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Who leaves money on the table? The role of founder identity in Hong Kong

Abstract

This study investigates the effect of corporate governance factors on the underpricing of initial public offerings (IPOs) in Hong Kong, and the results show that this effect is significant. IPOs are categorized into four subgroups based on the role of the founder: 1) no-founder firms (companies with no specific founder), 2) pure-founder firms (companies whose founder is neither the company's chairman of the board nor its CEO), 3) founder-chairman/CEO firms (companies whose founder is either the company's chairman of the board or its CEO), and 4) founder-chairman-CEO firms (companies whose founder is the chairman and CEO). The results demonstrate a significant descending pattern for the underpricing level of the four subgroups, which can be explained by the varying incentive and behavior mechanisms that result from the various founder identities.

Keywords: Family firms, IPO underpricing, Corporate governance, Board of directors, Hong Kong

JEL codes: G14, G34

1. Introduction

It has been well documented worldwide that initial public offerings (IPOs) are generally underpriced¹. Corporate governance has also drawn considerable academic attention in recent years, and numerous studies have focused on this issue². Good corporate governance has various valuable impacts, such as increasing firm value and stock returns, decreasing risk exposure, improving investor protection, and increasing stakeholder wealth. By going public, a privately owned firm is transformed into a publicly listed one, thereby enabling it to raise funds in the capital market by selling its shares to the public. This transformation requires fundamental changes to how the firm is run. A publicly listed company must comply with stringent requirements concerning its accountability. For example, a firm's owner could be the only one making decisions for the firm before it is publicly listed. In contrast, all major decisions for listed firms must pass through the board of directors, which includes independent directors who represent the interests of minority shareholders. One of the major roles of independent directors is to monitor the board's decisions in order to protect the interests of minority shareholders. However, few studies have examined the effect of corporate governance practices on short-term IPO underpricing. The current study aims to bridge this gap by examining how corporate governance practices affect IPO underpricing rather than simply providing additional empirical evidence for the underpricing phenomenon in the Hong Kong market.

This research investigates how corporate governance affects IPO underpricing by using a sample of 938 IPOs in the Hong Kong stock market from 1994 to 2014. For the following reasons, the Hong Kong market provides a powerful research setting to address our research questions. First, family business groups dominate the Hong Kong economy, and many control

¹ Loughran et al. (1994) observe short-run IPO underpricing in 25 countries, although the magnitude of underpricing varies.

² For example, see Shleifer and Vishny (1997), Claessens and Fan (2002), and Gillan (2006).

two or more member firms publicly traded on the SEHK. The ownership and control structures are publicly disclosed in annual reports, which enable researchers to identify founders and family business groups. Second, as the data reveal, family firm founders in Hong Kong retain the role of CEO and/or chairperson and are actively involved in making strategic and resource allocation decisions, providing an ideal setting to test our research question. We can differentiate the various identity roles that founders play in formulating an IPO offer price. Third, because of Hong Kong's history as a former British colony, its corporate governance practices have been influenced by the Anglo-American paradigm. However, the price mechanisms and regulations in the Hong Kong IPO market are quite similar to those of other main markets. Thus, our findings are easy to generalize to other main markets.

IPO underpricing is measured via the initial return, which is calculated as the percentage change from the offer price to the closing first-day market price (Ibbotson and Jaffe, 1975; Ritter and Welch, 2002). Many corporate governance variables are examined in this research, including board size, board independence, and the founder's role.

IPOs are divided into four subgroups based on the role of the founder: 1) no-founder firms (companies with no specific founder), 2) pure-founder firms (companies whose founder is neither the company's chairman of the board nor its CEO), 3) founder-chairman/CEO firms (companies whose founder is either the company's chairman of the board or its CEO), and 4) founder-chairman-CEO firms (companies whose founder is the chairman and also serves as the CEO of the company). The underpricing levels of no-founder, pure-founder, founder-chairman/CEO, and founder-chairman-CEO firms are found to be 14.9%, 9.5%, 8.4%, and 7.7%, respectively, creating an interesting descending pattern by group. The empirical results show that the difference between groups is statistically significant, and moreover, this systematic

descending pattern is consistent in three regression models. The findings can be explained by the various incentive and behavior mechanisms resulting from the multiple founder roles.

Founders have natural incentives to bargain for a higher offer price because they hold a substantial equity stake and typically consider their firms to be their lifetime achievement (Fahlenbrach, 2009). Compared with pure-founder firms, founder-chairman or founder-CEO firms demonstrate less underpricing because they are less risky (Ritter, 1984). In this setup, investors can be rewarded with higher long-term returns because the presence of the founder-chairman or the founder-CEO can help mitigate the agency problem and improve decision-making efficiency (Donaldson, 1990; Peng et al., 2007; Fahlenbrach, 2009; Adams et al., 2009). Furthermore, founder-chairman-CEO firms are determined to have the lowest underpricing level because their negative effects are strengthened when the effects of CEO duality and founders are combined (He, 2008).

This study makes several contributions to the literature. First, it contributes to the family leadership literature by testing the possible consequences of multiple founder identities. While prior studies have directed more attention to the influence of family ownership or leadership on corporate performance, the present study focuses on IPO underpricing and finds that the founder's role can reduce IPO underpricing by mitigating agency problems.

Second, few studies have examined how corporate governance practices affect short-term IPO underpricing in Asia. The current study aims to enrich both the underpricing and corporate governance literature by investigating the effects of corporate governance factors on IPO underpricing, and it finds that board characteristics are negatively – although insignificantly – associated with IPO underpricing.

In addition, the current study focuses on the multiple roles of the founder. Empirical evidence shows that, compared with no-founder firms, founder-chairman-CEO firms exert the greatest negative effect on IPO underpricing, followed by founder-chairman or founder-CEO firms and then by pure-founder firms. The results indicate that the multiple identities of a founder can be a key to understanding the differences in corporate performance and strategies between family-owned and non-family-owned firms.

