

# Background Characteristics of Board Secretary and IPO Underpricing

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## Abstract

The information asymmetry between the internal environment and external environment of enterprises composes one of essential factors leading to IPO underpricing. According to upper echelon theory, background characteristics of senior executives will exert an impact on their behaviors selections as well as the performance of company. The board secretary in China, as the information publisher, can also influence IPO underpricing with his/her personal background. Testing the samples of GEM (The Growth Enterprise Market) in China from the year of 2009 to 2012, the paper concluded that the board secretary with financial background and related working experience can reduce the IPO underpricing, based on which the conclusion has been drawn that the personal background characteristics can influence IPO underpricing and further affect the IPO pricing efficiency, hoping to provide reference for enterprises to recruit the right person for board secretary.

## Keywords

Board Secretary, IPO Underpricing, Information Asymmetry

## 1. Introduction

IPO (Initial Public Offerings) is the process of the first time the limited company or enterprise sold shares to the public. Due to the existence of asymmetric information between the issuing company and external investors, it tends to be difficult for the investors outside to make a proper price to new issue. IPO underpricing refers to the phenomenon that the first-day market closing price is much higher than the issuing price.

Two primary functions of board secretary in enterprises that serve as the necessary participant in enterprises' IPO procedure, as have been written in stock listing rules, are to coordinate the relationship between investors and reveal in-

formation of the company. Companies, especially IPO-bound companies, require board secretaries to standardize the company's operation, organize meetings, coordinate with intermediary agencies and conduct information disclosure towards the external world, from which it can be seen the board secretary is playing a vital role as a "bridge" linking the company with the external world. And personalities of board secretary will definitely exert influence on his/her performance in career. Different board secretaries have different personal characteristics, including their professional backgrounds, working experience, terms of office, age, gender and so on. In "upper echelons theory" proposed by Hambrick and Mason in 1984 [1], background characteristics variables including academic qualification, gender, terms of office, working experiences and so on have been taken as alternative variables representing characteristics of senior executives' mentality, to research these variables' influences on senior executives' behavior selection, company's performances and so on. In previous works, scholars have conducted researches on the influences of board secretaries' involving other works (Gao Qiang & Wu Lina, 2008; Mao Xinchu *et al.*, 2013) [2] [3], holding shares (Zhou Kaiguo, 2011; Zhai Guangyu *et al.*, 2014) [4] [5], possessing social capitals (Gao Fenglian & Wang Zhiqiang, 2013) [6], gender (Lin Changquan *et al.*, 2016) [7] on the quality of their information disclosure. The study of board secretaries' personal characteristics' impact on other aspects of the enterprises remains lack, especially impact on IPO of enterprises, of which the board secretaries play an irreplaceable role in procedure to price new issue.

China adopts IPO pricing inquiry system for IPO, say, both the issuing companies and underwriters determines the issuing price of new shares by inquiries at institutional investors, which mainly consists of "initial inquiring price" and "accumulative bidding inquiring price": "initial inquiring price" refers to that the issuing companies and underwriters inquire to the inquiry recipients and determine the interval of issuing price of new shares and scope of P/E ratio based on the inquiry results; while "accumulative bidding inquiring price" refers to that, when the number of investors' effective applications is greater than that of new issue but the over-subscription rate is less than 5 times, then the issuing price would be lower threshold of the inquiry; and the rate is greater than 5 times, then downward accumulative computation should be conducted tick-by tick starting from the effective application with the highest price till the over-subscription rate exceeds 5 times for the first time, and then set the price got as the issuing price. During the IPO initial inquiring price, to determine the price, institutional investors need to evaluate the company by combining all information of IPO-bound companies, including prospectus, information company published on road show, media's report on the issuing companies (during the listing process, board secretaries are supposed to take initiative to constantly confirm the accuracy of media's reports) and so on, to make the proper price. Meanwhile, board secretaries are also required to coordinate the relations of the company with the investors, deal with investors' visiting, provide consultations and related information about the company for the investors. The personnel in the enter-

prises have more information about the company, thus, they would have a more efficient and accurate understanding of real value, development perspective, potential risks and so on.

