Unexpected Information, Investor Attention, and the Contagion Effect of IPO Withdrawal *

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Abstract
We investigate whether firms’ withdrawals of their initial public offering (IPO) applications, as announced by the China Securities Regulatory Commission (CSRC) on 3 April 2013, lead to a contagion effect on the market reaction to other listed firms sponsored by the same agent. We find that listed firms that have the same sponsor as an “IPO withdrawing firm” face a negative market reaction, suggesting that firms’ IPO withdrawals make investors worried about the quality of sponsors and cause negative abnormal equity returns for listed firms with the same sponsor. We also find that this contagion effect is concentrated among listed firms with good accounting information because this event provides more unexpected negative information for investors. In addition, the contagion effect is concentrated among listed firms with more media or analyst coverage. This is because media and analyst coverage attracts investors’ limited attention, making them more pessimistic and finally leading to an increase in the contagion effect. Our study provides support for the contagion theory and investigates the effectiveness of the CSRC’s special checks on financial statements, which may give some suggestions for the healthy development of the IPO market.

Keywords: IPO Withdrawal, Contagion Effect, Sponsor Reputation, Unexpected Information, Investor Attention

CLC Codes: F23, G14

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I. Introduction

The securities issuance sponsorship system is a significant institutional arrangement aiming to assure the information quality of firms applying for initial public offerings (IPOs) in China. However, the frequent performance deterioration of IPO firms has resulted in widespread queries about the credibility of the sponsoring institutions. On 28 December 2012, the China Securities Regulatory Commission (CSRC) published the Notice of Conducting Special Checks on 2012 Financial Statements of IPO Firms, which provided that all IPO firms should complete self-inspection by 31 March 2013 and that the CSRC would conduct random inspections after that date. The IPO process of firms in which problems were detected would be terminated, and the responsible intermediaries would be punished. As a result, 166 firms withdrew their IPO applications, and this was announced by the CSRC on 3 April 2013.2 Thereafter, the media extensively reported the withdrawals that impaired the reputation of the sponsoring institutions, as the following headlines illustrate: “IPO Withdrawal Tide: 76 firms give up within a week while 30% of GEM firms quit” (Securities Times); “IPO Financial Inspection Outcome: Minsheng, Everbright and Haitong most hurt” and “Everbright Securities’ redemption from Sponsorgate” (Sina Finance).3

Thus, this paper aims to investigate whether IPO withdrawal is contagious. Recent research defines the contagion effect as the phenomenon whereby an event that adversely affects one firm also has a similar influence on related firms (Leitner, 2005; Gleason et al., 2008). In this paper, the contagion effect of IPO withdrawal means that this event causes a negative market reaction towards the listed firms sponsored by the same agent as the “IPO withdrawing firm” (hereinafter “related firms”). This is because an IPO withdrawal probably suggests bad sponsorship quality, causing investors to worry about the accounting information quality of related firms and driving related firms’ stock prices down during the window period. Unlike the research on market reaction or the signal effect of IPO withdrawal, our study focuses on related firms rather than the withdrawing firms or the sponsors. We divide the listed firms into related firms and unrelated firms on the basis of whether their sponsors are the same institution and compare their pre- and post-withdrawal cumulative abnormal return (CAR) value to identify the contagion effect. The empirical results show that the CAR of related firms declines and is significantly lower than that of unrelated firms during the event window, which confirms the contagion effect.

We further document how impairment of the sponsor’s reputation, the accounting information quality of related firms, and investor attention affect the contagion effect of IPO withdrawal.

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2 11 from the Main Board, 49 from the SME Board, and 106 from the Growth Enterprise Market.
3 See http://stock.stcn.com/2013/0401/10385230.shtml; http://finance.sina.com.cn/stock/newstock/zxdt/20130406/201915059450.shtml; http://finance.sina.com.cn/focus/gdzqbjm/.
First, a sponsor’s reputation plays a key role in guaranteeing information quality (Booth and Smith, 1986). Once the sponsor’s reputation is damaged, the listed firms sponsored by it are undoubtedly implicated (Carter and Manaster, 1990). We use the number and fraction of IPO withdrawing firms backed by a sponsor to measure the degree of its reputation impairment. The larger the number or fraction of IPO withdrawing firms, the stronger the contagion effect faced by the related firms.

Second, the accounting information quality of related firms affects the degree of the contagion effect on them. On the one hand, when the quality of their \textit{ex ante} information is high, the related firms may not be infected or may be less infected because the market trusts that the IPO firms’ withdrawal would not change investors’ expectations of the related firms. On the other hand, the psychological gap and unexpected information are the main explanatory bases for the contagion effect (Manz, 2010; Oh, 2013). Sponsors’ involvement in IPO withdrawal is incremental information to the investors of firms with higher information quality which may shake the market’s trust and lead to negative response. We use the degree of earnings management, performance deterioration, and whether the firm is audited by a Big Ten firm to measure information quality. The results show that the contagion of IPO withdrawal mainly occurs in the firms with high information quality, indicating that sponsors involved in IPO withdrawal provide incremental information to the investors of high-quality firms.

Finally, investor attention also affects the degree of the contagion effect. Investors must follow the firms prior to making buy-in or sell-out decisions, and the level of attention will affect their decisions (Baber and Odean, 2008). In an IPO withdrawal event, the sponsor may be well known by investors if \textit{ex ante} attention to the withdrawing firm is high enough, and investors may identify the related firms more easily. We use the coverage of analysts and the finance media to measure investor attention and find that the contagion of IPO withdrawal occurs more in firms that attract a high level of attention.

Our study contributes to several strands of the literature in the following ways. First, existing studies find that for firms in the same industry, having the same auditors or creditors can lead to the contagion effect among related firms. We document market reaction to related firms through the sponsor channel, indicating the information assurance function of sponsors in the IPO process. Thus, our study adds additional evidence to the literature with regard to the contagion effect by investigating a new contagion channel. Second, we use an exogenous event – IPO withdrawal – to indirectly verify the market value of sponsor reputation, accounting information, and media coverage, which contributes to the related literature. Third, this study confirms the rationality and validity of the CSRC’s special inspection of financial statements which inspired the reform of the IPO system and the orderly development of capital markets in China.
II. Theoretical Framework and Hypothesis Development

2.1 Literature on the Contagion Effect

The contagion effect is defined as the situation where events that adversely affect a firm also have a similar influence among firms related to it (Leitner, 2005; Gleason et al., 2008). Gleason et al. (2008) find that accounting restatements induce share price declines among non-restating firms in the same industry and that investors impose a larger contagion penalty on the stock prices of peer firms with high earnings and high accruals when peer and restating firms use the same external auditor. Jorion and Zhang (2009) find that bankruptcy announcements cause negative abnormal equity returns and increases in credit default swap (CDS) spreads for creditors and that this credit contagion becomes stronger when the bankruptcy firm holds larger leverage. By revealing information on a common fundamental factor and thereby affecting the behaviour of creditors, the failure of a single firm can trigger the failure of another firm (Manz, 2010). Mistrulli (2011) finds that a bank’s default may spread to other banks through inter-bank linkages and that the inter-bank market is conducive to financial contagion. Oh (2013) shows that in the case of the contagion of a liquidity crisis between two non-financial institutions that have the same creditor, the contagion effect of a liquidity crisis faced by a firm with a lower failure point is likely to be severer than that faced by a firm with a higher failure point. Bereskin and Cicero (2013) document that Delaware-incorporated firms with staggered boards and no outside blockholders increased the compensation of chief executive officers (CEOs) following the mid-1990s Delaware legal cases that strengthened their ability to resist hostile takeovers and that non-Delaware firms subsequently increased CEO compensation when the rulings affected a substantial number of firms in their industries. Chiu et al. (2013) find evidence of earnings management contagion in firms with interlocked boards. A firm is more likely to manage earnings when it shares a common director with a firm that is currently managing its earnings, and the contagion is stronger when the shared director has a leadership position. Francis and Michas (2013) document that audit offices with client restatements in the past are more likely to have new client restatements in the future, suggesting a contagion of audit failures over time, and that this effect can be mitigated by large office size and a relatively high use of industry expertise. Liu et al. (2014) find that the Peizhong Bai corruption case led to a stock price drop not only for the firm but also for other firms in the same industry due to information transmission. Moreover, government ownership has a leverage effect which strengthens the contagion in government-controlled firms. Elliot et al. (2014) find that integration strengthens the connection among business sections and the contagion effect, while the possibility of adverse events, such as bankruptcy and default, declines due to less dependency on the assets of a certain section. Diversification intensifies the independence of each section and reduces the contagion effect but increases the possibility of an adverse
event occurring in each section. Kedia *et al.* (2015) document that peer firms begin managing earnings after an earnings restatement is announced by target firms in their industry or in their metropolitan statistical area.