The rest of this paper is organized as follows. Section 2 provides a brief review of the literature and proposes the hypothesis, Section 3 introduces the institutional background of the Hong Kong IPO market, and Section 4 discusses the data and variables used in this research. Additionally, Section 5 presents the empirical findings, and Section 6 concludes the paper.

2. Theory and hypothesis development

2.1. Literature on IPO underpricing

In the short term, IPOs are generally underpriced, and this phenomenon has been well documented in nearly all stock markets worldwide, including the US, the UK, Japan, Hong Kong, Singapore, South Korea, and China. Ritter and Welch (2002) and Ljungqvist (2005) conduct detailed reviews of IPO activities, addressing issues including the reasons why firms go public, why they reward first-day investors with underpricing, and how IPOs perform in the long term.

Explanations for the underpricing phenomenon vary, and existing theories cannot help to reach a consensus. Most theoretical explanations are based on information asymmetry and adverse selection among issuers, investors, and investment banks.

A brief headline summary of theoretical findings for underpricing emphasizes information asymmetries between issuers and their investment bankers (Baron, 1982; Baron and Holmstrom,

1980); the “winner’s curse” hypothesis (Rock, 1986); avoidance of potential legal liability (Tinic, 1988); costly firm quality (Allen and Faulhaber, 1989; Grinblatt and Hwang, 1989; Welch, 1989); “faddish” behavior on behalf of investors (Aggarwal and Rivoli, 1990); investment banker reputation (Carter and Manaster, 1990); “cascades” in the IPO market (Welch, 1992); regulatory constraints, wealth redistribution, and market incompleteness (Mauer and Sebnet, 1992); information extraction theory (Benveniste and Spindt, 1989; Sherman and Titman, 2002; Gondat-Larralde and James, 2008); and prospect theory (Loughran and Ritter, 2002).

Empirical findings on IPO underpricing can be classified based on different markets and summarized as follows. In the following discussion, the terms “underpricing,” “initial return,” and “first-day abnormal return” are equivalent.

For the US market, Ibbotson and Jaffe (1975) determine that IPOs provide abnormally high short-term monthly returns. More specifically, Ibbotson et al. (1988) find an average daily return of 16.4% for 4,534 IPOs from 1977 to 1987, as computed using the difference between the offer price and the closing price on the first trading day. Chalk and Peavy (1987) investigate the distribution of IPO daily returns across time, the initial offering categories, and the types of offerings, and their findings show abnormal returns on the first trading day that continue beyond that day. Meanwhile, Hanley and Wilhelm (1995) report evidence that institutional investors capture a considerable portion of IPO short-term profits, while Aggarwal and Rivoli (1990) investigate the price performance of 1,598 sample IPOs in 1977–1987 and discover that IPOs are subject to overvaluation or fads in early aftermarket trading. Their results also show that IPOs are profitable investments in the short term but perform poorly over a long period. Ritter (1991) reports that IPO underpricing is a short-term phenomenon and demonstrates that newly listed firms underperform a sample of matching firms from the first day of listing to their third

anniversary. For the UK market, Jenkinson (1990) finds that firms with a full listing on the London Stock Exchange from 1985 to 1988 are underpriced by an average of 12%. Similarly, during the “hot issue” period between the Big Bang and the October 1987 stock market crash, the degree of underpricing rose to approximately 25%. Excluding the “hot issue” period, average UK IPOs are underpriced by approximately 7%.

For the Japanese market, Pettway and Kaneko (1996) find that the average initial returns of the fixed-price offering period are 62.1%, whereas they are 12.7% during the first six years of the auction regime. They also conclude that public policy that removes price limits and introduces public auctions can reduce but not eliminate IPO underpricing.

For the South Korean market, Kim, Krinsky, and Lee (1995) find that the average market-adjusted return on the first trading day is 57.56% for a sample of 169 firms that went public from 1985 to 1989. They assert that existing theories on long-term performance do not apply to Korean IPOs.

For the Singapore market, Firth and Liao-Tan (1997) develop various signaling models to explain the valuation of unseasoned new issues listed on the Singapore Stock Exchange from 1980 to 1993, using entrepreneurs’ retained ownership, dividend underpricing, and financial advisers’ reputation as signals. Their study shows that dividends and financial advisers can be used as signals of the accuracy of company valuation. Additionally, Lee et al. (1999) use application and allocation schedules to explain the underpricing phenomenon of IPOs in Singapore, while Hameed and Lim (1998) demonstrate the effect of different pricing methods on the underpricing of IPOs in Singapore and conclude that IPO firms use the tender option to signal superior firm quality.

For the Mainland China market, a strand of empirical research reports severe underpricing in the Chinese A-share IPO market. For example, Mok and Hui (1998) analyze 101 observations from 1990 to 1993 and find that A-share IPOs in Shanghai record an underpricing level of 289.2%, in contrast to a mere 26.0% for B-share IPOs. Additionally, they assert that the key determinants of underpricing include high equity retention by the state, long time lags between offering and listing, and the ex ante risk of new issues. Using 308 observations from 1987 to 1995, Su and Fleisher (1999) discover that the underpricing levels of A- and B-share IPOs are 948.6% and 37.1%, respectively, and further claim that underpricing is a strategy for firms to signal their value to investors and that the differences in initial returns between A- and B-shares can be explained by the differences in investment opportunities and sentiments between domestic and foreign investors.

Table 1 shows that, in previous studies, the underpricing level of the Hong Kong market lies in the interval between 10% and 20%. McGuinness (1992) investigates 92 IPOs in Hong Kong from 1980 to 1990 and finds that most post-listing returns are attained by the closing of the first trading day. To examine the strategic share allocation strategy of IPO underwriters, Cheng et al. (2005) introduce two measures of allotment ratios for small investors and find that underwriters use the non-discretionary allocation of IPOs to favor small investors, which benefit from regulatory concerns about protecting the interests of small investors in Hong Kong. Carey and Steen (2006) find that initial returns are associated with market conditions but not with any particular industry or geographic location. Cheung and Liu (2007) report that the level of block-trading activities is negatively associated with IPOs' long-term performance. This negative association supports the hypothesis that IPO block holders might have superior information about newly listed companies. Keasey and McGuinness (2008) argue that IPO underpricing

appears to have minimal or no association with post-listing earnings in Hong Kong. Jiang and Li (2013) find that investor sentiment is an important factor on IPO pricing. The current study will provide additional evidence on the IPO underpricing phenomenon in the Hong Kong market.