Thus, the information asymmetry between the internal and the external become quite obvious. The degree of information asymmetry is influenced by the quality of information disclosure [8], and composes one reason leading to IPO underpricing. In Winner's Curse Hypothesis proposed by Rock in 1986 [9], to attract more unknown investors to participate in the subscription of new shares, the company would issue cheap shares to make up the loss of the unknowns caused by information asymmetry, which has also been proved by Beatty and Ritter in 1986 [10]. Therefore, the ability of the board secretaries to handle the information disclosure will influence the information asymmetry between the internal and the external environment of the enterprises thus influences the offer the investors set.

So, is there any relation between personal characteristics of board secretaries and IPO underpricing? And if there is, then how does a personal characteristic of board secretaries exert impact on IPO underpricing? To find the answers, the paper selects companies listed on GEM (The Growth Enterprise Market) in China from the year of 2009 to 2012 as the samples to conduct the researches.<sup>1</sup>

Major contributions of this paper has been listed as following: for the first of all, board secretaries received too little attention from academic circle, and literature available about board secretary all focus on its role to disclose information. IPO, as a significant financing way of company, especially the typical topic, IPO underpricing, has attracted many attentions from academic circle. However, there is rare research on relations between background of board secretaries and IPO underpricing. Secondly, influence of board secretaries on IPO goes without saying, resulting a series of phenomena like companies compete for board secretaries with rich experiences and board secretaries get a large amount of equity incentives, which have been discussed widely on market. Through empirical test, the paper attempted to provide some empirical evidences presenting the influence of board secretaries on IPO.

In upper echelon theory, Hambrick and Mason took background characteristics variables including academic degree, gender, age, office terms, working experiences and so on as alternative variables of characteristics of senior executives' mentality to study these factors' effects on the behavior selection of senior executives and performance of companies [1]. Meanwhile, professional knowledge and experiences also serve as necessary foundation for secretaries to make effective professional decisions [11]. If senior executives possess certain professional knowledge in some aspects and selectively choose their job, they will be able to more accurately understand the relevant information and make more appropriate decisions [12] [13]. As the "bridge" linking the capital market and issuing companies, board secretaries play a vital role in information disclosure

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<sup>1</sup>The paper only selects data from 2009 to 2012, because IPO has been suspended in A-share marker in 2013, and the maximum of the first-day jump of new share in 2014 and beyond has reached up to 44%.

and maintenance of relations of companies with investors. The board secretary with financial background will have high level of financial knowledge, with which he/she can more effectively publish information thus to reduce the information asymmetry between the internal and the external environment of the enterprises [14]. In capital market driven by information, quality of information disclosed by the companies will have an effect on the degree of information asymmetry. Due to the existence of information asymmetry between the issuing and the investors, investors cannot get the real value of the company. If board secretaries have relative background knowledge, he/she can be a more appropriate communicator in capital market to provide more effective explanation and information disclosure thus to improve the quality of information disclosure [15], the higher quality of information of IPO-bounce the investors get, the lower the information asymmetry is, the closer investors' evaluation of company's value to the real value, the smaller the IPO underpricing rate. Thus, hypothesis 1 can be proposed as following:

**H1:** Board secretary with financial background can increase IPO underpricing rate.

Previous studies have showed that previous working experiences of senior executives will exert an influence on enterprises' policy making. Board secretaries with working experience in investment banks can contribute to companies' M & A [16]; financial experience as directors in state-holding enterprises will make them emphasize more on the profit, leading to higher possibility of over-investment [17]; senior executive with CPA working skills and experiences can improve the earnings management of accruals [18]. Board secretaries with working experiences in other companies will have better understanding about IPO procedure and relative requirements in laws and regulations related to information disclosure and appear to be more sensitive to relative policies. Meanwhile, with rich experiences communicating with intermediary and supervision agencies, these board secretaries will be more proficient in managing the relations with these agencies. These "professional board secretaries" are more familiar with requirements of supervision department on information disclosure [19]. Additionally, board secretaries will obtain more experiences and stronger professional skills during their job-hopping [20]. It is these previous experiences that allows these board secretaries to be more sensitive to information disclosed and disclose information more accurately and effectively thus to reduce the information asymmetry. Therefore, hypothesis 2 can be proposed as following:

