

**IPO INFORMATION DISCLOSURE AND PRICE
STABILISATION ACTION FROM THE
PERSPECTIVE OF INFORMATION
ASYMMETRY IN HONG KONG LISTED
COMPANIES**

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by

XU MORONG

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LIST OF ABBREVIATIONS

| | |
|----------|--|
| CEPA | the Mainland and Hong Kong Closer Economic Partnership Arrangement |
| COVID-19 | Coronavirus Disease 2019 |
| FTD | Failures to Deliver |
| GEM | Growth Enterprises Market |
| HK\$ | Hong Kong Dollar |
| HKEx | Hong Kong Exchange |
| IPO | Initial Public Offering |
| MD&A | Management's Discussion and Analysis |
| OA | Over-allotment Option |
| OLS | Ordinary Least Square |
| R&D | Research and Development |
| SDC | Securities Data Company |
| SEO | Seasoned Equity Offering |
| SOE | State-owned Enterprise |
| US\$ | United States Dollar |
| U.S. SEC | United States Securities and Exchange Commission |
| WHO | World Health Organization |
| 2SLS | Two-stage Least Squares |

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**PENDEDAHAN MAKLUMAT IPO DAN TINDAKAN PENSTABILAN
HARGA DARIPADA PERSPEKTIF ASIMETRI MAKLUMAT SYARIKAT
TERSENARAI DI HONG KONG**

ABSTRAK

Topik mengenai IPO telah menarik perhatian para sarjana selama masa yang panjang. Dalam pelbagai topik penyelidikan ini, penstabilan harga, yang merupakan tindakan pasaran sekunder yang diambil oleh penaja jamin, kurang diberi tumpuan oleh kajian terdahulu. Faktor-faktor yang menyebabkan penstabilan yang dilakukan oleh penaja jamin tidak jelas, ini disebabkan oleh halangan yang timbul daripada ketidakwajaran pendedahan sukarela mengenai tindakan tersebut di banyak negara. Sementara itu, sebagai dokumen wajib bagi penerbitan IPO, prospektus mengandungi maklumat yang mencukupi bagi pelabur membuat keputusan untuk pelaburan IPO. Kajian terkini memberi tumpuan kepada maklumat yang didedahkan dalam prospektus IPO, seperti kandungan teks, nada teks dan pengaruhnya terhadap prestasi pasaran. Namun, beberapa daripadanya yang menyelidiki hubungan antara pendedahan maklumat dalam prospektus IPO dan penstabilan harga. Tesis ini menyiasat faktor-faktor yang berpotensi menyebabkan penstabilan harga dari perspektif teori ketidakseimbangan maklumat dengan mengkaji bagaimana maklumat yang didedahkan dalam prospektus IPO boleh memberi impak kepada tindakan penstabilan pasca-penyenaraian menggunakan data sampel dari tahun 2004 hingga 2021 di pasaran saham Hong Kong. Secara khusus, kesan maklumat yang berkaitan dengan pelabur penjurong, kepemilikan oleh kerajaan China, serta ketidakpastian naratif yang terkandung dalam prospektus, disiasat menggunakan model regresi kuasa dua terkecil biasa. Tesis ini mendapati bahawa maklumat yang berkaitan dengan pelabur penjurong

berkorelasi positif dengan tindakan penstabilan harga pasca-penyenaraian. Maklumat yang berkaitan dengan kepemilikan oleh kerajaan China secara statistiknya berkorelasi negatif dengan penstabilan harga. Semakin besar peratus saham yang dimiliki oleh entiti berkaitan dengan kerajaan China seperti yang dinyatakan dalam prospektus, semakin kurang saham yang distabilkan oleh penaja jamin. Akhir sekali, ketidakpastian naratif yang diwakili oleh nada teks yang negatif dan tidak pasti dalam prospektus berkorelasi positif dengan penstabilan harga. Semakin banyak perkataan yang negatif dan tidak pasti digunakan dalam keseluruhan prospektus, semakin banyak saham yang distabilkan. Secara khusus, nada teks yang negatif dan tidak pasti dalam bahagian "Faktor Risiko" dalam prospektus berkait rapat dengan penstabilan harga. Sementara itu, nada negatif dalam bahagian "Ringkasan" dan nada tidak pasti dalam bahagian "Rancangan Masa Depan dan Penggunaan Hasil" berkorelasi positif dengan penstabilan harga. Keputusan empirik tesis ini mengesahkan teori "kutukan pemenang", teori ex-ante ketidakpastian, dan teori prospek. Untuk menangani kemungkinan masalah endogen, kajian ini menggunakan anggaran kuasa dua terkecil dua peringkat dengan menggunakan pembolehubah instrumental bagi nada tekstual purata industri. Untuk memastikan kredibiliti keputusan ujian, pengukuran alternatif untuk kedua-dua pelabur asas dan pemilikan negara China, pembolehubah kawalan tambahan termasuk penggunaan khusus hasil IPO dan struktur lembaga, dan kesan pandemik COVID-19, digabungkan dalam regresi garis dasar. Keputusan tersebut tetap tidak berubah selepas menangani masalah endogen yang mungkin dengan menggunakan penaksiran dua peringkat dan kekal kukuh selepas melakukan pemeriksaan kebolehtahan.