In addition, there is a body of literature on a macro contagion effect, such as the contagion due to the significant increases in cross-market linkages (Caporale *et al.*, 2005) and international investors co-holding cross-market assets (Boyer *et al.*, 2006); therefore, a financial crisis can be contagious from one country or region to another (Inci *et al.*, 2011; Zhao *et al.*, 2013). To be specific, Cespa and Foucault (2014) suggest that illiquidity contagion among stocks will lead to a significant decline in the whole market because stocks in the market are correlated. Wang *et al.* (2014) find that the contagion effect is dominant in

| Authors | Contagion Source | Channel | Consequence | Determinant (+/-) |
|---------|-----------------|---------|-------------|------------------|
| Chiu *et al.* (2013) | Financial restatement | Same directors | Earnings management in other firms | Importance of director position (+) |
| Francis and Michas (2013) | Financial restatement of audit client | Same auditor | Low earnings quality of other clients | Size and expertise of audit firms (-) |
| Gleason *et al.* (2008) | Financial restatement | Intra-industry | Stock price decline in non-restating firms | Size and same external auditor (+) |
| Kedia *et al.* (2015) | Financial restatement | Intra-industry or proximity | Earnings management in other firms | Cost of financial restatement (-) |
| Oh (2013) | Liquidity crisis of debtor | Same creditor | Increased liquidity risk of other debtors | Operational risk of the debtor (-) |
| Jorion and Zhang (2009) | Bankruptcy announcement by debtor | Debt contract | Negative market reaction and default risk of creditor | Leverage of the debtor (+) |
| Mistrulli (2011) | Economic crisis in a bank | Inter-bank market | Economic crisis in other banks | Inter-bank relationship (+) |
| Manz (2010) | Operational failure | Debt contract | Operational failure of creditor | Relevance of fundamental factor (+) |
| Bereskin and Cicero (2013) | Delaware-incorporated firms with staggered boards increased CEO compensation | Intra-industry | Other Delaware firms and non-Delaware firms increased CEO compensation | Economic crisis in related country or region |
| Caporale *et al.* (2005); Boyer *et al.* (2006); Inci *et al.* (2011); Bekaert *et al.* (2014); Elliot *et al.* (2014); Cespa and Foucault (2014); Garleanu *et al.* (2015); Zhao *et al.* (2013); Wang *et al.* (2014) | Economic crisis in one country or region | Globalisation, cross-market transaction, or same investors | Economic crisis in related country or region |
the Chinese credence goods market, indicating that ineffective supervision and public distrust in regulation are the primary reasons for the credence crisis. Bekaert et al. (2014) document that the US market risk has great contagion effect on stock portfolios in one industry, where the effect gets strengthened as the quality of economic fundamentals declines. Garleanu et al. (2015) find that events that adversely affect investors in one financial market induce similar movements in other markets across the world because the markets are related by investors and firms.

Similar to the literature on medical contagion, the existing literature describes the sources, channels, consequences, and determinants of contagion. In Table 1, contagion sources are defined as the adverse events occurring in a firm, which are usually financial restatement, debt crisis, operational risk, and so forth; a contagion channel is defined as the connection between the firm and the other firms, such as having the same director or auditor or being in the same industry; and contagion consequences are defined as adverse events occurring in related firms, in which the common indicators of consequence include earnings management, stock price reaction, and risk volatility. Such research investigates, through channel analyses, the circumstances under which the contagion effect can be strengthened.

Besides, the usual explanation of contagion is the market’s concern about adverse events or the market panic effect. Gleason et al. (2008) claim that share price declines among non-restating firms in the same industry reflect investors’ concerns about accounting quality. Jorion and Zhang (2009) conclude that the bankruptcy announcement of a debtor induces liquidity risk concerns in the market, resulting in negative reactions to creditors. Oh (2013) considers that creditors will reduce loans to other debtors because of the extensive liquidity risk when one borrower encounters a debt crisis, leading to other debtors falling into crisis due to limited credit availability. Bereskin and Cicero (2013) argue that other Delaware intra-industry firms and non-Delaware firms subsequently increased CEO compensation because they were concerned about the risk of losing excellent CEOs. Thus it can be seen that market concern is one of the driving factors of contagion.

2.2 Sponsors and their Reputation

Sponsors can act as an agency of information disclosure and certification (Booth and Smith, 1986; Carter and Manaster, 1990): that is, guidance from sponsors can assist IPO firms to disclose high-quality information, and sponsors can guarantee the reliability of firms’ public information through their reputation. After China adopted the IPO sponsorship system in 2004, the Interim Measures for Stock Issuing and Listing Sponsorship System promulgated in 2004 and the Measures for the Administration of the Sponsorship Business of Securities Issuance and Listing promulgated in 2008 provided sponsors with the power to examine IPO firms’ financial statements during the 2-year pre-listing guidance period and the 2-year post-listing supervision period, which clarified the legal obligation of sponsors.
However, the sponsorship system does not seem to have been as effective as expected. Declines in corporate performance after IPO have frequently occurred, leading to the public questioning the sponsors’ guarantee. Empirical evidence shows that the sponsorship system in China has only changed the timing of the adoption of a corporate accounting policy and has not raised information quality as anticipated (Wang and Lian, 2010). The release of the *Notice of Conducting Special Checks on 2012 Financial Statements for IPO Firms* by the CSRC aims to change this situation.

Reputation is an important determinant that influences the effectiveness of information production and the certification agency function by sponsors. Using their industry publicity, expertise, and relations with the monitoring department, sponsors are capable of seeking superior issuing firms whose values are well matched with their reputation (Beatty and Ritter, 1986; Dewenter and Field, 2001). In this situation, sponsors generate a high income as well as avoiding the risk of reputation impairment. Additionally, IPO firms can reduce the issue discount on the first day and may have superior long-term performance by choosing sponsors with high service quality and reputation (Carter and Manaster, 1990; Tinic, 1998; Jain and Kini, 1999; Guo and Zhao, 2006). Therefore, the impairment of sponsors’ reputation not only affects their own financial benefits but also creates doubt in the market about their ability and concern about their recommended IPO firms, which further results in negative valuations of these firms.

### 2.3 Hypothesis Development

#### 2.3.1 Contagion of IPO withdrawal

According to the *Notice of Conducting Special Checks on 2012 Financial Statements for IPO Firms* issued by the CSRC on 28 December 2012, all IPO firms were required to complete a self-inspection by 31 March 2013 and the CSRC were to conduct random inspections after that date. Subsequently, the CSRC reported on 3 April 2013 that 166 firms had withdrawn their IPO applications. IPO withdrawals following the *Notice* have released a negative signal in general. Following Gleason *et al.* (2008) and referring to Table 1, we conclude that IPO withdrawal has a contagion effect, meaning that listed firms sponsored by the same agent as the IPO withdrawing firms are subject to a negative market reaction, which suggests that firms’ IPO withdrawals create doubt about the sponsors’ capability and concern about information quality.

1. **Contagion source: IPO withdrawal.** According to the CSRC regulation on special checks, all IPO firms should have completed self-inspection by 31 March 2013 and the CSRC should conduct random inspections after that date. IPO firms withdrawing applications before 31 March 2013 may be an indication of inferior financial information and sponsor quality. Those firms could have turned to Hong Kong or overseas markets; however, the qualifications for listing in those markets are no less restrictive than those in
China and sponsors have to be qualified, which is costly, while the spending on IPOs in China would become sunk costs. Thus, investors would have been more likely to consider IPO withdrawal as a negative signal from these firms.

2. Contagion channel: same sponsors. Besides research on market reaction and signal transmission, we also investigate the contagion effect on the listed firms related to the withdrawing firms. Withdrawing firms have a contagion effect on listed firms because their sponsors are the same institution, which makes the sponsor the contagion channel.

3. Contagion consequence: stronger negative market reaction to listed firms with the same sponsor. We verify the contagion effect by the CAR, consistent with Gleason et al. (2008) and Jorion and Zhang (2009).

4. Contagion determinants: whether the firms share the same sponsor and its reputation impairment. The negative market reaction to related listed firms is stronger than that to unrelated listed firms, and the negative reaction is further increased as the sponsor’s reputation is impaired more severely.

5. Explanation: widespread concern about accounting information in the market. IPO withdrawal implies the systematic risks of the sponsor service (Francis and Michas, 2013), such as collusion with clients or incapability. Due to the learning effect, investors are likely to distrust listed firms sharing the same sponsor and to evaluate their information quality negatively. Therefore, we formulate the following hypothesis:

**H1:** Since related firms share the same sponsor with IPO withdrawing firms, the related firms encounter a stronger market reaction than unrelated firms when the sponsor’s reputation is questioned, and this contagion effect of IPO withdrawal is strengthened by severe impairment of the sponsor’s reputation.

2.3.2 Information quality, unexpected information, and the contagion of IPO withdrawal

According to the literature on market reaction and signal transmission, markets respond positively to high-quality information and good news (Ball and Brown, 1968). In the case of firms that have previously provided high-quality information, these firms are credible and reliable to investors even if their sponsors are involved in IPO withdrawals. Thus these firms may not be affected or may be less affected by contagion as high-quality information could play a governance role. However, the contagion effect may be strengthened if a firm has better fundamental factors. Manz (2010) finds that the failure of a single firm can trigger the failure of another firm, and this effect is strengthened as the relevance of fundamental information increases and weakened as the firm gets close to bankruptcy. Oh (2013) documents that the lower the operational risk of the liquidity crisis firms, the stronger the contagion on the liquidity of debtors sharing the same creditors resulting from the
incremental information and psychological gap. Furthermore, a great discrepancy leads to unexpected information resulting in contagion when a well-behaved firm suffers an adverse event. In Manz’s (2010) design, it is out of the market’s expectation that a firm with highly relevant fundamentals goes wrong, leading to stronger negative reaction, while the market reacts indifferently to a firm with lowly relevant fundamentals that becomes distressed, because this is within the market’s expectation. Similarly, a firm considered to be less risky in its operation being in trouble indicates intensive unexpected information. Zhao et al. (2013) use unexpected return to investigate contagion during the US subprime mortgage crisis and the European debt crisis between the Shanghai market and 27 other markets over the world; they find that a nonlinear change in unexpected return can forecast crisis.