**H2:** Board secretaries with working experiences as board secretary can decrease IPO underpricing rate.

## 2. Literature Review

### 2.1 Research Related to Board Secretaries

Board secretaries are required to coordinate the relationship with the investors and timely accurately disclose the company's information at the same time, both

of which have been studied by many scholars. For example, good investor relations management can effectively improve company's performance [21]; the board secretaries who also serve as assistant general managers can improve the quality of information disclosure [2] [3], and when the board secretaries hold the shares of the company, the quality of information disclosure will be declined [4]. But in banking, due to factors including long office term of board secretaries and small-scale of urban banks, quality of information disclosure tends to be improved with board secretaries holding the share [5]. Jiang Fuxiu *et al.* (2016) has found that enterprises employing board secretaries with financial experiences enjoy lower financing constraints and higher level of enterprises' earning information; the stronger the financial professional ability or the higher the academic level of the board secretaries are, the greater influence they will have on the enterprises [14] [22]. Wu Yuhui, Wu Shinong *et al.* [19] defined board secretaries with financial or related working experiences as the professionals that can boost the success rate and accelerate IPO procedure.

Furthermore, social capital also composes an important part of personal characteristics of board secretaries. Based on social capital embeddedness theory, Gao Fenglian and Wang Zhiqiang (2015) to construct index system from perspective of horizontal point, vertical point and social reputation, finding that the larger the social capital the board secretaries hold, the higher the information disclosure will be; besides, positive effect of board secretaries' social capital on quality of information disclosure in regions with poorer legal protection appears to be more significant [6].

## 2.2. Research Related to IPO Underpricing

Since Ibbotson found in 1975 that the existence of 11.4% abnormal returns in the first day of American 120 new shares issue, IPO underpricing has always been a vibrant issue discussed in financial field [23]. In "Winner Curse" proposed by Rock in 1986 [9], to attract unknown investors to participate in subscription, the company will issue cheap shares to make up the losses of the unknown caused by information asymmetry; Measuring the information asymmetry by "ex ante uncertainty", Beatty and Ritter (1986) concluded that there should be positive correlation between the RIPO and ex ante uncertainty [10]. RIPO of smaller companies will be relatively higher due to their greater uncertainty that would lead to more risks. Besides, the researchers further proved Rock's "Winner Curse" by measuring the degree of uncertainty in accordance with other variables; in "Market Climate Hypothesis" proposed by Ritter in 1984 [24], it was thought that the stock price risk will be higher in a bull market, leading to increasing of prior uncertainty, making it more difficult for investors to evaluate the value of the issuing companies, thus, it will contribute to attracting more investors if issuing companies and underwriters have the degree of IPO underpricing enlarged; Leone, Rock and Willenborg found in 2007 that IPO underpricing will be reduced if companies are volunteer to disclose the use of

funds, because that would reduce the information asymmetry between the company and external investors [25].

China, one of emerging markets countries, present higher IPO underpricing rate compared with European countries and America while facing complex economic environment. In terms of institutions, Chen Gongmeng and Gao Ning (2000) that Chinese adopting price-earnings ratio method for stock price may lead to lower price of new issues [26]; in 2005, Jing Chi and Carol Padgett found that Chinese IPO underpricing rate has reached up to 129.16%, which, from their perspective, is primarily caused by quota system and the existence of a great number of “uninformed investors” [27]; it is the unbalanced market that caused high IPO underpricing rate, and that it is government’s regulation on new issue that lead to IPO underpricing. After China Securities Regulatory Commission (CSRC) canceled the limitation on price of new issues, IPO pricing efficiency increases and underpricing rate decreases, but this was accompanied by medium and small investors’ suffering from “Winner Curse” [28]. In 2014, Weng Xiaowei found that families’ participating in management of enterprises can more effectively solve the managerial agency problems between the shareholders and managers and deliver the value of enterprises to the market to reduce the information asymmetry between internal and external environment of enterprises thus to reduce the IPO underpricing rate [29]; in 2016, Xu Xin at al. found that uncertain R & D expenditure hard to evaluate will enlarge the information asymmetry, then have the IPO underpricing increased; when disclosing their profitable patents and classified technology, companies can deliver positive signal to the market and ease the uncertainty of R & D expenditure and information asymmetry, thus to reduce IPO underpricing [30].