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ACTION FROM THE PERSPECTIVE OF INFORMATION ASYMMETRY
IN HONG KONG LISTED COMPANIES**

ABSTRACT

The topics of IPO have attracted attentions from scholars for a long time. Among these research topics, price stabilisation, which is an aftermarket action taken by underwriters, is relatively less concentrated by prior studies. Factors which cause the stabilisation done by underwriters are not clear, owing to the barrier resulted from the non-mandatory disclosure of such actions in many countries. Meanwhile, as a compulsory document for IPO issuers, the prospectus contains sufficient information for investors to make decision for IPO investment. Recent studies have focused on the information disclosed in IPO prospectus, such as the text content and textual tone, and its corresponding influence on market performance. Yet, studies which have investigated the relationship between the information disclosure of IPO prospectus and price stabilisation are scarce. This thesis probes into the potential factors of price stabilisation from the theoretical perspective of information asymmetry by examining how the information disclosed in the IPO prospectus can impact the aftermarket stabilising actions using a sample data from 2004 to 2021 in Hong Kong stock market. Specifically, the effects of the information disclosure related to cornerstone investors, Chinese state ownership, as well as the narrative uncertainty contained in the prospectus, are investigated using ordinary least square regression model. This thesis finds that the information related to cornerstone investors is positively correlated with price stabilising actions in the aftermarket. The information relevant to Chinese state ownership is statistically negatively associated with price stabilisation. The greater

percentage of shares held by Chinese government related entities as disclosed in the prospectus, the fewer the shares are stabilised by underwriters. Last, the narrative uncertainty represented by negative and uncertain textual tones of the prospectus is positively linked to price stabilisation. The more negative and uncertain words used in the entire prospectus, the more the shares are stabilised. In particular, negative and uncertain textual tones in “Risk Factors” section of the prospectus are significantly related to price stabilisation. While the negative tone in “Summary” and the uncertain tone in “Future Plans and Use of Proceeds” are positively associated with price stabilisation. The empirical results of this thesis confirm the “Winner’s Curse” theory, ex-ante uncertainty theory, and prospect theory. To address possible endogenous problems, this study uses the two-stage least squares estimation by employing instrumental variables of the industrial average textual tones. To ensure the credibility of the test results, alternative measurements for both cornerstone investors and Chinese state ownership, additional control variables including the specific usage of IPO proceeds and board structure, and the impact of COVID-19 pandemic, are incorporated in the baseline regression. The results remain unchanged after addressing possible endogenous problems using two-stage least squares estimation, and are solid after taking robustness checks.

CHAPTER 1

INTRODUCTION

1.1 Introduction

The procedure by which a privately-held company issues its shares on a stock exchange and makes those shares available to purchase by the general public is known as an initial public offering, or IPO. There are numerous studies focusing on the topic of IPOs and aftermarket anomalies, especially in the short-term underpricing (Allen & Faulhaber, 1989; Beatty & Ritter, 1986; Benveniste & Spindt, 1989; Chung et al., 2017; Dumrongwong, 2020; Duong et al., 2021; Li et al., 2021; Peng et al., 2021; Rock, 1986; Welch, 1992). Nonetheless, underwriters' actions in the IPO event aftermarket have received limited attention, considering their key roles in share pricing and share distribution during the IPO events. Price stabilisation is one of these aftermarket actions that underwriters commonly perform during IPO activities, and it is popular in different markets. By its definition, price stabilisation action involves the process where underwriters keep the IPO market price to be “stable” when there is a deviation from the offering price within the required stabilising period (which is usually 30 days after the issuing date). Price stabilisation actions undertaken by underwriters in the IPO events will hereafter be cited as price stabilisation in this thesis.

Nowadays, it is a common practice in capital markets all over the world to include price stabilisation in IPO agreements. It is also one of the major services which underwriters offer to the issuers in the course of IPO (Bajo et al., 2017). Underwriters can “manipulate” the IPO share price to certain degree, with the approval from regulators when conducting stabilising actions. Before the IPO events, issuers (firms which go public) will allow underwriters to oversell additional shares, and underwriters have the right to decide how and when to cover their short positions,

usually by either providing price support, or using the over-allotment option (OAO) where underwriters can sell additional shares to investors at the offer price (the maximum limit is usually 15% of the original offering amount), in the event that the demand for an IPO exceeds expectations. Therefore, during the entire process of price stabilisation, the underwriter is playing a significant role in affecting the IPO's performance by intentionally adjusting the aftermarket price.

Noticeably, it is widely recognized that IPO investment can be quite risky (Baker et al., 2021). The high information disparity exists because IPO issuing firms do not have past track records such as the business plan and management policies accessed by the public, in comparison to public companies. Also, the IPO stock trading is often volatile, which might cause the investing return from IPO fluctuates rapidly, leading to potential loss suffered by investors. In this sense, price stabilisation done by underwriters illustrates the fact that the influence of underwriters could extend beyond the IPO issuing date, and accordingly could affect the aftermarket performance of IPO. More importantly, existing studies reveal that the consequences of price stabilisation include mitigating negative market performance (Bajo et al., 2017; Jiao et al., 2017), protecting the reputation of underwriters (Carvalho et al., 2020; Lewellen, 2006), and enhancing the liquidity of the secondary market (Boulton & Braga-Alves, 2020). Motivated by these positive outcomes, this study contends that the possible factors of price stabilisation are of great importance to be further examined.

As one of the most crucial documents published by issuers during the IPO events, the IPO prospectus which contains valuable information towards the issuing firms such as operating conditions, ownership structure, potential risks, intended use of proceeds, and financial soundness, can offer substantial amount of information to

