <https://doi.org/10.1111/j.1540-6261.2006.00850.x>
- Li, M., Liu, D., Zhang, J., & Zhang, L. (2020). Volatile market condition, institutional constraints, and IPO anomaly: evidence from the Chinese market. *Accounting & Finance*, 61(1), 1239–1275. <https://doi.org/10.1111/acfi.12609>
- Liu, Y., & Liu, H. (2009). *Chao E Pei Shou Xuan Ze Quan Xia De Fa Xing Ding Jia Ce Lve* [Study of Pricing Strategy in IPO with Green-Shoe Option]. Shanghai, China: Journal of Systems & Management. Published.
- Mazouz, K., Agyei-Ampomah, S., Saadouni, B., & Yin, S. (2012). Stabilization and the aftermarket prices of initial public offerings. *Review of Quantitative Finance and Accounting*, 41(3), 417–439. <https://doi.org/10.1007/s11156-012-0315-y>
- Nanda, V., & Yun, Y. (1997). Reputation and Financial Intermediation: An Empirical Investigation of the Impact of IPO Mispricing on Underwriter Market Value. *Journal of Financial Intermediation*, 6(1), 39–63. <https://doi.org/10.1006/jfin.1996.0208>
- Peng, X., Jia, Y., Chan, K. C., & Wang, X. (2021). Let us work together: The impact of customer strategic alliances on IPO underpricing and post-IPO performance. *Journal of Corporate Finance*, 67, 101899. <https://doi.org/10.1016/j.jcorpfin.2021.101899>
- Quboa, Q., Saadouni, B., Shahgholian, A., & Mehandjiev, N. (2017). Detecting Underwriters Stabilisation Trades: A Clinical Study. *Lecture Notes in Business Information Processing*, 32–46. [https://doi.org/10.1007/978-3-319-52764-2\\_3](https://doi.org/10.1007/978-3-319-52764-2_3)
- Ritter, J. R. (1984). The “Hot Issue” Market of 1980. *The Journal of Business*, 57(2), 215. <https://doi.org/10.1086/296260>
- Rock, K. (1986). Why new issues are underpriced. *Journal of Financial Economics*, 15(1–2), 187–212. [https://doi.org/10.1016/0304-405x\(86\)90054-1](https://doi.org/10.1016/0304-405x(86)90054-1)
- Ruud, J. S. (1993). Underwriter price support and the IPO underpricing puzzle. *Journal of Financial Economics*, 34(2), 135–151. [https://doi.org/10.1016/0304-405x\(93\)90015-4](https://doi.org/10.1016/0304-405x(93)90015-4)
- Schultz, P. H., & Zaman, M. A. (1994). Aftermarket support and underpricing of initial public offerings. *Journal of Financial Economics*, 35(2), 199–219. [https://doi.org/10.1016/0304-405x\(94\)90004-3](https://doi.org/10.1016/0304-405x(94)90004-3)
- Welch, I. (1992). Sequential Sales, Learning, and Cascades. *The Journal of Finance*, 47(2), 695–732. <https://doi.org/10.1111/j.1540-6261.1992.tb04406.x>
- Ye, L., Ying, X., & Wang, Z. (2014). *Cheng Xiao Shang Sheng Yu, Chao E Pei Shou Xuan Ze Quan Yu IPO Ding Jia* [Underwriter Reputation, Over-allotment Option and IPO Pricing]. Guangzhou, China: South China Finance. Published.
- Yong, O. (2014). Speculative Bubble in IPOs: Evidence from Malaysian Fixed-Price IPOs. *Journal of Finance & Financial Services*, 1(1), 45–54. <https://core.ac.uk/download/pdf/33342717.pdf>