From literature reviews above, it can be told that most previous researches were focusing on board secretaries’ role in influencing the quality of information disclosure and management of relations with investors, without much attention to their essential function as “bridge” in IPO procedure. China has a unique stock market, with an operating system different from other western developed countries. Among researches on IPO underpricing, the major has been concentrated on the solutions to new issuance, underwriters’ reputations, auditors’ reputations and information asymmetry, without much attention to the effect of personal background characteristics of the board secretary as the information publisher, on IPO underpricing.

### 3. Research Design

#### 3.1. Sample Selection and Data Sources

Being different from those on main boarding listing, companies listed on GEM in China are featured by high growth and small scale, and they are younger and present higher operation risks, thus, information asymmetry of GEM listed companies appear to be higher. The amount of IPO underpricing of issuing companies listed on GEM in China from 2009 to 2012 reached up to 69.9176 bil-

lion, 4.3 times the amount of the issuing. This was a great loss of IPO-bound companies. (Xu Xin *et al.*, 2016) The paper selects 352 IPO data of companies listed on GEM in China from 2009 to 2012, after screening out companies with information defaults or those listed without pricing inquiring [30]. Financial backgrounds of board secretaries, whether they have experiences working as board secretary, were all collected manually from Hexun, Cninfo, Sina Finance. Enterprises' IPO data come from CSMAR database; data missed were restored manually by Hexun; ranking of accounting firms were gathered from official website of AICPA; software used in the research is Stata 11.0. 1% and 99% winsorize processing were conducted on continuous variables. **Table 1** presents some sample data and main variables.

### 3.2. Model Setup and Variable Definition

In model 1, when the board secretaries have financial background, finance equals to 1, otherwise, finance equals to 0. In this paper, following several kinds of board secretaries would be regarded as board secretaries with financial background: board secretaries that major in finance, economy, accounting, possess financial and economics qualification (like CPA, CFA, ACCA and so on), have working experiences related to finance (for example, experience serving as CFO, chief accountant, securities affairs representative, securities trader or other working experiences in accounting firm).

In model 2, if the board secretary has experience serving as board secretary in other company, then experienced equals to 1, otherwise, it equals to 0. According to Ritter and Well [31], in most researches, IPO underpricing has been defined as the ratio of the excess of first-day closing-price over the issuing price to the issuing price, say, underpricing =  $(P - P_0)/P_0$ , in which, P represents closing price on first day,  $P_0$  represents the issuing price.

$$\text{underpricing} = \beta_0 + \beta_1 \text{finance} + \beta_i \sum \text{Control}_i + \varepsilon \quad (1)$$

$$\text{underpricing} = \beta_0 + \beta_1 \text{experienced} + \beta_i \sum \text{Control}_i + \varepsilon \quad (2)$$

The regression analysis to underpricing use the experience of other scholars, such as Weng Xiaowei, Chen Gongmeng. And the function of the two models is to verify, by regression analysis, whether the background of board secretaries would exert an impact on IPO underpricing rate. Model 1 is to verify whether the financial background of board secretaries would exert an impact on IPO underpricing rate; model 2 is to see whether the experience serving as the board secretary would have an impact on IPO underpricing rate.

Based on previous researches, following variables as following are also controlled in the model: the age, academic qualification, salary, increase rate of business revenue, company's founding time, time interval between issue date and launch date, allocation rate, debt ratio, scale of company, IPO pricing, return on equity, the proportion of independent directors, market return, reputation of accountant firm, industry, year. Specific definition of all variables has been listed in variable definition **Table 2**.