IPO investors and the public. Thus, it is reasonable to assume that the information disclosed in prospectus can alleviate the information asymmetry exists in IPO events (Fenili & Raimondo, 2021). Although prior studies have examined factors of underwriters' action to stabilise (Boreiko & Lombardo, 2011; Chowdhry & Nanda, 1996; Fjesme, 2019; Hanley et al., 1993; Jiao et al., 2017; Lewellen, 2006; Mazouz et al., 2013), research focusing on the information disclosed in IPO prospectus and its potential impact on price stabilisation is scarce. Hence, this thesis will try to complement the literature of both IPO prospectus and price stabilisation by investigating the possible link between the disclosure of information in prospectus and the price stabilisation actions undertaken by underwriters. Specifically, the disclosures of cornerstone investors and state ownership, as well as the narrative uncertainty contained in IPO prospectus, and their potential effects on price stabilisation will be examined in this study. The reasons for choosing these three types of information from the prospectus are as follows. First, cornerstone investors play a crucial role in the IPO event, especially in Asian markets. As Tan and Ong (2013) point out, there is an increasing attention being paid to cornerstone investors to reduce possible executive risks against the volatile stock markets in Asia. Meanwhile, disclosure of information related to cornerstone investors serves as a potential significant role to certify and validate the worth of offerings (McGuinness, 2012). Second, several giant IPOs have been launched in Hong Kong stock market in recent years, many of them are the partial privatization of Chinese State-owned enterprises (SOEs). Using information related to Chinese SOEs from prospectus can enhance the understanding of how political connections of Chinese companies can possibly affect IPO performance among market participants. Third, narrative uncertainty, usually represented by textual tone, has significant impact on the decisions made by various market stakeholders (Luo & Zhou,

2020; Yang et al., 2022). The textual tone implied in the prospectus can signal the performance and perceived level of riskiness for future operation, which could be informative for investors to make investment decisions.

This chapter will be arranged as follows. In Section 1.2, the background of IPO, IPO price stabilisation and the role of underwriters in price stabilisation will be introduced. In Section 1.3, the importance of disclosure in IPO prospectus will be presented. Section 1.4 will introduce the institutional background of Hong Kong stock market. In Section 1.5, the research problem will be discussed. Section 1.6 and Section 1.7 introduce the research questions and objectives respectively. Section 1.8 explains the importance of the study. Section 1.9 defines the key terms. Last, Section 1.10 introduces the structure of the thesis.

1.2 IPO and IPO Price Stabilisation

Notably, the decision to go for an initial public offering (IPO) can be seen as one of most critical stages along the firm's business life circle. As a result, IPO and its relevant topics have been researched by many academic scholars for a long time. The related research topics include IPO withdrawal, IPO short-term underpricing, IPO long-term performance, IPO price stabilisation and so forth. Among these topics, IPO price stabilisation has been noticed by several researchers since 1990s. However, relatively less attention has been given in recent years. This study argues that it is crucial to study price stabilisation because underwriters are acting like market makers (Ellis et al., 2000) by participating in price stabilisation activities including price support and the exercise of over-allotment option (OAO), which could impact the market liquidity (Boulton & Braga-Alves, 2020), enhance the market efficiency to

make compensation for uninformed investors (Chowdhry & Nanda, 1996), and consequently affect the IPO performance (Jiao et al., 2017).

It is apparent that price stabilisation can be categorized as a form of price manipulation to certain extent, considering underwriters could issue additional shares and/or purchase shares from the secondary market to provide price support. However, just as The Release 38067 of U.S. Securities and Exchange Commission (U.S. Securities and Exchange Commission, 1997, p.81) admits, “Although stabilisation is price-influencing activity intended to induce others to purchase the offered security, when appropriately regulated it is an effective mechanism for fostering an orderly distribution of securities and promotes the interests of shareholders, underwriters, and issuers.” The most significant consequence of price stabilisation is to “stabilise” or try to keep the market price of IPOs not to deviate too much from the offer price in both directions, reducing the volatility of the IPO market price in the short run. Higher volatility will cause lower IPO activity because risk-averse investors are more reluctant to invest in IPOs whose after-IPO returns are highly volatile. The earnings yield will fluctuate as the price of IPO stocks become volatile. Also, higher volatility would expose underwriters, who is usually the market maker, investors, and issuers to higher liquidity risk (Dicle & Levendis, 2018; Lan & Khoi, 2022). Thus, to study the underwriters’ role in price stabilisation can be helpful for regulators across the world to utilise price stabilisation as tools to better manage the capital markets by reducing the IPO price volatility and oversee relevant underwriters’ activities during the IPO process.

1.2.1 IPO

As Loughran and Ritter (1995) suggest, companies will file for IPOs when there are more benefits of trading publicly than insiders’ gaining. For private

companies, their decision to go listing in stock exchanges can be determined by the company's business life cycle. Certain stages of business life cycle where companies are in may "induce" their ownership structure becomes more decentralized if they want to develop better, for instance, the need to attract more capital to expand the production scales or invest in research and development (R&D). Bernstein (2015) proposes that private corporations decide to go public after they achieved innovation breakthroughs. IPO is also an appropriate exit for early insiders, such as venture capitalists and angel investors, to cash out their investments and realize gains, because they can easily convert their portion of ownership into cash when high level of liquidity is provided by publicly trading.

During the entire process of IPO, underwriters, particularly the lead underwriters, are the market makers (Ellis et al., 2000). Their roles have been examined from several aspects including IPO withdrawal, IPO underpricing and IPO performance. For instance, underwriters will set a higher offer price than it supposed to be for IPO with weaker pre-market demand (Busaba et al., 2020), and the prestige of underwriter will negatively affect the IPO withdrawal (Boeh & Southam, 2012).

IPO underpricing is also a hot research issue that has been studied frequently. The term "underpricing," as used in this thesis, describes the situation in which an IPO stock ends up with a positive first-day return after listing (Dumrongwong, 2020). Many scholars have noticed the phenomenon of underpricing and related it with the influence of underwriters (Carter et al., 1998; Kirkulak & Davis, 2005; La Rocca, 2021; Ruud, 1993). Baron (1982) first suggests that underpricing happens because investment bankers, or underwriters possess superior information when they set the offer price and distribute IPOs.