Another stream of IPO underpricing research has developed recently. Existing studies on European gray markets, the AIM in London, and Indian when-issued trading indicate that pre-market prices are informative about post-market prices (Löffler, Panther, and Theissen 2005; Aussenegg, Pichler, and Stomper 2006; Derrien and Kecskés 2007; Brooks, Mathew, and Yang 2014). Additionally, using Taiwan's Emerging Stock Market, Chang et al. (2017) document that pre-market prices are very informative.

2.2. Literature on corporate governance

Corporate governance has drawn considerable attention in recent years, particularly after the 1997 Asian financial crisis. Given that good corporate governance has valuable influences on various aspects, such as increasing firm value and investor return, decreasing risk exposure and financial crises, improving investor protection and stakeholder wealth, and stimulating economic growth, numerous studies have focused on issues related to corporate governance. Shleifer and Vishny (1997), Claessens and Fan (2002), and Gillan (2006) provide detailed reviews on the topic.

Many researchers have directed considerable attention to board size and independence level. John and Senbet (1998) provide a literature review on corporate governance and board effectiveness. Lipton and Lorsch (1992) and Jensen (1993) support the proposition that, when the monitoring capacity of a board increases as more directors are added, the monitoring benefit can be outweighed by the incremental cost of the inputs of additional time and resources for communication, negotiation, and compromises, which are required by a large board when

making decisions. Yermack (1996) finds a negative relationship between board size and firm value for a sample of 452 large US industrial corporations between 1984 and 1991 when controlling for company size, industry membership, inside stock ownership, growth opportunities, and alternative corporate governance structures. That study offers evidence supporting the theory that a small board of directors is more effective than a large one.

The high independence level of a board is assumed to be associated with increased shareholder wealth because outside directors can monitor the behavior of managers on behalf of shareholders and thus help mitigate agency problems. Rosenstein and Wyatt (1990) adopt a standard event study methodology and find that announcing the appointment of an outside director is associated with increased shareholder wealth. Brickley et al. (1994) provide additional evidence supporting the hypothesis that outside directors serve shareholders' interests.

Additional evidence can be found in studies on the relationship between CEO turnover (or appointment) and board independence. Weisbach (1988) finds significant differences between managers' patterns of monitoring inside and outside director-dominated boards and determines that independent directors are more vigilant in replacing poor-performing management. He also concludes that the observed shareholder wealth effect of CEO turnover is consistent with efficient monitoring by independent directors. Borokhovich et al. (1996) report a strong positive relationship between the percentage of outsider directors and the frequency of outsider CEO succession, and they find that evidence from stock returns during succession announcements indicates that, on average, shareholders benefit from the appointments of outsiders but are harmed when an insider replaces a fired CEO.

Agency theory argues that self-interested underwriters have strong incentives to bias the offer price downward so that they can allocate underpriced shares to their favored clients in

exchange for side payments (Loughran and Ritter 2002; Reuter 2006; Nimalendran, Ritter, and Zhang 2007; Liu and Ritter 2010, 2011; Goldstein, Irvine, and Puckett 2011). This incentive is present regardless of the difficulty of predicting the market price once an IPO begins trading.

However, Bhagat and Black (1997) report that one-half of the 100 largest American public corporations surveyed in 1996 have only one or two insider directors, which suggests that the effect of board independence on shareholder wealth remains contentious. Thus, it is difficult to draw concrete conclusions on optimal board composition in policy debates.

Although several studies have investigated the relationship between CEO duality (i.e., when the CEO of a firm is also the chairman of the board) and corporate performance, their results are inconsistent. Agency theory (Jensen and Meckling, 1976; Fama, 1980) indicates that duality promotes CEO entrenchment by reducing board monitoring effectiveness. Rechner and Dalton (1991) find that firms that opt for independent leadership consistently outperform those that rely on CEO duality, and Finkelstein and D'Aveni (1994) report that CEO duality is less common when the CEO has high informal power and when firm performance is high. In contrast, organization theory and stewardship theory (Donaldson, 1990) state that CEO duality establishes a strong and unambiguous leadership that helps promote efficiency in decision making. Additionally, based on an archival database that covers 403 publicly listed firms and 1,202 company-years in China, Peng et al. (2007) provide strong evidence supporting stewardship theory.

Other issues concerning the corporate governance mechanism have also been addressed in the literature. For example, the monitoring role of large creditors is investigated by Diamond (1984). Takeovers are also widely interpreted as critical corporate governance mechanisms in the US (Jensen 1988, 1993), and state ownership and CEO connections are special concerns in the

Chinese equity market (Fan et al., 2007; Guo and Brooks, 2008; Francis et al., 2009). Shleifer and Vishny (1997) conclude that the legal protection of investors and certain forms of concentrated ownership are essential elements of good corporate governance. However, no consensus has yet been reached on which corporate governance system is the best or which specific corporate governance criteria are the most standardized worldwide. Therefore, studies should be further conducted to find additional evidence for this field.

2.3. Founder role and IPO underpricing

Despite the abundance of studies that separately address corporate governance and IPO underpricing worldwide, research on the relationship between IPO issue and corporate governance remains lacking in Asia (Yong, 2007). Existing studies on Asia have focused on the relationship between firms' post-IPO performance and the corporate governance mechanism³. Nonetheless, few studies have examined how corporate governance practices affect short-term IPO underpricing in Asia, and no published paper has yet investigated the possible consequences of multiple founder identities.