**Table 1.** Some sample data and main variables.

Compay code	underpricing	finance	experienced	edu	lag_number	subscription	estyear	iposize
300001	0.8487	1	0	0	2.5649	0.8114	0.0794	4.2047
300002	0.7741	1	0	1	2.5649	1.2249	0.0794	4.6151
300003	1.1862	0	0	0	2.5649	0.7590	0.0794	4.8203
300004	0.7584	1	0	0	2.5649	1.1772	0.0794	4.8283
300005	1.4044	1	0	1	2.5649	0.5377	0.0794	4.8598
300006	1.1697	1	0	1	2.5649	0.4960	0.0794	4.7958
300007	0.8041	1	0	1	2.5649	1.0199	0.0794	3.9703
300008	0.8277	1	0	0	2.5649	0.7347	0.0794	4.5644
300010	0.8750	0	0	0	2.5649	0.6532	0.0794	4.8598
300011	0.8651	1	0	0	2.5649	1.1006	0.0404	4.4773
300012	0.7797	1	0	1	2.5649	1.2582	0.0404	4.2485
300013	1.0641	1	0	0	2.5649	0.7505	0.0404	5.0239
300014	1.4044	0	0	0	2.5649	0.7000	0.0404	4.5433
300015	0.8536	1	0	0	2.5649	0.8877	0.0404	4.3945
300016	0.9933	0	0	1	2.5649	0.7744	0.0404	5.3230
300017	0.8708	1	0	0	2.5649	0.9707	0.0404	4.7622
300018	0.7620	0	0	1	2.5649	1.1459	0.0404	4.5539
300019	0.9687	0	0	0	2.5649	0.6925	0.0404	4.8828
300020	0.8200	0	0	0	2.5649	0.5867	0.0283	5.3132
300021	1.2879	1	0	0	2.5649	0.4896	0.0283	4.0431
300022	0.9893	1	0	1	2.5649	0.9392	0.0283	5.1818
300023	0.8408	1	0	0	2.5649	0.9195	0.0283	4.6250
300024	0.8882	1	0	1	2.5649	0.8230	0.0283	4.7362
300025	1.2889	1	0	1	2.5649	0.5252	0.0283	4.3307
300026	0.7750	1	0	0	2.5649	1.0121	0.0283	5.0563
300027	1.4044	1	0	1	2.5649	0.6136	0.0283	4.0775
300029	0.4846	0	0	1	2.4849	0.3986	-0.0280	4.5539
300030	0.3596	1	1	1	2.4849	0.5255	-0.0280	5.0752
300031	0.5145	1	0	0	2.4849	0.5650	-0.0280	4.6728
300032	0.4789	1	0	1	2.4849	0.5897	-0.0280	5.2627
300033	0.3330	0	0	1	2.4849	0.6904	-0.0280	4.6052
300034	0.4613	1	0	1	2.4849	0.4567	-0.0280	4.4427
300035	0.3417	0	0	0	2.4849	0.4807	-0.0280	4.2195
300036	0.6429	0	0	1	2.4849	0.3141	-0.0280	5.0106
300037	0.4488	0	0	1	3.3673	0.8203	0.0188	4.5433
300038	0.3846	1	0	1	3.3673	0.5606	0.0188	4.1431
300039	0.1968	1	0	0	3.3673	0.7971	0.0188	4.7536

Continued

300040	0.2691	1	1	1	3.3673	0.6200	0.0188	4.7274
300041	0.2745	0	0	0	3.3673	0.8638	0.0188	4.9127
300042	0.3449	0	0	0	3.3673	0.6468	0.0188	4.8442
300043	0.1373	1	0	1	3.3673	0.9180	0.0098	4.7449
300044	0.2909	1	0	1	3.3673	0.3728	0.0098	5.0370
300045	0.2700	1	1	1	3.3673	0.6650	0.0098	4.6347
300046	0.2337	1	1	0	3.3673	0.7146	0.0098	4.2767
300047	0.1757	0	0	0	3.3673	0.5747	0.0098	5.3181
300048	0.2377	1	0	1	3.3673	0.7317	0.0098	4.3695
300049	0.1832	1	0	0	3.3673	0.6238	0.0098	4.5644
300050	0.3094	1	0	1	3.3673	1.3540	0.0098	4.5951
300051	0.1003	1	1	1	3.6376	0.6032	0.0205	4.2905

Data source: The variables of finance and experienced are from Hexun, Cninfo, Sina Finance<sup>2</sup>; Enterprises' IPO data are from CSMAR database.