From the perspective of accounting information quality, high-quality firms withdrawing IPO applications may release negative unexpected information to the market, inducing an intense negative reaction. The market only reacts to unexpected information that lasts for a while (Ball and Brown, 1968), or even overreacts (Bondt and Thaler, 1985); therefore, events that are unexpected may trigger an intense market reaction. Yang et al. (2008) find that the information disclosure violations of special treatment (ST) firms do not induce a strong reaction from the market because of the psychological expectation from investors while the violations of non-ST firms do. Similarly, an IPO withdrawal by a firm with high information quality is not expected by investors, which leads to a more intense negative market reaction, and thus the contagion effect is stronger. Accordingly, we formulate the following alternative hypotheses:

**H2a:** The higher the firm’s accounting information quality, the weaker the contagion effect of IPO withdrawal.

**H2b:** The higher the firm’s accounting information quality, the stronger the contagion effect of IPO withdrawal.

### 2.3.3 Investor attention, limited attention, and the contagion of IPO withdrawal

Barber and Odean (2008) point out that investors must follow firms prior to making buy-in or sell-out decisions, and the level of their attention will affect their decisions. Since the media and analysts are the primary sources of investors’ attention, the more heavily a firm is followed by analysts or covered by the press, the stronger the contagion effect of its IPO withdrawal could be. The reasons are as follows:

1. The press and analysts can attract limited attention from the public. Attention is a scarce recognition resource (Hirshleifer and Teoh, 2003), and the press can influence the decisions of the public by drawing their attention to news reports (Meschke, 2002). Information released by the press can trigger overall market volatility leading to significant changes in corporate value (Nguyen, 2015); thus the earnings announcement effect will be
intensified when investors’ limited attention is attracted to the announcement (Quan and Wu, 2010).

2. Investor sentiment can be influenced by media or analyst reports. For example, media reporting can lead to large amounts of buy-in transactions by making investors optimistic, and this affects market response (Nguyen, 2015). Optimistic investors make stock prices more sensitive to good news, while pessimistic investors make stock prices more sensitive to bad news (Baker and Wurgler, 2006).

3. Media or analyst reports can affect investor recognition. A firm is well known by investors when it is covered more heavily by analysts or the media, and investor recognition of this firm, which affects market reaction to earnings information directly, becomes higher (Barber and Odean, 2008). A firm’s earnings information is reflected into its stock price more quickly as short-term attention increases (Fang and Peress, 2009).

Even though an IPO withdrawal indicates the systematic risk of the firm and sponsor, not all investors pay attention to the withdrawal event; for those who have paid attention to the event, they may not understand it; and for those who understand the event, they may not dominate the market sentiment. However, media and analyst coverage can attract limited market attention to the event and the withdrawing firm and can additionally induce market pessimism about accounting information quality. Under these circumstances, media and analyst coverage amplifies the contagion effect of IPO withdrawal by attracting limited attention from the market. Thus, we develop the following hypothesis:

H3: The more attention is drawn from the market to the firm, the stronger the contagion effect of IPO withdrawal.

III. Research Design

3.1 Sample Selection

The sample selection process is as follows:

1. We collect data from the IPO waiting and withdrawal lists up to 3 April 2013 announced by the CSRC.

2. Firm specific data, including listing dates, sponsors, and other financial indicators, are obtained from the Chinese Stock and Market Accounting Research (CSMAR) database for all 2,470 firms listed on the Shanghai and Shenzhen stock exchanges by the end of 2012.

3. We define firms as “related firms” if they have the same sponsor as the IPO withdrawing firm and as “unrelated firms” otherwise.

4. Excluding observations in the financial industry, with missing main variables, and delivering annual reports on 3 April 2013, we finally obtain 2,161 firm observations. Because of unavailable data for information quality and market attention indicators, some of
these observations are excluded in the regression.

Table 2 presents the overall information on Chinese sponsors. We find the following:

1. 934 firms sponsored by 74 institutions applied for IPOs; of these firms, 166 sponsored by 54 (i.e. 73%) institutions withdrew their applications (i.e. the withdrawal rate is 17.78%). Moreover, among the total of 233 sponsoring institutions, 20 were not involved in IPO withdrawals and 159 did not sponsor any IPO applications during the sample period.

Table 2  Withdrawal Events Involving Sponsors on 3 April 2013

| Sponsoring Institution                  | Number of sponsored IPO firms | Number of IPO withdrawals | Number of sponsored listed firms | Market share |
|-----------------------------------------|-------------------------------|---------------------------|---------------------------------|--------------|
| Guosen Securities                       | 68                            | 15                        | 150                             | 6.073%       |
| China Securities                        | 54                            | 12                        | 30                              | 1.215%       |
| Minsheng Securities                     | 31                            | 11                        | 28                              | 1.134%       |
| Haitong Securities                      | 34                            | 9                         | 88                              | 3.563%       |
| China Merchants Securities              | 58                            | 9                         | 80                              | 3.239%       |
| GF Securities                           | 56                            | 8                         | 116                             | 4.696%       |
| Huatai United Securities                | 32                            | 8                         | 49                              | 1.984%       |
| Chinalin Securities                     | 37                            | 7                         | 10                              | 0.405%       |
| CITIC Securities                        | 40                            | 6                         | 101                             | 4.089%       |
| Everbright Securities                   | 27                            | 5                         | 66                              | 2.672%       |
| Qilu Securities                         | 26                            | 5                         | 10                              | 0.405%       |
| Essence Securities                      | 26                            | 4                         | 29                              | 1.174%       |
| Orient Securities                       | 7                             | 4                         | 16                              | 0.648%       |
| Pingan Securities                       | 24                            | 4                         | 134                             | 5.425%       |
| Bohai Securities                        | 7                             | 3                         | 10                              | 0.405%       |
| Honyuan Securities                      | 16                            | 3                         | 26                              | 1.053%       |
| China Galaxy Securities                 | 10                            | 3                         | 23                              | 0.931%       |
| 13 sponsors with 2 withdrawing clients | 152                           | 2                         | 263                             | 10.648%      |
| 24 sponsors with 1 withdrawing client  | 146                           | 1                         | 197                             | 7.976%       |
| 54 sponsors with IPO clients and withdrawing clients | 851 | 166 | 1426 | 57.733% |
| 20 sponsors with IPO clients and no withdrawing clients | 83 | 0 | 150 | 6.073% |
| 159 sponsors without IPO clients       | 0                             | 0                         | 894                             | 36.194%      |
| 233 sponsors in total                   | 934                           | 166                       | 2470                            | 100%         |

*This number is different from that recently updated by the CSRC because some sponsors are subordinate to a common legal person.
2. Some sponsors, such as Guosen (15 firms, withdrawal rate of 22%), China Securities (12 firms, withdrawal rate of 22.22%), and Minsheng (11 firms, withdrawal rate of 35.48%), encountered relatively more withdrawals than others. Twenty four sponsors had one client withdrawing its IPO application (i.e. the average withdrawal rate is 0.685%), while 13 sponsors had two clients withdrawing IPO applications (i.e. the average withdrawal rate is 1.312%). This indicates that the number of withdrawing clients is not positively related to the sponsor’s number of clients.

3. The 54 targeted sponsors have successfully sponsored 1,426 listed firms (i.e. related firms account for 57.73% of all listed firms).

4. On the basis of market shares calculated by the number of sponsored listed firms, we find that the number of withdrawing clients is not positively related to the existing market share.

3.2 Model Design

Following Gleason et al. (2008) and Jorion and Zhang (2009), we use the event study method introduced by Fama et al. (1969) to investigate the contagion effect of IPO withdrawal using CAR. In equation (1), RepuDown, measuring the expected reputation impairment of the sponsor, has a negative correlation $\beta_{i,1}$.

$$\text{CAR}_i(t_1,t_2) = \alpha_i + \beta_{i,1}\text{RepuDown} + \beta_{i,2}\text{Size} + \beta_{i,3}\text{Lev} + \beta_{i,4}\text{RoA} + \beta_{i,5}\text{Industry} + \epsilon$$  \hspace{1cm} (1)

We apply quantile regression on equation (1) to test H2a and H2b by the median of Quality and to test H3 by the median of Focus, expecting that the correlation $\beta_{i,j}$ will be more significant in the high Focus group.

3.2.1 Calculation of CAR

We define the event date as 3 April 2013 and calculate CAR, which indicates the short-term market reaction during the withdrawal announcement, by choosing several short-term event windows. First, we regress equation (2) using stock indicators during the event window period [-155, -6] (Li et al., 2010) to estimate $\alpha_i$ and $\beta_i$:

$$R_{it} = \alpha_i + \beta_i R_{mt} + \epsilon_{it}, \hspace{1cm} (2)$$

where $R_{it}$ represents actual return for firm $i$ on date $t$, while $R_{mt}$ represents market return on date $t$ and $\epsilon_{it}$ represents random error.