1.2.2 IPO Price Stabilisation

IPO price stabilisation is typically conducted by the single lead underwriter on behalf of all underwriters. The lead underwriter usually initiates the stabilisation with a short position, or negative inventory, usually on the day before the official listing day (Aggarwal, 2000; Ellis et al., 2000). After the IPO starts to be traded, if the stock price falls below its offer price, underwriters would begin to “support” the market price by purchasing stocks in the secondary market at or below its offer price, which mainly can protect the interest of investors from suffering loss and reducing the risk (volatility) caused by the decline of share price. Underwriters may use the over-allotment option (OAO) to cover their short position if the stock price rises above the offer price. Underwriters are given the “option” to issue extra shares from the issuer through the OAO provision (in Hong Kong and most stock markets, the maximum limit is 15%). This is beneficial for issuers because the exercise of OAO enables them to raise more capital from the IPO events.

Many recent famous IPOs launched in Hong Kong have been undertaken price stabilisation. For instance, Alibaba, the Chinese e-commerce and tech giant, was listed in Hong Kong Exchange in November, 2019 by issuing 500 million shares at the offer price of HK\$176, and expected to raise HK\$88 billion from its IPO. During the 30-day stabilising period, Credit Suisse (Hong Kong) Limited, as the stabilising manager, conducted the full exercise of the Over-allotment Option and issued 75,000,000 new shares (which is 15% of the initial offering amount) on December 3, 2019, raising HK\$13.2 billion additionally.

Another renowned Chinese tech giant – JD.com went public in Hong Kong stock market in June 2020. The company issued 133 million new shares at the offer price of HK\$226. According to the announcement published on Hong Kong Exchange

(HKEx) website, its lead underwriter, Merrill Lynch (Asia Pacific) Limited, as the stabilising manager, provided price support by purchasing 37,900 shares in the aftermarket at the price of HK\$226, and partially exercised the OAO by issuing 19,912,100 additional shares on July 10, 2020. JD.com received approximately HK\$4.5 billion additional capital for exercising the OAO.

Also, empirical study has proven that OAO grants issuers with more accurate pricing and better aftermarket performance (Jiao et al., 2017). Meanwhile, underwriters' stabilising action during the post-IPO period is helpful to protect their own reputations (Lewellen, 2006; Mazouz et al., 2013). Thus, the benefits of the manipulation brought by stabilisation, i.e., the reduced volatility of market price and the more accurate pricing, actually outweigh the drawbacks of creating a temporary (usually no more than 30 days) manipulating market and eventually protect the interest of investors to certain extent.

1.2.3 Roles of Underwriters in Price Stabilisation

By applying a combination of short covering, penalty bids, and exercise of OAO in the aftermarket, underwriters are able to influence the stabilisation process and minimize their losses (Aggarwal, 2000). Specifically, underwriters may take a short position and incorporate the penalty bid clause into the underwriting agreement for the initial public offering. They are able to absorb the shares that are being flipped and stabilise the share price by short covering in the aftermarket. Underwriters could potentially lessen the selling pressure from flippers through the inclusion of the penalty bid. In case the share price goes above the offer price, the OAO can be utilised to cover the short position. As Ellis et al. (2000) point out, using OAO helps underwriters to decrease the inventory risk and they emphasise that price stabilisation can be profitable for underwriters, and most of the profits are contributed by

underwriting fees negotiated before the IPO events. Meanwhile, a much smaller portion of profits come from underwriters' marketing making process (including trading profits from buying and selling quotes and from gains on inventory position).

1.3 The Significance of Information Disclosed in Prospectus

The IPO prospectus is a required document which should contain specific information for investors to make decision for investment towards the IPO. Typically, the detailed prospectus will be needed before the new securities could be offered to the public, and information provided by prospectus usually include the details of the offering, a concise history of the issuer and introduction of its business, past financial performance, ownership details, risk factors related to the investment, and so forth. As Bhabra and Pettway (2003) point out, the community of investors believes that the most accurate and detailed information of the issuers can be found in the IPO prospectus. Additionally, IPO prospectus is required by securities authorities across the world and is approved for its material accuracy. Therefore, it is a legal document which could certify that issuers and underwriters have provided all material facts related to the IPO for investors.

As the economy develops, the corporate product and business model innovations have emerged rapidly, together with more complicated operating conditions faced by firms. These changes have caused the situation where the financial reports cannot provide a comprehensive understanding towards the company. Attempting to lower the information asymmetry between investors and the company, the management team of issuing firms starts to focus more on the disclosure of non-financial information by highlighting their potentials through narrative texts (Yan et al., 2019). In this way, IPO prospectus can be viewed as one of the major channels for

issuers to communicate with investors, considering the information it contains for private companies which go listed for the first time. As Fenili and Raimondo (2021) suggest, communication correctly with investors and the general public is a crucial factor that could affect the success of IPO, which highlights the importance of the prospectus. From the perspective of investors and the general public, when they are making investment decisions towards newly listed companies, except for the ones that are already famous, most of the information they can get is from the IPO prospectus. The ample amount of information regarding the future business plans and potential problems issuers may face could obviously provide references and guidance for investors to make investing decisions.

1.4 The Institutional Background of Hong Kong Market

In this subsection, the institutional background of Hong Kong stock market will be discussed. First, a brief introduction of the trading settings and securities authority will be presented. Next, the detailed regulation that governs price stabilisation will be presented, followed by the introduction of cornerstone investors and the related rules in Hong Kong. Last, a brief history and current status of Chinese state-owned enterprise listed in Hong Kong will be introduced.