In the present study, we consider two potential mechanisms to explain the influence of the founder's role on IPO underpricing. On one hand, previous studies have focused on the effect of family-owned firms on corporate performance (Anderson and Reeb, 2003; Maury, 2006; Villalonga and Amit, 2006; Miller et al., 2007; Gao and Jain, 2011), particularly on the aspect of the role of the founder-CEO, i.e., when the CEO is also the founder or co-founder of the company. For example, Fahlenbrach (2009) finds that founder-CEO firms have not only higher firm valuation but also better stock market performance than non-founder-CEO firms do. Additionally, Adams et al. (2009) use instrumental variable methods to identify a positive causal

³ For example, see Kim et al. (2004), Chen and Kao (2005), Li (2006), and Fan et al. (2007).

effect of founder-CEOs on performance, and He (2008) determines that founder-managed firms are associated with higher financial performance than are professional-managed firms. Research suggests that this positive influence can be attributed to reduced agency costs (Fama and Jensen, 1983; Nelson, 2003; Wasserman, 2003). From the signaling perspective, information asymmetry between IPO issuers and external investors typically creates substantial agency problems and results in IPO underpricing (Daily et al., 2003). Founders can have superior inside information about firms (Anderson and Reeb, 2003), and thus, they can reduce information asymmetry costs by communicating the expected value of their firms and signal high commitment levels that mitigate adverse selection problems, thereby reducing underpricing (Bruton et al, 2009; Randøy and Goel, 2003; Jain and Tabak, 2008). Moreover, in firms headed by the founding family, mitigating the agency problem can help them achieve the primary goal of an IPO – raising capital – thereby causing the founder CEO or the chairman to direct increased attention toward the value of shares. This condition can also reduce IPO underpricing.

However, founder CEOs or chairmen typically possess unique intrinsic attributes. For example, they tend to exhibit a high need for achievement and strong psychological attachment to and identification with the company (Begley, 1995; Arthurs and Busentiz, 2003). When negotiating the company's offer price, founder managers with more information will place a greater value on shares and thus require a more rational price. Thus, the presence of founder managers is negatively associated with IPO underpricing.

Based on the aforementioned reasons, the following hypothesis is proposed:

Hypothesis: Founder leadership is negatively related to IPO underpricing.

3. Data and methods

The complete list of IPOs studied here, as well as IPO information – including the offer price, subscription rate, raised funds, and listing date – are obtained from the HKEx Fact Book, which is published annually by the HKEx. Corporate governance information – including the numbers of executive and independent non-executive directors and the names of the chairmen, founders, and CEOs – is collected from the prospectuses, most of which can be found in the Hong Kong Central Library.

Other financial data, such as the closing price of the listing day, market index, and industry codes, are downloaded from the Wind Database or the China Stock Market and Accounting Research Database.

During the sample period (1994–2014), a total of 1,417 IPOs were listed on the main board of the Stock Exchange of the Hong Kong Limited.

Among these, 57 IPOs are excluded because they are listed using the introduction method and thus have no offer price; 50 are excluded for missing the closing price on the first trading day; and 372 are excluded because their prospectuses cannot be found in the Hong Kong Central Library or they have missing values for other control variables.

Therefore, the final sample consists of 938 IPOs. Table 2 shows the sample generation process, and Figure 1 plots the annual distribution of these IPOs.

By focusing on the role of the board chairman, this research aims to examine how corporate governance practices affect IPO underpricing. This difference can induce varying corporate behavior and might result in divergent economic effects. Specifically, this study investigates the

different effects of the role of the chairman on IPO underpricing by decomposing the 938 firms into four different subgroups: pure-founder, founder-chairman or founder-CEO, founder-chairman-CEO, and no-founder. Table 3 presents the corresponding distribution of the 938 IPOs in the sample based on the multiple identities of the board chairman. Of the 938 IPO firms, 148 (15.78%) have a pure founder, 281 (29.96%) have a founder-chairman or a founder-CEO, 327 (34.86%) have a founder-chairman-CEO, and 182 (19.40%) have no specific founder.

To obtain an intuitive view of the Hong Kong IPO market, Table 4 presents the descriptive statistics of the 938 IPOs grouped by the year of issue. The average offer price is HKD 2.96, with a median offer price of HKD 1.69 for the entire sample. The offer prices in the sample period range from HKD 0.33 to HKD 22. Panel B shows that the mean and median funds raised by the firms at the time of listing are HKD 2,061 and HKD 450 million, respectively, whereas the funds raised range from HKD 50 million to HKD 31,228 million for the entire sample. The extensive range and considerable differences between the mean and median raised funds are attributed to several giant state-owned IPO companies from Mainland China, such as China Construction Bank Corporation, China Unicom Limited, and China Telecom. The mean and median subscription rates are 105.61 and 12.05 times in the sample period, which indicates that most of the issues are oversubscribed (831 out of 938 firms are oversubscribed, which accounts for 88.6%). The subscription rate ranges from 0.07 to 1,232 times, which is extensive and implies that several IPOs are extraordinarily welcomed by investors⁴.

Table 5 presents all the major variables used in this research and their corresponding definitions. The variables are divided into three batches: core variable, corporate governance variables, and control variables. In particular, the core variable is IPO underpricing, which is calculated as the price change from the offer price to the closing price of the first trading day,

⁴ All the variables used in this study are winsorized at the 1st and 99th levels.

similar to that in previous studies. The corporate governance variables are board size, board independence, and a dummy variable based on the role of the founder. Additionally, this study uses a batch of control variables as explanatory variables for IPO underpricing, including the funds raised, offer price, and subscription rate.

Most previous studies, including Ritter (1984) and Beatty and Ritter (1986), show a negative relationship between the initial issue size (raised funds) and the initial return. A possible explanation for this finding is that, as the size of the issue increases, the bargaining power of the issuer increases, and thus the initial underpricing by the underwriter decreases. Another explanation is that, as the size of the issue increases, the amount of money required by the investor to push up the first-day trading price increases, and thus, the underpricing level decreases. The same rationale can also be applied to the level of the offer price.