**Table 2.** Definition of variables.

Name of variable	Description and calculation of variables
lnage	Logarithm of board secretary's age
edu	Equals to 1 for secretaries with master degree or beyond, and equals to 0 for the rest
lnwage	Logarithm of board secretary's yearly salary
growth	The average main business revenue growth in last three years before IPO
estyear	Listing service life = ln (length between time to market and founding time of the company)
lag	Logarithm of time interval between issuing date and launch date
subscription	Subscription rate of online issuance
debt	Asset-liability ratio at the end of year before IPO
size	Company's size, logarithm of company's general assets at the end of year before IPO
IPO size	IPO size = ln (number of share in issue*issue price)
ROA	ROA at the end of year before IPO = net margin/total assets
independ director	Proportion of independent directors
cpa firm rank	Equals to 1 for companies employing top ten accounting firm; equals to 0 for the rest
market return	Market return on the day of IP
Industry	Industry Dummy
Year	Year Dummy

## 4. Empirical Results and Analysis

### 4.1. Descriptive Statistics

Descriptive statistics of all variables have been shown in **Table 3**. The mean,

<sup>2</sup><http://www.hexun.com/http://www.cninfo.com.cn/cninfo-new/index>, <http://finance.sina.com.cn/>

**Table 3.** Descriptive statistics of variables.

Variables	N	Mean	SD	Q1	Med	Q3	Min	Max
underpricing	352	0.330	0.341	0.081	0.245	0.514	-0.142	1.519
finance	352	0.724	0.447	0.000	1.000	1.000	0.000	1.000
experienced	352	0.114	0.318	0.000	0.000	0.000	0.000	1.000
gender	352	0.722	0.449	0.000	1.000	1.000	0.000	1.000
edu	352	0.426	0.495	0.000	0.000	1.000	0.000	1.000
lnage	352	3.689	0.165	3.569	3.701	3.784	3.258	4.159
lnwage	352	11.920	0.620	11.513	11.887	12.281	10.612	13.677
lag_number	352	3.160	0.346	2.996	3.258	3.401	2.398	3.638
market return	352	0.002	0.043	-0.029	0.002	0.028	-0.100	0.106
subscription	352	1.163	1.129	0.553	0.800	1.259	0.290	7.164
lag	352	2.494	0.295	2.303	2.398	2.639	2.197	3.584
IPO size	352	10.929	0.540	10.550	10.870	11.272	9.846	12.332
estyear	352	4.743	0.346	4.500	4.741	4.956	3.970	5.455
debt	352	0.375	0.160	0.261	0.377	0.509	0.045	0.735
size	352	19.593	0.581	19.180	19.545	19.979	18.533	21.488
Independ director	352	0.370	0.051	0.333	0.333	0.429	0.333	0.600
growth	352	0.496	0.495	0.253	0.377	0.585	-0.060	3.569
ROA	352	0.180	0.076	0.127	0.165	0.216	0.067	0.433
cpa firm rank	352	0.313	0.464	0.000	0.000	1.000	0.000	1.000

median, minimum and maximum of underpricing equals to 0.330, 0.245, -0.142 and 1.519, respectively, suggesting IPO underpricing is a common phenomenon in Chinese GEM market with a relatively high IPO underpricing rate. The mean of finance equals to 0.724, suggesting 72.4% percent of board secretaries have financial background. As shown in **Table 3**, the ration of the number of board secretaries with financial background and that of those without financial background is much greater than 1, and remain steady. The mean of experienced is 0.114, suggesting only 11.4% of board secretaries have experience working as board secretaries in other company. The mean of gender is 0.722, suggesting that 72.2% of board secretaries are men. The mean of edu is 0.426, suggesting 42.6% of board secretaries have master degree or higher academic qualification; the mean, median and standard deviation of lnage are 3.689, 3.701 and 0.165, respectively, among which, the mean is quite close to the median, presenting equal age distribution with small distribution among board secretaries. The mean, median, standard deviation of lnwage are 11.920, 11.887 and 0.620 respectively, in which the mean is quite close to the median, suggesting that the wages of board secretaries are distributed equally, with small fluctuation. The mean and standard deviation of estyear, debt, proportion of independent director, growth, ROA, cpa firm rank, are 4.743 and 0.346, 0.375 and 0.160, 0.370 and 0.051, 0.496

and 0.495, 0.180 and 0.076, 0.313 and 0.464 respectively, suggesting that 31.3% of GEM IPO companies chose top 20 accounting firms.