Second, using estimated $\alpha_i$ and $\beta_i$, we estimate the expected normal return of each stock on every single trading day during the event window period in equation (3).

$$E(R_{it}) = \hat{\alpha}_t + \hat{\beta}_t R_{mt} \hspace{1cm} (3)$$
Then, we calculate the abnormal return of stock $i$ on date $t$ during the event window period by equation (4).

$$ AR_t = R_{it} - E(R_{it}) $$

Finally, we generate the cumulative abnormal return (CAR) of stock $i$ during $[t_1, t_2]$.

$$ CAR_i(t_1, t_2) = \sum_{t_1}^{t_2} AR_{it} $$

3.2.2 Explanatory variable

$RepuDown$ represents the degree of sponsor reputation impairment. Most sponsors are also the underwriters for a stock issuance. The common measures of underwriter reputation impairment are the underwriter’s ranking in the IPO tombstone announcement (Johnson and Miller, 1988; Carter and Manaster, 1990) and the underwriter’s market share (Megginson and Weiss, 1991). Therefore, following Huang (2005) and prior studies on underwriter reputation, we measure sponsor reputation impairment according to whether the sponsor is involved in the IPO withdrawal or not, the number of withdrawing clients, and the withdrawal rate. The indicators are as follows: $S_{giveup1c}$ represents the number of IPO withdrawing clients of a sponsor for this event; $S_{giveup1d}$ is a dummy variable which equals 1 if a listed firm is sponsored by the same institution as the withdrawing firm and 0 otherwise; $R_{giveup1c}$ is calculated as the ratio of the number of withdrawing clients to the total number of firms sponsored by the institution; $R_{giveup1d}$ is calculated as the ratio of the number of withdrawing clients of the sponsor to the number of total withdrawing firms; and $Rank1c$ is the sponsor ranking by the number of withdrawing clients, which gets larger as the number of withdrawing clients increases. As the values of the indicators become larger, the possibility of the sponsor’s reputation being impaired and the contagion spreading to related firms both increase. According to H1, the negative coefficient of $RepuDown$ indicates the contagion effect of IPO withdrawal.

$Quality$ represents accounting information quality. Earnings management (Jones, 1991) and audit quality (Francis and Michas, 2013) are usually used to measure information quality, while consistency of analysts’ forecasts is also used as a proxy variable. However, as analysts cannot provide assurance on the quality of accounting information, we refer to the first two measurements and design the indicators for information quality as follows: $abs\_DTAC$ follows the Jones (1991) model to calculate the absolute value of abnormal accruals, which indicates poor information quality when its value is large. Following Xu and Luo (2007), $Change$ is a dummy variable which equals 1 for performance deterioration after IPO (i.e. net profit of the first quarter in 2013 is lower than that of the first quarter in 2012) and 0 otherwise to indicate good information quality. $Bigten$ is a dummy variable which
equals 1 for auditing by the Big Ten accounting firms, following Wang et al. (2009), and 0 otherwise.

Focus is the measure of coverage by the media and analysts. Media represents the quantity of news reports, measuring media exposure (Luo, 2012), for each firm from 1 March to 30 May 2013\(^5\) in the Genius Finance database. Analyst measures analyst coverage (Mola et al., 2013). We regress equation (1) separately by high and low Focus and expect a significantly negative coefficient of RepuDown in the high Focus group.

Additionally, following Ball and Brown (1968), we control for other variables that affect our explained variables, including Size, Lev, ROA, Beta,\(^6\) and Industry.\(^7\)

### 3.3 Descriptive Statistics

Table 3 provides descriptive statistics for our main variables of sponsor reputation impairment. In Panel A, the mean of $S_{giveup1c}$ shows that the average number of withdrawing clients for all 74 involved sponsors is 3, while some have none and some have 15 clients withdrawing IPO applications. The mean of $S_{giveup1d}$ indicates that 61.2% of the listed firms are related firms\(^8\) (i.e. have the same sponsors as the withdrawing firms). The average of $R_{giveup1c}$ means that the withdrawal rate is 11.8% for this event, but for some sponsored IPO firms, the withdrawal rate reaches as high as 57.1%. The mean value of $R_{giveup1d}$ indicates that sponsored withdrawing firms account for 2.21% of total withdrawals on average, while the percentage reaches as high as 9.04% for some sponsors.

Panel B summarises the statistics of the other variables. For information quality, $Change1$ indicates that 44.4% of all the listed firms experience post-IPO performance deterioration, and the deterioration is greater in related firms than in unrelated firms. The Bigten statistics show that 56.6% of our sample firms are audited by the Big Ten accounting firms, in which the fraction of related firms is significantly higher than that of unrelated firms but there is no obvious difference in the level of earnings management. For investor attention, the average analyst coverage is 44 firms, with a minimum of 1 and a maximum of 478, and the coverage of related firms is higher than that of unrelated firms. Meanwhile, the average quantity of news reports for all listed firms is 56 pieces, with a maximum of 1,348 pieces, indicating that the degree of attention paid to sample firms varies greatly, but there is no significant difference in the number of news reports between the compared groups. Furthermore, the average Beta is 1.185, the average ROA is 4%, and the average leverage is

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\(^5\) We do not use longer pre- and post-event window periods due to the timeliness of media reporting of hot issues and because reports over a long period may be irrelevant to the IPO withdrawal.

\(^6\) We calculate the coefficients of daily return for single stocks and daily return for the market, backtracking one year starting from 26 March 2013.

\(^7\) We adopt 20 dummy industry variables according to the two-digit CSRC industry classification code, in which we further subdivide the manufacturing industry by the four-digit code.

\(^8\) This percentage is higher than that in Table 1 because we have deleted some samples with missing financial data.
42.5%, indicating that for the related firms, size and leverage are significantly lower while risk and return are significantly higher.

### Table 3  Descriptive Statistics

| VARIABLE       | N  | mean | p25 | p50 | p75 | Sd  | min | max | T-value |
|----------------|----|------|-----|-----|-----|-----|-----|-----|---------|
| Sgiveup1c       | 2161| 3.668| 0   | 2   | 6   | 4.479| 0   | 15  |         |
| Sgiveup1d       | 2161| 0.612| 0   | 1   | 1   | 0.487| 0   | 1   |         |
| Rgiveup1c       | 2161| 0.118| 0   | 0.143| 0.188| 0.117| 0   | 0.571|         |
| Rgiveup1d       | 2161| 0.0221|0 | 0.0120| 0.0361| 0.0270| 0   | 0.0904|         |
| Rank1c          | 2161| 4.442| 1   | 3   | 7   | 3.963| 1   | 13  |         |

### Panel B

| VARIABLE       | N  | mean | p25 | p50 | p75 | Sd  | min | max | T-value |
|----------------|----|------|-----|-----|-----|-----|-----|-----|---------|
| Size           | 2161| 21.83| 20.91| 21.64| 22.51| 1.297| 15.73| 28.41| 22.14| 21.64 | 0.493***|
| Lev12          | 2161| 0.425| 0.230| 0.417| 0.604| 0.236| 0.0110| 1.897| 0.509 | 0.372 | 0.137***|
| ROA12          | 2161| 0.0402|0.0145| 0.0376| 0.0670| 0.0632|-1.292| 0.695| 0.0310| 0.0460 | -0.016***|
| Beta           | 2161| 1.185| 1.037| 1.188| 1.351| 0.248| 0.378| 2.638| 1.173 | 1.193 | -0.020*|
| abs_DTAC       | 2032| 1.744| 0.931| 1.507| 2.247| 3.082| 0.000926| 128.2| 1.714| 1.764 | -0.0510|
| change1        | 2161| 0.444| 0   | 0   | 1   | 0.497| 0   | 1   | 0.419 | 0.460 | -0.041*|
| Bigten         | 2161| 0.566| 0   | 0   | 1   | 0.496| 0   | 1   | 0.539 | 0.584 | -0.044**|
| Analyst        | 2161| 44.66| 3   | 19  | 57  | 65.04| 1   | 478  | 34.65 | 51.01 | -16.358***|
| Media3         | 2161| 56.83| 21  | 37  | 65  | 74.39| 1   | 1348| 57.69 | 56.29 | 1.396|

### 3.4 CAR Analysis Pre- vs. Post-IPO Withdrawal

In order to observe the short-term market reaction around the IPO withdrawal announcement, we divide the sample firms into two groups, related and unrelated. A run chart for CAR value is generated by calculating the CAR for each group from event day -5 to event day 5, as shown in Figure 1. We can see that the CAR values of both groups increase without obvious difference between the two during the window period [-5, -2]. From day -2, the CAR values go down and the CAR of related firms goes below zero. During the window period [0, 5], the CAR of the unrelated group gets back to the original level, while the CAR of the related group is still negative and even declines in the window period [2, 5] to a level which is far lower than its prior level.

For a more clear observation on contagion, we present the average abnormal return (AR) on every single trading day and the average CAR of each event window period for the related and unrelated groups separately and also conduct difference tests, as shown in Table 4. The results show that the average AR on the event day is negative and that the average AR of related firms is lower than that of unrelated firms. The average CARs of related and unrelated firms during the period [-5, -2] are both positive, and there is no significant
difference between the two groups. From event day -1, the average CAR of unrelated firms is still positive; however, the average CAR of related firms becomes negative and significantly different from the former, which indicates the negative effect of IPO withdrawal on related firms and initially verifies the contagion effect.