Abundant empirical evidence shows that IPO underpricing is greater in a buoyant stock market⁵, and previous research indicates that initial returns tend to be higher following periods of good market index performance; that is, the market state is positively associated with the IPO underpricing level. To explore this phenomenon, cumulative returns in the Hang Seng Index (HSI) 30 days prior to each listing are used to denote pre-market performance. HSI is one of the earliest stock market indexes in Hong Kong. Publicly launched on November 24, 1969, HSI has become the most widely quoted indicator of the performance of the Hong Kong stock market. HSI comprises 45 blue chip stocks that represent 70% of the total market capitalization. Similarly, the subscription rate should have a positive effect on the initial return, given that the increasing demand will raise the trading price when more investors are involved in IPO activities and are willing to subscribe for more shares in the buoyant stock market.

⁵ For examples, see Ritter (1984), McGuinness (1992), and Carey and Steen (2006).

This study also introduces a variable for Mainland background, widely known as the red chip⁶ and H-share⁷, to capture the effect of firms with a background in Mainland China. The Mainland background variable is assumed to correlate positively with the initial return because red chip and H-share companies are commonly pursued by the Hong Kong market, given the rapidly booming economy of Mainland China. Firms with a Mainland concept are assumed to be associated with high future returns. Following Liu and Ritter (2011), Li et al. (2015), and Loughran and Ritter (2004), this study controls for the price revision from the initial filing range to the offer price, market condition, and auditors and underwriters of IPO companies. Moreover, industrial dummy variables are introduced to capture the industry effect.

4. Results

4.1. Basic results of IPO underpricing in Hong Kong

Table 6 shows the basic descriptive statistics of IPO underpricing in Hong Kong from 1994 to 2014 by year. The results show that the underpricing magnitude varies annually and ranges from -32.5% to 93.5% for all 938 IPOs.

In 1997, the annual underpricing level reached a record of 24.3% when the Hong Kong market performed relatively strongly before the Asian financial crisis. Moreover, the overall underpricing magnitude in the sample period is 9.6%, which is significantly higher than zero at the 1% significance level. In particular, 601 IPOs achieve positive initial returns, accounting for 64.1% of the entire sample.

⁶ A company established and listed in Hong Kong but controlled by Mainland Chinese entities.

⁷ A company that is incorporated into Mainland China and that is listed in Hong Kong upon the approval of the China Securities Regulatory Commission.

4.2. Effect of corporate governance practices on IPO underpricing

This study aims to investigate the effects of corporate governance factors on IPO underpricing. Table 7 shows the basic statistics for IPO underpricing in the sample based on different chairman roles. The results show that the mean underpricing level of no-founder, pure-founder, founder-chairman or founder-CEO, and founder-chairman-CEO firms are 14.9%, 9.5%, 8.4%, and 7.7%, respectively, which presents an interesting descending pattern by group. The F-value of the ANOVA test on the average underpricing magnitude of the different subgroups is 4.09, which is significant at the 1% level. These results indicate the existence of significant between-group differences among the four chairman roles.

Subsequently, this study uses ordinary least squares regressions to investigate the relationship between corporate governance factors and IPO underpricing. Table 8 shows the regression results of IPO underpricing on corporate governance factors. IPO underpricing is the dependent variable, and no-founder firms are used as the benchmark group for all three models. The first regression model uses five corporate governance variables (three founder-role dummies, board size, and board independence) as independent variables. Control variables are then added to the second regression model. Additionally, the third regression model includes industrial dummy variables. White's test (1980) is used to ensure that none of the regression models suffers from the heteroscedasticity problem.

The results of the first regression model show that all the coefficients of founder role dummy variables are statistically significant, thereby indicating that the role of the founder affects IPO underpricing. The results show that board size and independence are negatively, although insignificantly, associated with IPO underpricing. This finding is consistent with most of the literature, in which a high level of board independence is associated with increased

shareholder wealth (a low IPO underpricing level indicates high pre-issue shareholder wealth) because outsider directors can monitor the behavior of managers on behalf of the shareholders and thus help mitigate the agency problem (Weisbach, 1988; Rosenstein and Wyatt, 1990; Brickley et al., 1994; Borokhovich et al., 1996; Shleifer and Vishny, 1997).

The results listed in Table 8 show that the coefficients of pure-founder, founder-chairman/CEO, and founder-chairman-CEO firms are -6.2% , -7.6% , and -8.3% , respectively, compared to the benchmark no-founder firms. These results are consistent with the descending pattern shown in Table 7. Compared with no-founder firms, founder-chairman-CEO firms exert the greatest negative effect on IPO underpricing, followed by founder-chairman or founder-CEO firms, then pure-founder firms. Although this phenomenon has not been documented, the aforementioned descending pattern can be explained using existing theories. First, founders have natural incentives to bargain a higher offer price because they hold substantial equity stake and typically consider their firms to be their lifetime achievement (Fahlenbrach, 2009). Therefore, compared to firms without a founder, a pure-founder firm will negatively affect IPO underpricing because of the founder's efforts. Similarly, CEO duality and having a founder-CEO are positively associated with firm value and financial performance in many previous studies because they can help mitigate the agency problem and improve decision-making efficiency (Donaldson, 1990; Peng et al., 2007; Fahlenbrach, 2009; Adams et al., 2009). These findings indicate that the presence of CEO duality (CEO-chairman) and a founder-CEO help reduce the agency problem and the uncertainty of the firm's future returns.

Thus, firms with a founder-chairman or a founder-CEO can have a lower underpricing level because they are less risky and can reward investors with higher long-term returns (Ritter, 1984) than pure-founder firms, negatively affecting IPO underpricing. In addition, Loughran and Ritter

(2004) indicate that underwriters frequently establish personal brokerage accounts for the executives of issuing firms in order to allocate hot IPOs to these firms; this phenomenon, known as the spinning hypothesis, implies that the CEO might have a lower incentive to bargain a higher offer price for pre-issue shareholders (including the founder and the chairman) if he/she does not hold a substantial equity stake because he/she is not the founder or the chairman.

He (2008) reports even better financial performance for firms with a triple-identity chairman (i.e., the chairman is both the founder/co-founder and the CEO), thereby implying that a triple-identity chairman (founder-CEO-chairman) might have a more negative effect on IPO underpricing. From this perspective, firms with a founder-chairman-CEO will have the strongest effect on IPO underpricing.