1.4.1 The Trading Settings and Securities Authority

The Hong Kong Stock Exchange (HKEx), also known as the Stock Exchange of Hong Kong is one of the fastest growing and important stock exchanges in Asia. The HKEx currently has two different listing boards, which are the Main Board and the Growth Enterprises Market (GEM). The issuers that choose to list in the Main Board need to meet the requirements of profit, market capital/revenue and market capital/cash flow. The GEM is basically designed for emerging companies that obtains

growth potentials and nice business ideas and yet do not satisfy the profitability, revenue, or cash flow requirements of the Main Board (Low, 2009). The IPO pricing system in Hong Kong involves a simultaneous hybrid system with book building process towards institutional investors and public offering process towards retail investors. Specifically, Jiang and Li (2013) state that the Double Tranche Mechanism—which consists of the Public Tranche for retail investors and the Placing Tranche for institutional investors—is used by the majority of IPOs filed in Hong Kong. The book building procedure for Placing Tranche typically determines the offer price range for IPOs, with the upper end of the range being binding. In the meanwhile, applicants for Public Tranche must pay the maximum offer price, brokerage expenses and levies. The day following the closing of the Placing and Public Tranches is usually when the final IPO offering price is decided.

The Securities and Futures Commission (SFC), whose authority and responsibilities are outlined in the Securities and Futures Ordinance (Chapter 571 of the Laws of Hong Kong) (SFO), is the primary regulator of the securities sector in Hong Kong. The HKEx has been given some of the SFC's responsibilities for listings and listed businesses, primarily the responsibility for issuing and managing the Rules Governing the Listing of Securities on The Stock Exchange of Hong Kong Limited (also known as the "Listing Rules"). HKEx is taking the leading position as far as listings and listed firms are concerned under the existing arrangements. Nonetheless, the SFC retains its investigative and enforcement capabilities with respect to listing matters, and its supervisory jurisdiction is not exclusive.

The reasons for choosing Hong Kong are as follows. First, the regulatory disclosure requirements in Hong Kong enable the author to precisely capture price

stabilisation actions of underwriters. In comparison with developed countries including U.S. where underwriters are not required to disclose all their stabilising actions, regulators in Hong Kong make it mandatory for underwriters to reveal all the details related to price stabilisation through public announcement. The specific rules of disclosing stabilising actions in Hong Kong is discussed in the Section 1.4.2. Therefore, the stabilisation actions and precise analysis of potential factors for such actions can be conducted. Second, it is noticed that relatively less attention has been paid to price stabilisation in emerging markets. Considering Hong Kong is one of the most important capital markets in Asia where the price stabilisation practice has been commonly adopted for decades, the outcomes of this thesis may provide constructive implications for other Asian and emerging markets.

1.4.2 The Regulation of Price Stabilisation in Hong Kong Market

Typically, in Hong Kong, the issuing firm would appoint a stabilising manager, which usually is the lead underwriter to undertake the stabilisation actions. The legislation that governs the price stabilisation activities in Hong Kong is Securities and Futures (Price Stabilising) Rules (Cap. 571 sub. leg. W), which was enforced on 1st April, 2003. It permits the stabilising manager, namely, the single lead underwriter, to purchase IPO stocks in the secondary market in Hong Kong to prevent the price from dropping. It also specifies the stabilising period, which starts from the commencement of trading in stock exchange and ends on the 30th day after the closing date for subscription or the commencement of trading, whichever is earlier. The maximum amount of over-allocate (the short position) that underwriters can take is 15% of the total issue size, limiting the extent of exercise of OAO within this range. Unlike other countries such as the U.S., underwriters are strictly prohibited to taking naked short position greater than 15%. Hong Kong Exchange (HKEx) also requires underwriters

to disclose the following information within seven days after the end of the stabilising period using public announcement: 1). the ending date of stabilisation, 2). whether the stabilisation was undertaken, 3). whether there were more than one purchase and the purchasing price range in the course of stabilising, 4). the date and the price of the last purchase during the stabilising process and 5). the extent to which any OAO was exercised.

1.4.3 The Cornerstone Investors in Hong Kong Market

Cornerstone investors, by its definition, refer to the type of investors who formally promise to invest a predetermined amount of money or for a certain number of shares in an IPO (McGuinness, 2014). The cornerstone agreement signed by each cornerstone investor guarantees the allotment of shares to these investors. The existence of cornerstone investors is relatively common in Asian IPO markets, including the Singapore, Malaysia and Hong Kong markets. One possible reason for the widely practice of introducing cornerstone investors in these markets is that Asian IPO issuers and underwriters try to reduce the executive risk in the equity markets (Tan & Ong, 2013). In Hong Kong, the relevant disclosure regarding cornerstone investors is included in the Section “Cornerstone Investors” of the prospectus. The identity, the amount invested, the confirmation of the independence from the IPO issuer, as well as the after-listing percentage of shareholding of each cornerstone investor are mandatory to be disclosed. Furthermore, the cornerstone agreement is also mandatory to be disclosed in the prospectus and are available for inspection from the public.

In this thesis, it is found that 488 out of 1,180 IPO issuers examined have cornerstone investors, which accounts for 41.36% of the total sample. Meanwhile, cornerstone investors potentially possess the halo and signalling effects which can be useful for retail investors who may not have the capability to analyse the IPO

prospectus and potential downside risks (McGuinness, 2012, 2014; Tan & Ong, 2013). Meanwhile, the price stabilisation is the mechanism which substitutes the underpricing (Lewellen, 2006; Schultz & Zaman, 1994) and it can compensate investors more effectively by reducing the aftermarket price volatility (Chowdhry & Nanda, 1996). Hence, the potential impacts caused by the cornerstone investors on price stabilisation in Hong Kong market is worthy to be examined.

According to the “Listing Rules” in Hong Kong, cornerstone investors may normally be placed subjected to the following conditions: (1) being placed at the IPO offering price; (2) the shares need to be subjected to a minimum six-month lock-up period; (3) no direct or indirect benefits are granted to the cornerstone investors aside from a predetermined allocation; (4) every cornerstone investor is independent of the issuer as well as its connected parties and (5) specifics of the cornerstone agreements, together with the background and name of the cornerstone investors, need to be revealed in the listing document.