**Figure 1  Cumulative Abnormal Return from Event Day -5 to Day 5**

![Cumulative Abnormal Return from Event Day -5 to Day 5](image)

**Table 4  Statistics for ARs and CARs**

| Day | AR- Unrelated | AR- Related | Diff | Windows | CAR - Unrelated | CAR - Related | Diff |
|-----|---------------|-------------|------|---------|-----------------|---------------|------|
| -5  | 0.000         | 0.001       | 0.000| car(-5,-5)| 0.000           | 0.001         | 0.000|
| -4  | 0.001         | 0.002       | -0.001| car(-5,-4)| 0.001           | 0.002         | -0.001|
| -3  | 0.002         | -0.001      | 0.002**| car(-5,-3)| 0.003           | 0.002         | 0.001|
| -2  | 0.004         | 0.005       | -0.001| car(-5,-2)| 0.007           | 0.007         | 0.000|
| -1  | -0.002        | -0.009      | 0.007***| car(-5,-1)| 0.005           | -0.003        | 0.007***|
| 0   | -0.006        | -0.008      | 0.002**| car(-5,0)| -0.001          | -0.010        | 0.010***|
| 1   | 0.004         | 0.007       | -0.003**| car(-5,1)| 0.003           | -0.004        | 0.007**|
| 2   | 0.002         | 0.002       | 0.000 | car(-5,2)| 0.005           | -0.002        | 0.007***|
| 3   | -0.001        | -0.004      | 0.003***| car(-5,3)| 0.004           | -0.007        | 0.010***|
| 4   | 0.000         | -0.001      | 0.001 | car(-5,4)| 0.004           | -0.007        | 0.011***|
| 5   | -0.002        | -0.001      | -0.001| car(-5,5)| 0.002           | -0.009        | 0.010***|
IV. Empirical Results

4.1 IPO Withdrawal Contagion Analysis

On the basis of Table 4 and Figure 1, we use the CAR of event window period [-3, 3] for our main regression. Table 5 presents the IPO withdrawal contagion results, which show that the coefficients of the five proxy variables of sponsor reputation impairment are all negative. The results indicate that the market reaction to related firms is more negative than the market reaction to unrelated firms, suggesting that the contagion effect of related firms is stronger than that of unrelated firms. Moreover, the contagion effect of related firms is strengthened as sponsor reputation impairment increases. Overall, the results provide evidence to support H1.

Table 5 Analysis for Contagion Effect of IPO Withdrawal Using CAR [-3, 3]

| VARIABLE   | (1)   | (2)   | (3)   | (4)   | (5)   |
|------------|-------|-------|-------|-------|-------|
|            | Sgiveup1c | Sgiveup1d | Rgiveup1c | Rgiveup1d | Rgiveup1d |
| RepuDown   | -0.001*  | -0.008*** | -0.019*  | -0.092*  | -0.001** |
|            | (-1.929) | (-2.936) | (-1.687) | (-1.929) | (-2.196) |
| Size       | 0.004*** | 0.004*** | 0.004*** | 0.004*** | 0.004*** |
|            | (3.527)  | (3.473)  | (3.482)  | (3.527)  | (3.513)  |
| Lev12      | -0.003   | -0.004   | -0.003   | -0.003   | -0.003   |
|            | (-0.362) | (-0.606) | (-0.385) | (-0.362) | (-0.402) |
| ROA12      | -0.046** | -0.045** | -0.047** | -0.046** | -0.046** |
|            | (-2.067) | (-2.046) | (-2.110) | (-2.067) | (-2.053) |
| Beta       | 0.032*** | 0.032*** | 0.032*** | 0.032*** | 0.032*** |
|            | (5.897)  | (5.904)  | (5.897)  | (5.897)  | (5.901)  |
| Industry   | Controlled | Controlled | Controlled | Controlled | Controlled |
| Constant   | -0.109*** | -0.104*** | -0.107*** | -0.109*** | -0.108*** |
|            | (-4.088) | (-3.864) | (-3.996) | (-4.088) | (-4.023) |
| Observations | 2,161   | 2,161   | 2,161   | 2,161   | 2,161   |
| R-squared  | 0.064   | 0.066   | 0.064   | 0.064   | 0.065   |
| F          | 5.851   | 6.060   | 5.814   | 5.851   | 5.898   |

Table 6 reports the robustness test during other asymmetric event window periods and only shows the coefficients and T-value of RepuDown. It is shown that the coefficients are all negative and that most of them are statistically significant.

Table 7 presents the robustness test based on trading volume. We only report the regression result for the window period [-3, 3]. Reaction research on trading volume is an approach to testing information content (Beaver, 1968) in which the calculation is similar to that of CAR value. We conduct a regression for trading volume in the market using each stock’s trading volume in order to estimate the coefficient, which is further used to estimate
the normal trading volume. The difference between the normal and the estimated trading volume is defined as abnormal trading volume. The regression results show that the coefficients are all negative, and three of them are statistically significant, which further supports the contagion effect.

Table 6  Analysis for Contagion Effect of IPO Withdrawal Using Other Window Periods

| VARIABLE | Sgiveup1c | Sgiveup1d | Rgiveup1c | Rgiveup1d | Rank1c |
|----------|----------|----------|----------|----------|--------|
| Window [-5, 5] | -0.000 | -0.006* | -0.010 | -0.049 | -0.000 |
| | (-0.905) | (-1.841) | (-0.804) | (-0.905) | (-1.253) |
| Window [-4, 4] | -0.001* | -0.008*** | -0.020* | -0.096* | -0.001** |
| | (-1.899) | (-2.673) | (-1.647) | (-1.899) | (-2.208) |
| Window [-2, 2] | -0.000 | -0.005** | -0.012 | -0.050 | -0.000 |
| | (-1.222) | (-2.051) | (-1.298) | (-1.222) | (-1.436) |
| Window [-1, 1] | -0.000 | -0.005** | -0.017** | -0.028 | -0.000 |
| | (-0.808) | (-2.350) | (-2.155) | (-0.808) | (-0.952) |

Table 7  Analysis for Contagion Effect of IPO Withdrawal Using Trading Volume within Window Periods [-3, 3]

| VARIABLE | Sgiveup1c | Sgiveup1d | Rgiveup1c | Rgiveup1d | Rank1c |
|----------|----------|----------|----------|----------|--------|
| RepuDown | -0.634 | -12.512** | -47.005* | -105.186 | -0.745 |
| | (-0.988) | (-2.077) | (-1.887) | (-0.988) | (-1.026) |
| Size | 7.181*** | 7.037*** | 6.947*** | 7.181*** | 7.173*** |
| | (2.763) | (2.709) | (2.670) | (2.763) | (2.760) |
| Lev | 39.104** | 35.737** | 36.765** | 39.104** | 38.958** |
| | (2.486) | (2.260) | (2.331) | (2.486) | (2.475) |
| ROA | -82.551* | -80.802 | -82.108* | -82.551* | -82.423* |
| | (-1.655) | (-1.622) | (-1.648) | (-1.655) | (-1.652) |
| Beta | -84.984*** | -84.866*** | -84.566*** | -84.984*** | -84.997*** |
| | (-6.966) | (-6.963) | (-6.935) | (-6.966) | (-6.967) |
| Industry | Controlled | Controlled | Controlled | Controlled | Controlled |
| Constant | -51.596 | -40.922 | -41.529 | -51.596 | -50.319 |
| | (-0.862) | (-0.681) | (-0.690) | (-0.862) | (-0.839) |
| Observations | 2,161 | 2,161 | 2,161 | 2,161 | 2,161 |
| R-squared | 0.102 | 0.104 | 0.104 | 0.102 | 0.102 |
| F | 9.749 | 9.898 | 9.864 | 9.749 | 9.753 |

4.2 Information Quality and IPO Withdrawal Contagion

On the one hand, high-quality accounting information may mitigate the contagion...
effect. When the information quality is good, investors may not change their expectation of the related firms in the case of IPO withdrawal, leading to no or less contagion effect on the high-quality related firms due to investors’ trust. On the other hand, IPO withdrawal may be incremental information to the investors of related firms with high-quality information and may strengthen the contagion effect by shaking investors’ expectations. Thus, we divide all the firms into subsamples by information quality to test the effect.

First, we divide our sample by level of earnings management into high and low groups. A low level of earnings management indicates a high quality of accounting information (Dechow et al., 1995). We can see from the regression results in Table 8 that the coefficients of RepuDown are mostly significantly negative in the low group, while the coefficients in the high group are all insignificantly negative, indicating that the contagion effect of IPO withdrawal exists primarily in firms with high information quality. This finding provides evidence to support H2 by explaining that the negative shock to firms with high information quality induces unexpected information and a negative market reaction.

Table 8  Earnings Management and Contagion Effect of IPO Withdrawal Using CAR [-3, 3]

| VARIABLE | Sgiveup1c  | Sgiveup1d  | Rgiveup1c  | Rgiveup1d  | Rank1c  |
|----------|-----------|-----------|-----------|-----------|---------|
|          | Low       | High      | Low       | High      | Low     | High    | Low     | High     | Low     | High    |
| RepuDown | -0.000**  | -0.000    | -0.002    | -0.001    | -0.006  | -0.005  | -0.054** | -0.006  | -0.000** | -0.000 |
|          | (-2.340)  | (-0.270)  | (-1.680)  | (-0.741)  | (-1.185) | (-0.927) | (-2.340) | (-0.270) | (-2.469) | (-0.259) |
| Size     | 0.002***  | 0.001***  | 0.002***  | 0.001***  | 0.002** | 0.001** | 0.002*** | 0.001*** | 0.002***  | 0.001*** |
|          | (3.190)   | (2.635)   | (3.275)   | (2.592)   | (3.245)  | (2.572)  | (3.190)  | (2.635)  | (3.192)  | (2.634) |
| Lev      | 0.003     | -0.002    | 0.003     | -0.002    | 0.003   | -0.002  | 0.003    | -0.002   | 0.003     | -0.002  |
|          | (0.711)   | (-0.601)  | (0.675)   | (-0.677)  | (0.774)  | (-0.691) | (0.711)  | (-0.601) | (0.683)   | (-0.601) |
| ROA      | 0.000     | -0.026*** | -0.001    | -0.026*** | -0.001  | -0.026*** | 0.000    | -0.026*** | -0.000   | -0.026*** |
|          | (0.008)   | (-3.055)  | (-0.097)  | (-3.010)  | (-0.045) | (-3.025) | (0.008)  | (-3.055) | (-0.001)  | (-3.055) |
| Beta     | 0.005*    | 0.004     | 0.005*    | 0.004     | 0.005*  | 0.004   | 0.005*   | 0.004    | 0.005*    | 0.004  |
|          | (1.676)   | (1.458)   | (1.668)   | (1.474)   | (1.715)  | (1.484) | (1.676)  | (1.458)  | (1.673)   | (1.456) |
| Industry | Controlled | Controlled | Controlled | Controlled | Controlled | Controlled | Controlled | Controlled |
| Constant | -0.049***  | -0.050***  | -0.049***  | -0.049***  | -0.050*** | -0.048*** | -0.049*** | -0.050*** | -0.048***  | -0.050*** |
|          | (-3.306)  | (-3.989)  | (-3.319)  | (-3.887)  | (-3.362) | (-3.868) | (-3.306) | (-3.989) | (-3.262)  | (-3.976) |
| Observations | 1,016  | 1,016  | 1,016  | 1,016  | 1,016  | 1,016  | 1,016  | 1,016  | 1,016  | 1,016  |
| R-squared | 0.895  | 0.906  | 0.895  | 0.906  | 0.895  | 0.907  | 0.895  | 0.906  | 0.895  | 0.906  |
| F        | 325.5  | 368.5  | 324.5  | 368.7  | 324.0  | 368.8  | 325.5  | 368.5  | 325.7  | 368.5  |