In summary, the systematic descending pattern that results from the multiple identities of the founder is reasonable and consistent with the existing literature.

The results of the second regression model shown in Table 8 indicate that all the coefficients of the founder role dummy variables are consistent with the results of the first regression model. The coefficients of founder-chairman-CEO, founder-chairman/CEO, and pure-founder firms are -8.5% , -6.9% , and -5.7% , respectively, for which the descending pattern persists. Therefore, previous explanations for the three founder-identity dummies are also valid for this model. For the control variables, the results of the second regression model shown in Table 8 indicate that IPO underpricing is significantly related to i) the subscription rate (positive), ii) the percentage price revision from the midpoint of the initial filing range to the offer price (positive), and iii) the sum of the value-weighted market return for the two months before listing, that is, the market state (positive). The findings are consistent with those in the literature: i) as the subscription rate increases, the market demand generated for IPO shares and the obtained

initial return increase; ii) Hanley (1993) finds that initial returns are positively associated with price revision; and iii) an improved market state is associated with high underpricing. However, firms with Mainland background do not have significantly higher underpricing (at the 10% significance level) than non-Mainland firms do. The coefficient of the offer price is statistically marginally significant (and significant at the 10% level when controlling for industry dummies), and its negative sign is also consistent with the literature, that is, a low offer price decreases the capital threshold for subscription and enlarges the investor base to attract more retail investors, thereby allowing the underwriter to demand higher underpricing.

When the industry effect is controlled in the third regression model, all the results are consistent with the results of the second regression model. Therefore, all the explanations are also applicable to the third regression model.

5. Discussion

This study reports the short-term performance of IPOs in Hong Kong from 1994 to 2014, and the results show that underpricing magnitude varies annually and ranges from -32.5% to positive 93.5% for all 938 Hong Kong sample IPOs. Overall, 601 IPOs (64.9%) obtain positive initial returns, with an average initial return of 9.6% in the sample period.

Furthermore, this research examines the effect of corporate governance factors on IPO underpricing by focusing on the multiple roles of the founder, and the empirical results show that corporate governance factors affect IPO underpricing. Interestingly, the underpricing levels of no-founder, pure-founder, founder-chairman/CEO, and founder-chairman-CEO firms are 14.9% , 9.5% , 8.4% , and 7.7% , respectively, which create an interesting descending pattern by group. This systematic descending pattern remains consistent in the three regression models based on

existing theories that can be explained by different incentive and behavior mechanisms that result from the multiple identities of the founder.

This research not only provides additional evidence for the IPO underpricing issue but also enriches the underpricing and corporate governance literature by examining the effects of corporate governance factors on IPO underpricing. This subject has seldom been addressed in previous studies. Moreover, the current research provides a new perspective on the underpricing problem by focusing on the multiple identities of the founder, which can also shed light on future corporate governance research.

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Figure 1
Number of IPOs in the Sample from 1994 to 2014 by Year

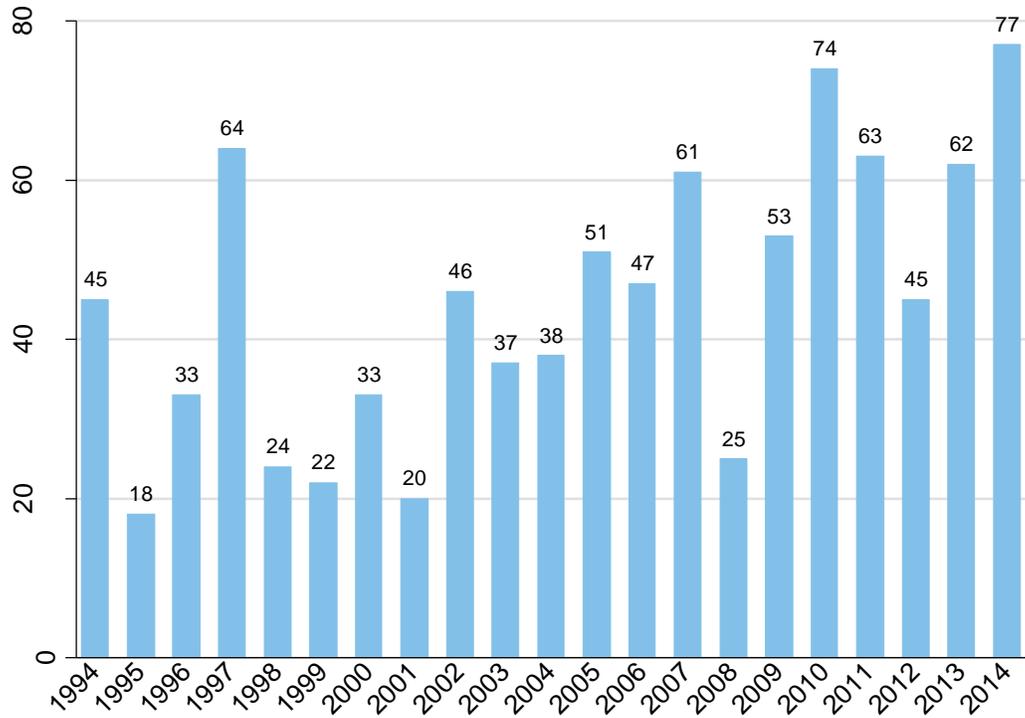


Table 1
Previous Studies on Hong Kong IPO Initial Returns

	Sample Size	Sample Period	Initial Return
Dawson (1987)	21	1978–1984	13.80%
McGuinness (1992)	92	1980–1990	17.60%
Fung, Cheng, and Chan (2004)	136	1993–1995	19.47%
Cheng, Chan, and Mak (2005)	214	1993–1997	12.95%
Carey and Steen (2006)	153	1995–1999	12.42%
Leung and Menyah (2006)	163	1994–1998	16.87%
Cheung and Liu (2007)	209	1996–2000	16.58%
Jiang and Li (2013)	293	2003–2009	14.34%