Particularly, to maintain their preferential status for the guaranteed share allocation, cornerstone investors must abide by the lock-up period as mandated by the HKEx. Lock-ups, which confine the resale of shares for realizing immediate profit, are set to be a minimum of six months and are meant to help maintain an orderly market following the IPO event. However, some analysts contend that lock-ups might restrict the market liquidity due to the amount of shares that are locked up (Cao et al., 2004).

One of the most fundamental regulatory requirements of the “Listing Rules” towards cornerstone investors is that cornerstone investors cannot have any personal connections to the issuer and must be independent of the issuer, its directors, their associates, and the issuer's current shareholders. In addition, the “Listing Rules” forbid

allocating shares to the connected clients of every member's corporate group inside the entire underwriting syndicate. It is noticed that the fund management and private wealth management divisions of the underwriter are allowed, as long as the final beneficiaries are unaffiliated third parties. Under the above-mentioned rules, cornerstone investors' decision to participate in a Hong Kong IPO is primarily a business decision.

1.4.4 The Chinese State-Owned Enterprises in Hong Kong

Because of the stringent capital controls on Mainland China and prohibitions on mainland-funded companies operating in Hong Kong, many companies that listed in Hong Kong are state-owned companies. According to Chen (2018), the state-owned enterprises in China had been expanding slowly in Hong Kong prior to the reform and opening-up. Out of the 240,000 firms that were registered in Hong Kong in 1979, only 122 were backed by the Mainland China government.

China-funded businesses sprang up all across Hong Kong in the 1980s and 1990s, and the Mainland China treated the platform as a valuable way to draw in international capital, acquire cutting-edge technology, and seal trade agreements. Approximately 1,800 mainland-funded businesses with total assets for about HK\$ 1.3 trillion (US\$ 166.5 billion) were registered in Hong Kong by the end of 1996. With the intention of expanding their operations to Greater China and other international markets, many Chinese state-owned enterprises (SOEs) established subsidiaries in Hong Kong following the handover of Hong Kong to Chinese rule in 1997, and the signing of the Mainland and Hong Kong Closer Economic Partnership Arrangement (CEPA) in 2003. The total assets of Mainland China funded businesses registered in Hong Kong increased by 30% to HK\$ 20 trillion (US\$ 2.6 trillion) from 2013 to 2016. At the same time, the number of the mainland-funded companies increased by 25% to

4,000. Prior to the handover in 1997, the only Mainland China-funded firm with a Hong Kong registration whose total asset was beyond HK\$ 100 billion (US\$12.8 billion) was Bank of China (Hong Kong). Yet, by the end of 2016, 42 firms have total assets more than HK\$ 100 billion (Chen, 2018).

The ownership structure, especially the governmental ownership, has been a factor on IPO performance that frequently studied by prior studies (Cao et al., 2022; Chen et al., 2013; Tan et al., 2015; Yang et al., 2020). Chinese governments, from both the central and local levels, encourage SOEs to partially privatisation by utilising capital market for direct financing (Liu et al., 2020). Interestingly, the privatisation of Chinese SOE is worth examining as it displays how socialism transits to a market economy (Su & Fleisher, 1999). Hong Kong stock market, where no restrictions from capital and exchange control are exerted, provides a suitable platform for researchers to examine whether and how the ownership control of Chinese government impacts IPO aftermarket performance (McGuinness, 2012). Using information related to Chinese SOEs from prospectus can enhance the understanding of how political connections of Chinese companies can possibly affect IPO performance among market participants.

Table 1.1 reports representative SOEs which have Chinese central state-owned entities as their largest shareholder listed in Hong Kong stock market. The market capitalization is based on the market value by 30 November, 2023¹.

¹ All the data in Table 1.1 is retrieved from the Hang Seng Indexes Company Limited Official Website at: <https://www.hsi.com.hk/eng/indexes/all-indexes/hscsoe> and HKEx Official Website at: https://www.hkex.com.hk/Market-Data/Statistics/Consolidated-Reports/China-Dimension?sc_lang=en#hkex_page_header&select2=1

Table 1.1 List of SOEs Controlled by Chinese Central Government

| Stock Code | Stock Name | Market Capitalization (HK\$) |
|------------|---|---------------------------------|
| 135 | Kunlun Energy Co. Ltd. | 62,516,548,332.00 |
| 144 | China Merchants Port Holdings Co. Ltd. | 41,980,091,860.00 |
| 267 | CITIC Ltd. | 214,104,332,957.00 |
| 291 | China Resources Beer (Holdings) Co. Ltd. | 114,195,027,056.00 |
| 297 | Sinofert Holdings Ltd. | 6,111,276,488.00 |
| 338 | Sinopec Shanghai Petrochemical Co. Ltd. | 3,886,928,640.00 |
| 386 | China Petroleum & Chemical Corporation | 99,487,959,372.00 |
| 552 | China Communications Services Corporation Ltd. | 7,963,429,399.00 |
| 570 | China Traditional Chinese Medicine Holdings Co. Ltd. | 20,143,207,408.00 |
| 688 | China Overseas Land & Investment Ltd. | 158,044,118,245.00 |
| 696 | TravelSky Technology Ltd. | 12,291,167,160.00 |
| 728 | China Telecom Corporation Ltd. | 50,236,224,200.00 |
| 753 | Air China Ltd. | 23,999,714,495.00 |
| 762 | China Unicom (Hong Kong) Ltd. | 154,520,527,942.00 |
| 836 | China Resources Power Holdings Co. Ltd. | 72,445,282,724.00 |
| 857 | PetroChina Co. Ltd. | 108,237,357,000.00 |
| 883 | CNOOC Ltd. | 621,221,937,631.00 |
| 939 | China Construction Bank Corporation | 1,086,686,285,858.00 |
| 941 | China Mobile Ltd. | 1,353,895,361,350.00 |
| 966 | China Taiping Insurance Holdings Co. Ltd. | 25,445,651,249.00 |
| 981 | Semiconductor Manufacturing International Corporation | 176,015,819,735.00 |
| 1055 | China Southern Airlines Co. Ltd. | 17,414,989,905.00 |
| 1088 | China Shenhua Energy Co. Ltd. | 86,294,665,100.00 |
| 1099 | Sinopharm Group Co. Ltd. | 26,004,292,141.00 |
| 1109 | China Resources Land Ltd. | 203,944,871,959.00 |