Then, we further divide our sample by whether the firm experiences post-IPO performance deterioration or not. The criticisms of sponsors from the market are mainly due to the fact that the performance of IPO firms often changes adversely after their listings.
Thus, we use whether performance deteriorates or not as the proxy variable of information quality to test the contagion channel of accounting information quality. The results in Table 9 show that the coefficient is significantly negative only in the no-change group.

### Table 9  Performance Deterioration and Contagion Effect of IPO Withdrawal Using CAR [-3, 3]

| VARIABLE | Sgiveup1c | Sgiveup1d | Rgiveup1c | Rgiveup1d | Rank1c |
|----------|-----------|-----------|-----------|-----------|--------|
| Change   | No change | Change    | No change | Change    | No change | Change    | No change | Change    | No change |
| RepuDown | -0.000    | -0.000*   | -0.001    | -0.002*   | -0.003    | -0.007    | -0.022    | -0.039*   | -0.000    | -0.000*   |
|          | (-0.981)  | (-1.764)  | (-0.574)  | (-1.883)  | (-0.499)  | (-1.416)  | (-0.981)  | (-1.764)  | (-1.042)  | (-1.902)  |
| Size     | 0.001**   | 0.002***  | 0.001**   | 0.002***  | 0.001**   | 0.002***  | 0.001**   | 0.002***  | 0.001**   | 0.002***  |
|          | (2.087)   | (3.384)   | (2.093)   | (3.376)   | (2.084)   | (3.355)   | (2.087)   | (3.384)   | (2.087)   | (3.373)   |
| Lev      | -0.001    | 0.002     | -0.001    | 0.002     | -0.001    | 0.002     | -0.001    | 0.002     | -0.001    | 0.002     |
|          | (-0.366)  | (0.636)   | (-0.353)  | (0.565)   | (-0.320)  | (0.625)   | (-0.366)  | (0.636)   | (-0.381)  | (0.616)   |
| ROA      | -0.019    | -0.015    | -0.019    | -0.014    | -0.019    | -0.015    | -0.019    | -0.015    | -0.019    | -0.014    |
|          | (-1.410)  | (-1.588)  | (-1.440)  | (-1.582)  | (-1.442)  | (-1.627)  | (-1.410)  | (-1.588)  | (-1.414)  | (-1.573)  |
| Beta     | 0.002     | 0.007***  | 0.002     | 0.007***  | 0.002     | 0.007***  | 0.002     | 0.007***  | 0.002     | 0.007***  |
|          | (0.697)   | (2.789)   | (0.681)   | (2.777)   | (0.682)   | (2.786)   | (0.697)   | (2.789)   | (0.695)   | (2.795)   |

### Table 10  Auditing Firm and Contagion Effect of IPO Withdrawal Using CAR [-3, 3]

| VARIABLE | Sgiveup1c | Sgiveup1d | Rgiveup1c | Rgiveup1d | Rank1c |
|----------|-----------|-----------|-----------|-----------|--------|
| Big 10   | Non-Big 10| Big 10    | Non-Big 10| Big 10    | Non-Big 10 | Big 10    | Non-Big 10 | Big 10    | Non-Big 10 |
| RepuDown | -0.000**  | -0.000    | -0.002*   | -0.001    | -0.009*   | -0.002    | -0.045**  | -0.010    | -0.000**  | -0.000    |
|          | (-2.196)  | (-0.386)  | (-1.768)  | (-0.722)  | (-1.700)  | (-0.322)  | (-2.196)  | (-0.386)  | (-2.294)  | (-0.463)  |
| Size     | 0.002***  | 0.002***  | 0.002***  | 0.001     | 0.002***  | 0.001     | 0.002***  | 0.001     | 0.002***  | 0.001     |
|          | (3.288)   | (1.401)   | (3.320)   | (1.361)   | (3.226)   | (1.409)   | (3.288)   | (1.401)   | (3.280)   | (1.396)   |
| Lev      | 0.004     | -0.002    | 0.003     | -0.003    | 0.004     | -0.002    | 0.004     | -0.002    | 0.004     | -0.002    |
|          | (1.114)   | (-0.662)  | (1.062)   | (-0.732)  | (1.104)   | (-0.662)  | (1.114)   | (-0.662)  | (1.096)   | (-0.673)  |
| ROA      | -0.018*   | -0.016    | -0.018*   | -0.016    | -0.018*   | -0.016    | -0.018*   | -0.016    | -0.018*   | -0.016    |
|          | (-1.688)  | (-1.562)  | (-1.696)  | (-1.553)  | (-1.701)  | (-1.582)  | (-1.688)  | (-1.562)  | (-1.688)  | (-1.556)  |
| Beta     | 0.005**   | 0.004     | 0.005**   | 0.004     | 0.005**   | 0.004     | 0.005**   | 0.004     | 0.005**   | 0.004     |
|          | (2.185)   | (1.375)   | (2.177)   | (1.375)   | (2.199)   | (1.366)   | (2.185)   | (1.375)   | (2.183)   | (1.377)   |
| Constant | -0.057*** | -0.024    | -0.057*** | -0.023    | -0.056*** | -0.024    | -0.057*** | -0.024    | -0.057*** | -0.023    |
|          | (-4.861)  | (-1.635)  | (-4.807)  | (-1.550)  | (-4.742)  | (-1.636)  | (-4.861)  | (-1.635)  | (-4.805)  | (-1.618)  |

### Industry Control

| Observations | 1,224    | 937     | 1,224    | 937     | 1,224    | 937     | 1,224    | 937     | 1,224    | 937     |
| R-squared    | 0.895    | 0.905   | 0.895    | 0.905   | 0.895    | 0.905   | 0.895    | 0.905   | 0.895    | 0.905   |
| F            | 379.1    | 320.6   | 378.5    | 320.7   | 378.4    | 320.5   | 379.1    | 320.6   | 379.2    | 320.6   |
Finally, we divide our sample firms by whether they are audited by the Big Ten accounting firms or not. In the existing auditing literature, auditing by the Big Four or Big Ten is frequently used as a proxy of auditing quality or accounting quality, the supposition being that the quality of the auditing or accounting provided by larger firms is higher. The results in Table 10 show that the coefficients in the Big 10 group are significantly negative while those in the non-Big 10 group are insignificantly negative. Therefore, firms audited by the Big Ten are affected by the contagion effect, which supports H2.

4.3 Investor Attention and IPO Withdrawal Contagion

When a listed firm gets more attention, investors are more likely to become familiar with its sponsor and be able to recognise the related firms in the event of IPO withdrawal. To test the hypothesis of a stronger contagion effect on firms that get more attention, we measure Focus by analyst coverage and media exposure.

First, we use the median of analyst coverage to divide the sample firms into two groups. Table 11 shows that the coefficients of RepuDown are significantly negative for firms which are followed by more analysts but not significant in the other group. These results are consistent with H3.