Table 2
Sample Generation Process

	Number of firms
Number of firms listed in the Hong Kong market in 1994–2014	1417
Less 1) Firms listed by introduction	(57)
2) Firms with missing data for the first-day closing price	(50)
3) Firms without a prospectus or other information on control variables	(372)
Final Sample	938

Table 3
Distribution of 938 IPOs in the Sample by Founder Identities

Group	Obs	Percent
No Founder	182	19.40%
Pure Founder	148	15.78%
Founder-Chairman/CEO	281	29.96%
Founder-Chairman-CEO	327	34.86%
Total	938	100.00%

Table 4
Descriptive Statistics on the Offer Price, Funds Raised, and Subscription Rate

Year	Offer Price (Hong Kong dollars)					Funds Raised (million Hong Kong dollars)				Subscription Rate			
	Observations	Mean	Median	Min	Max	Mean	Median	Min	Max	Mean	Median	Min	Max
1994	45	1.68	1.23	1.00	10.00	326.08	112.50	54.06	2380.00	64.55	5.91	0.22	583.00
1995	18	1.20	1.03	1.00	1.98	148.32	100.54	50.00	464.31	3.67	2.34	0.22	14.07
1996	33	3.58	1.60	1.00	17.50	736.19	194.72	50.00	4326.30	69.41	23.24	0.66	667.01
1997	64	2.13	1.28	0.90	12.48	1082.00	187.50	50.00	31228.62	138.15	39.65	0.58	1231.78
1998	24	1.49	1.00	0.70	8.00	173.65	70.91	50.00	700.00	3.25	1.18	0.42	36.50
1999	22	2.01	1.21	0.80	10.39	555.77	126.48	50.00	4301.46	10.55	3.70	0.63	83.20
2000	33	1.56	1.00	0.33	15.42	2610.63	74.75	50.00	31228.62	8.23	1.70	0.20	93.90
2001	20	1.52	1.00	0.40	5.95	912.45	72.50	50.00	11046.71	13.01	3.09	1.00	76.60
2002	46	1.04	0.79	0.33	10.95	445.65	67.76	50.00	11800.29	24.24	5.86	0.89	185.00
2003	37	2.23	1.10	0.48	13.30	1520.08	134.29	50.00	26713.82	97.87	23.00	1.12	744.30
2004	38	3.78	1.96	0.33	22.00	1892.84	508.88	55.00	14336.92	162.19	36.25	1.20	1231.78
2005	51	2.24	1.70	0.55	10.80	2401.88	476.10	55.00	31228.62	84.87	10.70	0.19	969.00
2006	47	3.05	2.20	0.55	12.68	3736.24	822.25	50.00	31228.62	207.73	118.00	0.54	851.00
2007	61	4.39	3.68	0.38	15.50	4048.43	1272.01	75.00	31228.62	228.48	161.00	0.41	962.50
2008	25	2.95	2.63	0.43	10.70	2594.46	1375.00	58.80	20196.69	25.71	2.00	0.07	293.00
2009	53	4.09	3.10	1.02	22.00	4121.40	1380.00	51.00	31228.62	156.50	45.72	0.29	1231.78
2010	74	4.47	3.08	0.60	22.00	3065.95	1533.98	50.00	31228.62	179.14	25.52	0.13	1231.78
2011	63	3.71	1.95	0.50	22.00	2384.35	745.56	52.00	19227.22	74.19	1.73	0.07	1231.78
2012	45	3.07	1.40	0.33	22.00	1931.63	300.00	50.00	27606.63	4.88	1.30	0.07	57.88
2013	62	3.14	2.19	0.50	22.00	1892.53	767.20	60.00	21897.66	105.55	16.21	0.12	1086.00
2014	77	3.53	2.38	0.51	22.00	1856.53	706.57	62.40	31228.62	150.12	12.88	0.07	1231.78
Total	938	2.96	1.69	0.33	22.00	2060.77	450.00	50.00	31228.62	105.61	12.05	0.07	1231.78

Table 5
Variable Definition

Variable	Definition
<i>Underpricing</i>	Initial return, calculated as the percentage change from the offer price to the closing first-day market price
<i>Founder-Chairman-CEO</i>	Dummy variable, equal to 1 if the firm's founder/co-founder is the chairman and the CEO and to 0 otherwise
<i>Founder-Chairman/CEO</i>	Dummy variable, equal to 1 if the firm's founder/co-founder is chairman but not the CEO or is the CEO but not the chairman and to 0 otherwise
<i>Pure-Founder</i>	Dummy variable, equal to 1 if the firm's founder is neither the chairman nor the CEO and to 0 otherwise
<i>Board Size</i>	Natural logarithm of the total number of board directors
<i>Board Independence</i>	Ratio of independent non-executive directors to the total number of board directors
<i>Offer Price</i>	Natural logarithm of subscription price
<i>Raised Fund</i>	Natural logarithm of funds raised by issuing firm
<i>Subscription Rate</i>	Times, number of shares subscribed divided by shares offered
<i>Mainland Background</i>	Dummy variable, equal to 1 if the listed firm is H-share or red chip and to 0 otherwise
<i>REVISION</i>	Percentage price revision from midpoint of initial filing range to offer price
<i>VWTOT</i>	Market return is sum of value-weighted market return for two months before IPO
<i>IPORET</i>	Average IPO first-day return two months prior to a firm's IPO month
<i>IPOTOT</i>	Total number of IPOs two months prior to a firm's IPO month
<i>Big 4</i>	Dummy variable equal to 1 if the auditor or co-auditor of the IPO firm belongs to KPMG, PWC, Ernst & Young, or Deloitte and to 0 otherwise
<i>Top Underwriter</i>	Dummy variable equal to 1 if the lead underwriter has a rank of three or more and to 0 otherwise
<i>Industry Dummies</i>	Dummy variables

Table 6
Descriptive Statistics of IPO Underpricing in the Sample from 1994 to 2014 by Year