Table 1.1 Continued

| Stock Code | Stock Name | Market Capitalization (HK\$) |
|------------|--|---------------------------------|
| 1193 | China Resources Gas Group Ltd. | 56,693,315,340.00 |
| 1199 | COSCO SHIPPING Ports Ltd. | 18,708,790,196.00 |
| 1209 | China Resources Mixc Lifestyle Services Ltd. | 67,447,875,000.00 |
| 1313 | China Resources Cement Holdings Ltd. | 12,569,288,071.00 |
| 1398 | Industrial and Commercial Bank of China Ltd. | 324,609,726,617.00 |
| 1515 | China Resources Medical Holdings Co. Ltd. | 5,783,177,261.00 |
| 1610 | COFCO Joycome Foods Ltd. | 8,614,156,847.00 |
| 1766 | CRRC Corporation Ltd. | 13,768,858,026.00 |
| 1880 | China Tourism Group Duty Free Corporation Ltd. | 9,892,597,500.00 |
| 1898 | China Coal Energy Co. Ltd. | 27,186,109,060.00 |
| 1919 | COSCO SHIPPING Holdings Co., Ltd. | 23,855,853,600.00 |
| 2099 | China Gold International Resources Corp. Ltd. | 12,784,343,534.00 |
| 2319 | China Mengniu Dairy Company Limited | 954,100,000,000.00 |
| 2328 | PICC Property and Casualty Co. Ltd. | 62,576,595,065.00 |
| 2357 | AviChina Industry & Technology Co. Ltd. | 21,985,746,439.00 |
| 2600 | Aluminum Corporation of China Ltd. | 15,223,708,636.00 |
| 2628 | China Life Insurance Co. Ltd. | 78,727,631,500.00 |
| 3311 | China State Construction International Holdings Ltd. | 45,640,807,012.00 |
| 3320 | China Resources Pharmaceutical Group Ltd. | 30,658,651,050.00 |
| 3323 | China National Building Material Co. Ltd. | 15,862,349,820.00 |

Table 1.1 Continued

| Stock Code | Stock Name | Market Capitalization (HK\$) |
|------------|---|---------------------------------|
| 3898 | Zhuzhou CRRC Times Electric Co., Ltd. | 13,519,036,180.00 |
| 3908 | China International Capital Corporation Ltd. | 23,529,910,330.00 |
| 3969 | China Railway Signal & Communication Corporation Ltd. | 4,666,058,370.00 |
| 3988 | Bank of China Ltd. | 239,995,933,254.00 |
| 6030 | CITIC Securities Co. Ltd. | 42,497,646,588.00 |

1.5 Problem Statement

The fundamental outcome of price stabilisation is to let the market price of IPO to be less fluctuated. Price stabilisation can generate more liquidity in the secondary market (Boulton & Braga-Alves, 2020), and offer investors chances to properly estimate potential risks, gains, as well as the losses they may expose or obtain from IPO investments. Yet, previous scholars argue that some consequences of price stabilisation can also be noteworthy, including the chances of failures to deliver (Edwards & Hanley, 2010) and the increasing demand of short selling (Ellis et al., 2000). In particular, a failure to deliver (FTD) represents a situation when the market participants cannot deliver on their own trading obligations. For buyers (the one with a long position), FTD means they do not have enough money; for sellers (the one with a short position), FTD means they do not have all or some of the underlying assets required at settlement. Edwards and Hanley (2010) find that price stabilisation can cause FTD to occur. Underwriters need to establish a short position before IPO listing and cover the short position either by the exercise of OAO, or purchasing shares in the secondary market (price support). FTD could happen when investors who bought the excessive shares sell these shares earlier than underwriters cover the short position.

Meanwhile, Ellis et al. (2000) argue that the demand of short selling may increase among IPOs which are stabilised, mainly because investors are inclined to assume these stock prices are inflated, while short selling can be quite risky particularly for retail investors (Engelberg et al., 2018).

As Barbaroux (2014) argues, asymmetric information can be the primary cause of market failures and frictions, because it can impact the perception of individuals regarding the quality of items and services. Thus, information asymmetry among IPO market participants can be a possible reason for why IPOs that are stabilised may result in FTD and short selling. Investors who do not know the shares they are allocated are uncovered ones may sell the shares before the stabilising actions (the exercise of OAO and purchasing shares via price support in the aftermarket) taken by underwriters. Hence, it is important to examine whether and how the detailed information, specifically the non-financial information, disclosed in IPO prospectus affects price stabilisation because investors can better estimate and anticipate whether the shares they hold are uncovered ones and the opportunity of the occurrence of price stabilisation. As a result, the potential chances of FTD can be reduced as investors may not sell the shares so that underwriters can provide price stabilising actions effectively to cover the short position in the secondary market.