### Table 11  Analyst Coverage and Contagion Effect of IPO Withdrawal Using CAR [-3, 3]

| VARIABLE | Sgiveup1c | Sgiveup1d | Rgiveup1c | Rgiveup1d | Rank1c |
|----------|-----------|-----------|-----------|-----------|--------|
|          | Less      | More      | Less      | More      | Less   | More    | Less   | More   | Less   | More   |
| RepuDown | -0.000    | -0.000*   | -0.001    | -0.002*   | -0.006  | -0.006  | -0.027  | -0.038* | -0.000  | -0.000* |
|          | (-1.139)  | (-1.788)  | (-0.871)  | (-1.799)  | (-1.082) | (-1.085) | (-1.139) | (-1.788) | (-1.261) | (-1.813) |
| Size     | 0.001**   | 0.001**   | 0.001**   | 0.001**   | 0.001** | 0.001** | 0.001** | 0.001** | 0.001** | 0.001** |
|          | (2.519)   | (2.220)   | (2.519)   | (2.157)   | (2.522)  | (2.220)  | (2.519)  | (2.220)  | (2.515)  | (2.201) |
| Lev      | -0.003    | 0.002     | -0.003    | 0.002     | -0.003  | 0.002   | -0.003  | 0.002   | -0.003  | 0.002   |
|          | (-0.900)  | (0.560)   | (-0.875)  | (0.404)   | (-0.892) | (0.531)  | (-0.900) | (0.560)  | (-0.906) | (0.543) |
| ROA      | -0.013    | -0.025*   | -0.013    | -0.026*   | -0.013  | -0.025* | -0.013  | -0.025* | -0.013  | -0.025* |
|          | (-1.429)  | (-1.881)  | (-1.443)  | (-1.960)  | (-1.459) | (-1.897) | (-1.429) | (-1.881) | (-1.418) | (-1.890) |
| Beta     | 0.000     | 0.007***  | 0.000     | 0.007***  | 0.000   | 0.007*** | 0.000   | 0.007*** | 0.000   | 0.007*** |
|          | (0.131)   | (2.854)   | (0.125)   | (2.841)   | (0.143) | (2.849)  | (0.131) | (2.854)  | (0.138) | (2.847) |
| Industry | Controlled | Controlled | Controlled | Controlled | Controlled | Controlled | Controlled | Controlled |
| Constant | -0.036*** | -0.050*** | -0.036*** | -0.047*** | -0.035*** | -0.050*** | -0.036*** | -0.050*** | -0.035*** | -0.049*** |
|          | (-2.763)  | (-3.417)  | (-2.747)  | (-3.211)  | (-2.751) | (-3.368) | (-2.763) | (-3.417) | (-2.735) | (-3.357) |
| Observations | 1,084 | 1,077 | 1,084 | 1,077 | 1,084 | 1,077 | 1,084 | 1,077 | 1,084 | 1,077 |
| R-squared | 0.900 | 0.900 | 0.900 | 0.900 | 0.899 | 0.900 | 0.900 | 0.900 | 0.900 | 0.900 |
| F        | 352.6     | 347.8     | 352.4     | 347.8     | 352.6   | 347.0   | 352.6   | 347.8   | 352.7   | 347.8   |

Second, we also divide the samples into two groups by the median of the number of media reports. Table 12 shows that the coefficients in the group with more media reports are
significantly negative compared to the insignificant coefficients in the group with fewer media reports, which further confirms H3.

### Table 12  Media Exposure and Contagion Effect of IPO Withdrawal Using CAR [-3, 3]

| VARIABLE | Sgiveup1c | Sgiveup1d | Rgiveup1c | Rgiveup1d | Rank1c |
|----------|----------|----------|----------|----------|--------|
|          | More     | Less     | More     | Less     | More   | Less   | More   | Less   | More   | Less   |
| RepuDown | -0.000** | -0.000   | -0.002   | -0.002   | -0.007 | -0.007 | -0.045** | -0.020 | -0.000** | -0.000 |
|          | (-2.429) | (-0.773) | (-1.405) | (-1.387) | (-1.629) | (-1.115) | (-2.429) | (-0.773) | (-2.405) | (-0.930) |
| Size     | 0.001*   | 0.002*** | 0.001*   | 0.002*** | 0.001*  | 0.002*** | 0.001*   | 0.002*** | 0.001*   | 0.002*** |
|          | (1.936)  | (2.965)  | (1.849)  | (2.931)  | (1.864) | (2.906)  | (1.936)  | (2.965)  | (1.928)  | (2.949)  |
| Lev      | 0.001    | -0.002   | 0.001    | -0.003   | 0.001   | -0.002   | 0.001    | -0.002   | 0.001    | -0.002   |
|          | (0.392)  | (-0.538) | (0.415)  | (-0.657) | (0.358) | (-0.567) | (0.392)  | (-0.538) | (0.379)  | (-0.559) |
| ROA      | -0.036***| -0.010   | -0.037***| -0.010   | -0.037***| -0.010   | -0.036***| -0.010   | -0.036***| -0.010   |
|          | (-3.365) | (-0.937) | (-3.459) | (-0.949) | (-3.514) | (-0.929) | (-3.365) | (-0.937) | (-3.369) | (-0.935) |
| Beta     | 0.004    | 0.007**  | 0.004    | 0.007**  | 0.004   | 0.007**  | 0.004    | 0.007**  | 0.004    | 0.007**  |
|          | (1.619)  | (2.375)  | (1.575)  | (2.389)  | (1.575) | (2.409)  | (1.619)  | (2.375)  | (1.606)  | (2.379)  |
| Industry | Controlled | Controlled | Controlled | Controlled | Controlled | Controlled | Controlled | Controlled | Controlled | Controlled |
| Constant | -0.037***| -0.049***| -0.036***| -0.047***| -0.036***| -0.047***| -0.037***| -0.049***| -0.037***| -0.048***|
|          | (-3.022) | (-3.505) | (-2.910) | (-3.364) | (-2.927) | (-3.389) | (-3.022) | (-3.505) | (-2.978) | (-3.461) |
| Observations | 1,089 | 1,072 | 1,089 | 1,072 | 1,089 | 1,072 | 1,089 | 1,072 | 1,089 | 1,072 |
| R-squared | 0.898 | 0.902 | 0.898 | 0.902 | 0.898 | 0.902 | 0.898 | 0.902 | 0.898 | 0.902 |
| F        | 346.6 | 355.8 | 345.2 | 356.3 | 345.5 | 356.0 | 346.6 | 355.8 | 346.6 | 355.9 |

### 4.4 Robustness Tests

#### 4.4.1 Previous market reaction and the contagion effect

First, we apply the test by further distinguishing between positive and negative attention given by investors that affect the IPO withdrawal contagion. The attention investors give to firms may be positive or negative, which may influence market reaction to the firms. Thus, following Solomon et al. (2014), we measure the direction of investor attention to a firm by the sign of the CAR value for window period [-35, -6] (i.e. CAR_pre).\(^9\)

We define attention to a firm as positive when the sign of CAR_pre is positive and as negative otherwise for the reason that the attitude of media or analyst reports will be reflected in the stock prices. Compared to text analysis, this approach is more objective because we refer to market participants’ rather than researchers’ understanding of market or analyst reports. Moreover, it reflects the market’s overall understanding or evaluation of a firm rather than any single piece of news or report.

In Table 13, we find that IPO withdrawal contagion affects firms with a better market

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\(^9\) The estimation period is [-161, -11].
reaction, while those with a worse market reaction are not affected, which is consistent with the influence of accounting information quality on the contagion effect. IPO withdrawal events shock investors who had high expectations of firms with previous good performance and shake their trust and confidence in the firms, leading to the contagion effect.

Table 13  Previous Market Reaction and Contagion Effect of IPO Withdrawal Using CAR [-3, 3]

| VARIABLE  | Sgiveup1c | Sgiveup1d | Rgiveup1c | Rgiveup1d | Rank1c |
|-----------|-----------|-----------|-----------|-----------|--------|
| RepuDown  | -0.001*   | 0.000     | -0.007**  | -0.004    | -0.016 | -0.005 | -0.094* | 0.013 | -0.001* | -0.000  |
|           | (-1.701)  | (0.140)   | (-2.203)  | (-0.842)  | (-1.206)| (-0.253)| (-1.701)| (0.140)| (-1.899)| (-0.046) |
| Size      | 0.002     | 0.004**   | 0.002     | 0.004**   | 0.002  | 0.004**| 0.002  | 0.004**| 0.002  | 0.004**  |
|           | (1.169)   | (2.163)   | (1.127)   | (2.113)   | (1.141)| (2.117)| (1.169)| (2.163)| (1.164)| (2.150)  |
| Lev12     | 0.002     | -0.031**  | 0.000     | -0.031**  | 0.002  | -0.031**| 0.002  | -0.031**| 0.002  | -0.031**  |
|           | (0.248)   | (-2.191)  | (0.057)   | (-2.243)  | (0.241)| (-2.206)| (0.248)| (-2.191)| (0.211)| (-2.202) |
| ROA12     | -0.064**  | -0.007    | -0.063**  | -0.008    | -0.066**| -0.007 | -0.064**| -0.007| -0.064**| -0.007   |
|           | (-2.502)  | (-0.157)  | (-2.472)  | (-0.174)  | (-2.571)| (-0.155)| (-2.502)| (-0.157)| (-2.486)| (-0.160) |
| Beta      | 0.029***  | 0.038***  | 0.030***  | 0.038***  | 0.029***| 0.038***| 0.029***| 0.038***| 0.029***| 0.038***  |
|           | (4.262)   | (4.466)   | (4.289)   | (4.424)   | (4.249)| (4.452)| (4.262)| (4.466)| (4.269)| (4.465)   |
| Constant  | -0.058    | -0.105**  | -0.053    | -0.099**  | -0.057 | -0.102**| -0.058 | -0.105**| -0.056 | -0.104**  |
|           | (-1.592)  | (-2.604)  | (-1.462)  | (-2.457)  | (-1.556)| (-2.510)| (-1.592)| (-2.604)| (-1.552)| (-2.575) |
| Observations | 1,640 | 521 | 1,640 | 521 | 1,640 | 521 | 1,640 | 521 | 1,640 | 521 |
| Industry  | Controlled | Controlled | Controlled | Controlled | Controlled | Controlled | Controlled | Controlled | Controlled | Controlled |
| Year      | Controlled | Controlled | Controlled | Controlled | Controlled | Controlled | Controlled | Controlled | Controlled | Controlled |
| F         | 2.729     | 2.672     | 2.811     | 2.703     | 2.669 | 2.674 | 2.729 | 2.672 | 2.759 | 2.671 |