## 4.2 Empirical Result

Regression analysis result of relations between board secretaries' financial background and IPO underpricing rate has been illustrated in **Table 4**. In model (1), the coefficient of experienced equals to  $-0.0670$  and presents negative significant relations on level of 5%, which suggests that board secretaries with financial background can decrease IPO underpricing rate. This is because financial background allows board secretaries to explain and disclose financial information from a more professional perspective, which also proves hypothesis H1. In model 2, the coefficient of experienced equals to  $-0.1017$  and present negative significant correlation with IPO underpricing rate on level of 5%, suggesting board secretaries with experiences working as board secretary in other companies can decrease IPO underpricing rate. This is because that board secretaries with related working experience better understand IPO procedure, more familiarize relative laws and regulations as well as related requirements of information disclosure, and appears to be more sensitive to relative policies, which also proves the hypothesis H2.

Besides, other several controlled variables presents significant relations with IPO underpricing rate: the higher the subscription rate is, the more IPO-bound companies the month before, the longer the founding time of the company, the larger the IPO scale is, the lower the IPO underpricing rate will be [9] [32] [33] [34] [35]; the higher the market return on the day and the ROE are, the higher the IPO underpricing rate will be [9].

## 5. Robust Test

Considering the influence of market return on IPO underpricing, adopting methods proposed by Huang Jun [36] and Chen Gongmeng [37], in which adjusted underpricing rate has been taken as explained variables. The result has been shown in **Table 5**. Adjusted IPO underpricing rate = (closing price on first-day of IPO)/issue price-market return on the day. As **Table 5** shown, in model (1), the coefficient of experienced equals to  $-0.0669$  and presents negative significant relations on level of 5%, which robustly supports the conclusion that board secretaries with financial background can decrease IPO underpricing rate. In model 2, the coefficient of experienced equals to  $-0.1028$  and present negative significant correlation with IPO underpricing rate on level of 5%, robustly supporting the conclusion that board secretaries with experiences working as board secretary in other companies can decrease IPO underpricing rate. To control "Hot Issue", adding Hot Issue variable, the average IPO underpricing rate on the day in the month before IPO, may be appropriate [32]. As **Table 6** shown, In model (1) and (2), the coefficient of finance is  $-0.0660$  and the coefficient of experienced is  $-0.1028$ , which also robustly support H1 and H2.

**Table 4.** Board secretary's personal background and IPO underpricing.

VARIABLES	(1)	(2)
finance	-0.0670** [0.0235]	
experienced		-0.1017** [0.0186]
edu	0.0251 [0.3589]	0.0337 [0.2246]
gender	-0.0066 [0.8322]	-0.0024 [0.9388]
lnage	0.0399 [0.6351]	0.0420 [0.6171]
subscription	-0.0488*** [0.0005]	-0.0498*** [0.0004]
lnwage	0.0085 [0.7185]	0.0070 [0.7668]
lag	-0.0034 [0.9540]	-0.0155 [0.7922]
lag_number	-0.2873*** [0.0000]	-0.3025*** [0.0000]
market return	1.7612*** [0.0000]	1.8253*** [0.0000]
estyear	-0.0942** [0.0241]	-0.0931** [0.0257]
debt	-0.0488 [0.7231]	-0.0136 [0.9221]
size	0.0783 [0.1110]	0.0680 [0.1665]
independ director	-0.2875 [0.2829]	-0.2826 [0.2909]
IPO size	-0.2025*** [0.0000]	-0.1977*** [0.0000]
cpa firm rank	0.0295 [0.3296]	0.0272 [0.3674]
growth	-0.0197 [0.5157]	-0.0256 [0.4003]
ROA	0.5212* [0.0763]	0.5437* [0.0647]
Year	Control	Control
Industry	Control	Control
Constant	2.5613*** [0.0010]	2.7450*** [0.0005]
Observations	352	352
Adjusted R-squared	0.5027	0.5033
F	10.59	10.61

\*\*\*,\*\*, \* represent significant correlation on levels of 1%, 5% and 10%, respectively.