Prior studies have examined some firm-level factors that might influence price stabilisation. For example, literature has found that the characteristics of underwriters such as underwriters' reputation (Bajo et al., 2017; Lewellen, 2006; Mazouz et al., 2013; Signori et al., 2013), the size of the IPO (Jiao et al., 2017; Tutuncu, 2020) and the riskiness of the issuers (Carvalho et al., 2020; Mazouz et al., 2013) could affect underwriters' action to stabilise the IPO. In recent years, several scholars have paid

more attention to textual and narrative information and its impacts on IPO pricing, typically the underpricing. For example, Fedorova et al. (2022) find that the media sentiments toward the company, and news topics relating to climate change, environmental policies, and trade war between U.S. and China, will affect IPO underpricing based on U.S. evidence. Kang and Lam (2023) find that more authentic environmental disclosure from prospectus results in lower level of underpricing using a Singaporean IPO sample. Yet, studies focused on the possible impacts from information disclosed in the IPO prospectus, a critical listing document for all IPOs, on underwriter's price stabilisation actions are scant.

Meanwhile, the measurements of price stabilisation used by most current studies are hindered by the barriers originated from non-mandatory disclosure. For example, in the U.S., the Securities and Exchange Commission (U.S. SEC) does not require underwriters to disclose their price stabilising actions, which causes such activities to be unobservable. Particularly, as a tool for underwriters to manage the price stabilisation process, the price support actions and the extent to which the OAO is exercised are also not compulsory for U.S. underwriters to disclose. As Aggarwal (2000) points out, the information of price stabilisation is incomplete in Securities Data Company's (SDC) New Issues database. According to the cross-checking, Aggarwal (2000) proposes that the blank information of OAO exercise means either the OAO is not exercised, or the information is not available. To measure the stabilising actions taken by underwriters, scholars have to use the average bid-ask spread as a substitute (Bajo et al., 2017; Boulton & Braga-Alves, 2020; Hanley et al., 1993), which may not fully capture the actual price stabilisation actions.

Normally, the IPO prospectus is used during the roadshow for IPO marketing, and underwriters could determine the offering amount and the final offer price according to the investor's indication of interests during the roadshow. As Ellis et al. (2000) mention, the short position for conducting the potential price stabilisation will be established by underwriters on the day before the official listing day after the roadshow. The information disclosed in prospectus will impact the perception of potential investors towards the issuers during the roadshow (Bajo & Raimondo, 2017), and accordingly affect the stabilising actions taken by underwriters afterwards. In addition, the price stabilisation announcement published on the official site of Hong Kong Stock Exchange for each IPO can fully capture the stabilising actions of underwriters during the IPO stabilising process, which enables this study to accurately analyse the effects of information within IPO prospectus on price stabilisation. Hence, in this study, the research problem revolves around the issue of **whether and to what extent does the information disclosed in prospectus affect the IPO price stabilisation action.**

1.6 Research Questions

To better detect the factors related to the disclosure of information in prospectus that may affect underwriters' decision to stabilise, the following research questions are constructed.

First, the impact of the disclosure of the cornerstone investors on price stabilisation will be researched. The reason for choosing the disclosed information for cornerstone investors is that the regulatory setting in Hong Kong stock market offers underwriters opportunities to allocate large number of shares up-front to privileged parties including cornerstone investors, making the participation of cornerstone

investors during the IPO events in this market an “anomaly” in the global IPO landscape (McGuinness, 2014). As the cornerstone allocations are common in Hong Kong market, disclosing such information in prospectus could be a factor that may affect the aftermarket stabilising activities. Hence, the first research question is as follow:

RQ1. Does the disclosure of cornerstone investors in prospectus affect the price stabilisation done by underwriters?

Second, Chinese state ownership on price stabilisation will be researched. This study differentiates major shareholders from cornerstone investor because major shareholders are usually holding the shares for a long run and have right to vote for board members as their representative in the company. However, cornerstone investors are required to be independent of the IPO issuer, the directors, and the issuer's current shareholders, and are prohibited to have representatives in the board of the company. Cornerstone investors are also subjected to a lock-up period for a minimum of six months. It is noticed that Chinese state-related companies have actively listed in HKEx, including certain largest IPOs ever launched in Hong Kong (i.e., *Industrial and Commercial Bank of China*). Considering the fact that HKEx attracts a large number of China-affiliated IPO issuers, the potential influence from the disclosure of Chinese state control in prospectus is not neglectable when examining the possible determinants of price stabilisation in Hong Kong market. Hence, the second research question is:

RQ2. Does the disclosure of Chinese state ownership in prospectus affect the price stabilisation done by underwriters?

Third, the narrative uncertainty contained in the prospectus, represented by its negative and uncertain textual tone, and its potential effects on price stabilisation will be examined. During the process of composing the IPO prospectus, managers from the issuing firms might utilise a large amount of linguistic narratives which could be very difficult to be audited and supervised in order to imply the sentimental information they want to convey, so that they can achieve a subtle impact on the investment decisions made by investors (Yan et al., 2019). Accordingly, the textual tone of prospectus may affect the stabilising actions taken by underwriters.

Furthermore, this study follows the work done by Hanley and Hoberg (2010) to parse the IPO prospectuses in Hong Kong market. They argue that the most important sections of an IPO prospectus in United States stock market are: “Prospectus Summary”, “Risk Factors”, “Use of Proceeds”, and “Management’s Discussion and Analysis” (MD&A). However, since there is no MD&A section required by HKEx, and the issuers in Hong Kong usually do not disclose similar MD&A information in other sections of prospectus, this study only pays attention to the rest three important corresponding sections of prospectus issued in Hong Kong market, namely, they are “Summary”, “Risk Factors” and “Future Plans and Use of Proceeds”, respectively. An example of the contents of IPO prospectus used in Hong Kong can be seen in Appendix A. The reasons for focusing on these three sections are: 1). the “Summary” section is the major tool utilised by underwriters to conduct IPO marketing activities towards potential investors (Hanley & Hoberg, 2010) where the highlights of the issuer will often be included; 2). “Risk Factors” and “Future Plans and Use of Proceeds” sections, as their names imply, usually include information related to different risks that the firm encounters and how it intends to use the proceeds from the IPO in future, both are of great importance for investors to refer to when making investment decisions (Grover