Year	Obs.	Mean	T-stat	SD	MIN	5th percentile	Q1	Median	Q3	95th percentile	MAX
1994	45	0.101	(2.807)***	0.240	-0.283	-0.260	-0.028	0.066	0.170	0.564	0.920
1995	18	0.080	(2.756)***	0.123	-0.050	-0.050	0.000	0.049	0.100	0.500	0.500
1996	33	0.159	(3.905)***	0.234	-0.325	-0.014	0.012	0.093	0.257	0.850	0.935
1997	64	0.243	(5.909)***	0.329	-0.325	-0.189	0.008	0.197	0.480	0.935	0.935
1998	24	-0.011	(-0.378)	0.148	-0.325	-0.288	-0.019	0.026	0.072	0.172	0.214
1999	22	0.056	(1.108)	0.244	-0.222	-0.215	-0.129	0.004	0.111	0.516	0.641
2000	33	0.076	(1.496)	0.291	-0.325	-0.325	-0.103	0.030	0.270	0.580	0.935
2001	20	0.030	(1.194)	0.112	-0.176	-0.151	-0.008	0.017	0.065	0.263	0.350
2002	46	0.070	(3.048)***	0.157	-0.325	-0.150	0.000	0.048	0.140	0.358	0.480
2003	37	0.115	(3.812)***	0.183	-0.325	-0.067	0.012	0.080	0.197	0.500	0.727
2004	38	0.050	(2.209)**	0.139	-0.209	-0.118	0.000	0.016	0.109	0.281	0.582
2005	51	0.040	(2.162)**	0.131	-0.229	-0.159	-0.022	0.013	0.070	0.353	0.422
2006	47	0.242	(7.219)***	0.230	-0.189	-0.055	0.079	0.198	0.341	0.732	0.855
2007	61	0.214	(5.741)***	0.291	-0.194	-0.130	0.023	0.102	0.372	0.789	0.935
2008	25	0.057	(1.256)	0.227	-0.192	-0.167	-0.062	0.003	0.081	0.380	0.935
2009	53	0.104	(3.829)***	0.198	-0.229	-0.155	-0.016	0.063	0.184	0.523	0.633
2010	74	0.065	(3.289)***	0.170	-0.189	-0.131	-0.032	0.029	0.136	0.376	0.935
2011	63	0.018	(0.875)	0.160	-0.325	-0.170	-0.095	0.003	0.060	0.279	0.659
2012	45	0.056	(2.996)***	0.126	-0.196	-0.104	0.000	0.015	0.091	0.333	0.420
2013	62	0.062	(3.489)***	0.140	-0.186	-0.101	-0.030	0.023	0.124	0.337	0.447
2014	77	0.051	(2.339)**	0.190	-0.300	-0.177	-0.022	0.003	0.080	0.469	0.893
Total	938	0.096	(13.540)***	0.217	-0.325	-0.176	-0.015	0.038	0.168	0.528	0.935

Note: t-stat is the White t-value for testing the null hypothesis of the mean IPO; underpricing equals zero.

***, **, and * denote significance at the 1%, 5%, and 10% levels, respectively.

Table 7
Descriptive Statistics of IPO Underpricing in the Sample from 1994 to 2014 by Founder Identity

Chairman Identities	Obs.	Mean	SD	MIN	5th percentile	Q1	Median	Q3	95th percentile	MAX
No-Founder	182	0.149	0.273	-0.325	-0.144	0.000	0.050	0.230	0.818	0.935
Pure-Founder	148	0.095	0.212	-0.325	-0.187	-0.026	0.043	0.196	0.510	0.920
Founder-Chairman/CEO	281	0.084	0.206	-0.325	-0.177	-0.015	0.032	0.143	0.456	0.935
Founder-Chairman-CEO	327	0.077	0.186	-0.325	-0.177	-0.017	0.040	0.150	0.422	0.935
One-way ANOVA test										
F-value		4.90								
<i>p</i> -value		0.0022								

The IPO sample is classified into four subgroups by the multiple identities of the founder, namely, no-founder, pure-founder, founder-chairman/CEO, founder-chairman-CEO. The lower part of this table reports the results of the ANOVA test on whether the average underpricing magnitudes of different subgroups are equal. All the continuous variables are Winsorized at the 1% and 99% levels.

Table 8
Regression Results of IPO Underpricing on Corporate Governance Factors

	(1)	(2)	(3)
<i>Founder-Chairman-CEO</i>	-0.083*** (-3.438)	-0.086*** (-3.573)	-0.092*** (-3.756)
<i>Founder-Chairman/CEO</i>	-0.076*** (-3.088)	-0.069*** (-2.802)	-0.072*** (-2.942)
<i>Pure-Founder</i>	-0.062** (-2.256)	-0.057** (-2.462)	-0.062*** (-2.639)
<i>Board Size</i>	-0.060 (-1.628)	-0.049 (-1.273)	-0.049 (-1.226)
<i>Board independence</i>	-0.084 (-0.860)	-0.116 (-1.209)	-0.123 (-1.225)
<i>Offer price</i>		-0.018 (-1.622)	-0.022* (-1.827)
<i>Funds raised</i>		-0.008 (-1.309)	-0.007 (-1.027)
<i>Subscription rate</i>		0.000*** (8.292)	0.000*** (8.256)
<i>Mainland background</i>		0.008 (0.408)	0.007 (0.335)
<i>REVISION</i>		0.156* (1.881)	0.147* (1.721)
<i>VWTOT</i>		0.169** (2.248)	0.183** (2.431)
<i>IPORET</i>		-0.004 (-0.133)	-0.003 (-0.107)
<i>IPOTOT</i>		-0.001 (-0.695)	-0.001 (-0.675)
<i>Big 4</i>		0.006 (0.500)	0.007 (0.494)
<i>Top Underwriter</i>		0.009 (0.308)	0.008 (0.248)
<i>Constant</i>	0.314*** (2.767)	0.420*** (3.011)	0.376** (2.490)
<i>Industry dummies</i>	No	No	Yes
<i>Observations</i>	938	938	938
<i>Adjusted R-squared</i>	0.013	0.231	0.222

Note: *t*-stat is the White *t*-value for testing the null hypothesis of the mean IPO; underpricing equals zero.

***, **, and * denote significance at the 1%, 5%, and 10% levels, respectively.