**Table 5.** Robust test.

VARIABLES	(1)	(2)
finance	-0.0669** [0.0250]	
experienced		-0.1028** [0.0183]
edu	0.0260 [0.3456]	0.0348 [0.2143]
gender	-0.0069 [0.8250]	-0.0027 [0.9326]
lnage	0.0354 [0.6761]	0.0375 [0.6581]
subscription	-0.0486*** [0.0006]	-0.0497*** [0.0005]
lnwage	0.0097 [0.6824]	0.0082 [0.7295]
lag	-0.0052 [0.9305]	-0.0173 [0.7695]
lag_number	-0.2855*** [0.0000]	-0.3008*** [0.0000]
Market return	0.7738** [0.0297]	0.8389** [0.0191]
estyear	-0.0946** [0.0247]	-0.0935** [0.0262]
debt	-0.0516 [0.7103]	-0.0158 [0.9100]
size	0.0804 [0.1049]	0.0700 [0.1579]
Independent director	-0.2878 [0.2863]	-0.2828 [0.2944]
Ipo size	-0.2047*** [0.0000]	-0.1999*** [0.0000]
Cpa firm rank	0.0308 [0.3125]	0.0285 [0.3486]
growth	-0.0189 [0.5363]	-0.0249 [0.4177]
ROA	0.5161* [0.0817]	0.5390* [0.0693]
Year	Control	Control
Industry	Control	Control
Constant	2.5592*** [0.0011]	2.7448*** [0.0005]
Observations	352	352
Adjusted R-squared	0.4607	0.4616

\*\*\*,\*\*, \* represent significant correlations on level of 1%, 5% and 10%, respectively.

**Table 6.** Robust test.

VARIABLES	(1)	(2)
finance	-0.0660** [0.0278]	
experienced		-0.1028** [0.0184]
edu	0.0250 [0.3698]	0.0330 [0.2423]
gender	-0.0065 [0.8351]	-0.0019 [0.9519]
lnage	0.0353 [0.6778]	0.0371 [0.6618]
subscription	-0.0475*** [0.0013]	-0.0477*** [0.0012]
lnwage	0.0099 [0.6781]	0.0085 [0.7208]
lag	-0.0077 [0.8975]	-0.0218 [0.7157]
lagunderpricing	0.0230 [0.7713]	0.0405 [0.6069]
lag_number	-0.2835*** [0.0001]	-0.2972*** [0.0000]
market return	0.7942** [0.0289]	0.8758** [0.0166]
estyear	-0.0949** [0.0245]	-0.0941** [0.0255]
debt	-0.0548 [0.6945]	-0.0212 [0.8805]
size	0.0813 [0.1021]	0.0717 [0.1494]
independ director	-0.2947 [0.2776]	-0.2948 [0.2768]
IPO size	-0.2077*** [0.0000]	-0.2051*** [0.0000]
cpa firm rank	0.0306 [0.3164]	0.0282 [0.3543]
growth	-0.0185 [0.5457]	-0.0242 [0.4312]
ROA	0.5142* [0.0834]	0.5362* [0.0711]
Year	Control	Control
Industry	Control	Control
Constant	2.5670*** [0.0011]	2.7585*** [0.0005]
Observations	352	352
Adjusted R-squared	0.4591	0.4603
F	8.840	8.879

\*\*\*, \*\*, \* represent significant correlations on level of 1%, 5% and 10%, respectively.

## 6. Conclusion

Driven by information, the capital market will necessarily be influenced by the quality of information disclosed by the board secretary that serves as the key “bridge” linking the issuing company and the capital market. Information asymmetry has seriously restricted investors’ understanding enterprises’ status, development perspective, potential risks and so on, thus, it appears to be more essential for the company to disclose related information to allow investors to provide reasonable quotations during pricing inquiring. Board secretary is playing an irreplaceable role in information disclosure during enterprises IPO, which, though, has received little attention from academic circle. This paper is to study the influence of background of board secretary on IPO underpricing, the result of which shows that board secretaries with financial background or experiences working as board secretary in other companies can decrease enterprise’s IPO underpricing rate. Based on the research, conclusion has been drawn to provide reference for enterprises’ recruitment, currently occupation, stock-based incentives and so on. Meanwhile, supervision on Chinese GEM listed companies’ information disclosure should also be enhanced to reduce information asymmetry, ensure reasonable quotation of new issue thus to promote the healthy development of capital market.

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