4.4.2 Alternative Explanation

Accounting firms are also involved in the special inspection conducted by the CSRC, and so they may be an alternative contagion channel. Thus, we subsequently include the following control variables: whether the same auditor is hired, information quality (abs_DTAC), market share of the sponsor (RNpubfirm), auditor reputation (Bigten), and politically connected CEO (CEO_gov_dum), which are possible factors affecting market reaction. RNpubfirm is calculated as the ratio of listed clients of a sponsor to total listed firms, and CEO_gov_dum is a dummy variable which equals 1 when the CEO in 2013 has political connections and 0 otherwise. The results reported in Table 14 suggest that our main results are robust.
Table 14  Contagion Effect of IPO Withdrawal Using CAR [-3, 3] – other control variables

Panel A Contagion effect of IPO withdrawal

| VARIABLE | (1)       | (2)       | (3)       | (4)       | (5)       |
|----------|-----------|-----------|-----------|-----------|-----------|
|          | Sgiveup1c | Sgiveup1d | Rgiveup1c | Rgiveup1d | Rank1c    |
| RepuDown | -0.001**  | -0.009*** | -0.015    | -0.154**  | -0.001**  |
|          | (-2.050)  | (-2.881)  | (-1.231)  | (-2.050)  | (-2.390)  |
| Size     | 0.004***  | 0.004***  | 0.004***  | 0.004***  | 0.004***  |
|          | (2.962)   | (2.918)   | (2.989)   | (2.962)   | (2.936)   |
| Lev12    | 0.006     | 0.006     | 0.005     | 0.006     | 0.006     |
|          | (-0.756)  | (-0.869)  | (-0.747)  | (-0.756)  | (-0.776)  |
| ROA12    | -0.044*   | -0.043*   | -0.045**  | -0.044*   | -0.043*   |
|          | (-1.948)  | (-1.936)  | (-1.996)  | (-1.948)  | (-1.933)  |
| Beta     | 0.033***  | 0.033***  | 0.033***  | 0.033***  | 0.033***  |
|          | (5.880)   | (5.851)   | (5.869)   | (5.880)   | (5.874)   |
| Agiveup1d| -0.005*   | -0.003    | -0.005*   | -0.005*   | -0.004    |
|          | (-1.666)  | (-1.193)  | (-1.666)  | (-1.666)  | (-1.575)  |
| RNpubfirm| 0.130     | 0.093     | 0.012     | 0.130     | 0.151     |
|          | (1.384)   | (1.285)   | (0.182)   | (1.384)   | (1.624)   |
| abs_DTAC | -0.000    | -0.000    | -0.000    | -0.000    | -0.000    |
|          | (-0.062)  | (-0.142)  | (-0.100)  | (-0.062)  | (-0.089)  |
| Bigten   | 0.000     | 0.000     | 0.000     | 0.000     | 0.000     |
|          | (0.098)   | (0.139)   | (0.008)   | (0.098)   | (0.115)   |
| CEO_gov_dum| -0.002 | -0.002 | -0.002 | -0.002 | -0.002 |
|          | (-0.549)  | (-0.512)  | (-0.599)  | (-0.549)  | (-0.524)  |
| Constant | -0.093*** | -0.087*** | -0.091*** | -0.093*** | -0.091*** |
|          | (-3.275)  | (-3.070)  | (-3.208)  | (-3.275)  | (-3.196)  |
| Observations | 2,032 | 2,032 | 2,032 | 2,032 | 2,032 |
| R-squared | 0.069     | 0.071     | 0.068     | 0.069     | 0.070     |
| Industry | Controlled | Controlled | Controlled | Controlled | Controlled |
| Year     | Controlled | Controlled | Controlled | Controlled | Controlled |
| F        | 5.144     | 5.296     | 5.045     | 5.144     | 5.200     |

Panel B Group test – Earnings management

| VARIABLE | Low       | High      | Low       | High      | Low     | High     | Low     | High     |
|----------|-----------|-----------|-----------|-----------|---------|---------|---------|---------|
|          | Sgiveup1c | -0.001    | -0.001    | (-1.269)  | (-1.302)|
|          | Sgiveup1d | -0.009*   | -0.008*   | (-1.898)  | (-1.781) |
|          | Rgiveup1c | -0.001    | -0.024    | (-0.084)  | (-1.390) |
|          | Rgiveup1d | -0.130    | -0.144    | (-1.269)  | (-1.302) |
|          | Rank1c    | -0.001*   | -0.001    | (-1.649)  | (-1.446) |
### Panel C Group test – Performance deterioration

|         | Change | No change | Change | No change | Change | No change | Change | No change | Change | No change |
|---------|--------|-----------|--------|-----------|--------|-----------|--------|-----------|--------|-----------|
| $S_{giveup1c}$ | 0.000  | -0.002*** | 0.002  | -0.016*** | 0.030* | -0.046*** | 0.063  | -0.278*** | 0.000  | -0.002*** |
|          | (0.569) | (-2.726)  | (0.442) | (-3.556)  | (1.720) | (-2.703)  | (0.569) | (-2.726)  | (0.448) | (-3.079)  |

### Panel D Group test – Big Ten

|         | Non-Big |          | Non-Big |          | Non-Big |          | Non-Big |          | Non-Big |          |
|---------|---------|----------|---------|----------|---------|----------|---------|----------|---------|----------|
|         | Big 10  | _10      | Big 10  | _10      | Big 10  | _10      | Big 10  | _10      | Big 10  | _10      |
| $S_{giveup1c}$ | -0.001* | -0.001   | -0.007* | -0.012** | -0.020  | -0.007   | -0.184* | -0.012** | -0.001* | -0.001   |
|          | (-1.860) | (-1.033)  | (-1.692) | (-2.273)  | (-1.182) | (-0.390)  | (-1.860) | (-1.033)  | (-1.867) | (-1.503)  |

### Panel E Group test – Analyst coverage

|         | Less | More | Less | More | Less | More | Less | More | Less | More |
|---------|------|------|------|------|------|------|------|------|------|------|
| $S_{giveup1c}$ | -0.000 | -0.001* | -0.009* | -0.008* | -0.015 | -0.005 | -0.018 | -0.0179* | -0.001 | -0.001* |
|          | (-0.141) | (-1.915)  | (-1.781) | (-1.776)  | (-0.857) | (-0.279)  | (-0.141) | (-1.915)  | (-0.665) | (-1.906)  |

### Panel F Group test – Media exposure

|         | Less | More | Less | More | Less | More | Less | More | Less | More |
|---------|------|------|------|------|------|------|------|------|------|------|
| $S_{giveup1c}$ | -0.000 | -0.002** | -0.006 | -0.015*** | -0.012 | -0.027 | -0.070 | -0.259** | -0.001 | -0.002** |
|          | (-0.778) | (-2.131)  | (-1.404) | (-2.839)  | (-0.824) | (-1.344)  | (-0.778) | (-2.131)  | (-1.144) | (-2.285)  |
### Panel G Group test – Previous performance

|                      | Positive | Negative | Positive | Negative | Positive | Negative | Positive | Negative |
|----------------------|----------|----------|----------|----------|----------|----------|----------|----------|
| Sgiveup1c            | -0.001   | -0.001   | (1.516)  | (0.421)  |
| Sgiveup1d            | -0.009** | -0.006   | (-2.176) | (-1.080) |
| Rgiveup1c            | -0.011   | -0.007   | (-0.739) | (-0.321) |
| Rgiveup1d            | -0.133   | -0.061   | (-1.516) | (-0.421) |
| Rank1c               | -0.001*  | -0.001   |

### 4.4.3 Other robustness tests

To validate our findings, we further conduct an empirical analysis for H2 and H3 using the CAR value during different window periods and find that the results are consistent with those during window period [-3, 3].

We also conduct a regression for related firms only following Gleason et al. (2008) and find that the results are robust, but with a lower significance.

### V. Conclusion

The objective of this study is to examine the contagion effect of IPO withdrawal. We find that IPO withdrawals have a contagion effect, which is more pronounced for related firms when sponsor reputation is impaired more severely, when the related firms have higher accounting information quality, and when they receive more attention from the market. Our findings complement the existing research by suggesting a new contagion channel and confirm the validity of the reform of the IPO process conducted by the CSRC to some extent. The results suggest that the financial check reform and the intense supervision by the CSRC not only deter IPO firms and sponsors but also affect the listed related firms, which indicates the continuous certification function of sponsors before and after IPO periods. IPO firms should select sponsors with a high reputation to avoid the contagion effect, thereby promoting professional competence in sponsors.

The limitations of our study are as follows. The samples of firms that released annual reports on 3 April 2013 are excluded; however, we do not delete samples involved in other events on or around that date. When further exploring the influence of positive/negative news on the contagion effect, we do not differentiate between positive and negative media news by text analysis. Moreover, the conclusion that there is a stronger contagion effect for firms with higher information quality is consistent with prior studies on contagion but may be in conflict with the governance theory of accounting information quality. This should inspire further research on other governance channels mitigating the credibility crisis.
regarding accounting information. Finally, following the existing literature on market reaction, we do not control for corporate governance variables; however, some may argue that the contagion effect can be mitigated by good corporate governance, and this can be studied further.

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未预期信息、公司关注度与 IPO 企业撤单的传染效应*

王雄元 何捷1

摘要

本文主要研究 2013 年 4 月 3 日证监会 IPO 企业撤单情况公告的传染效应及其影响因素。结果表明：（1）已上市公司的保荐机构涉及 IPO 撤单或涉及程度较高时，市场反应显著为负，说明 IPO 撤单事件具有传染效应，即当某 IPO 企业撤单时，出于对信息质量的担忧，市场会给予那些与之具有相同保荐机构的关联已上市公司更强的负面反应，而且这种传染效应与保荐机构声誉受损情况密切关联；（2）IPO 撤单的传染效应主要发生于会计信息质量较高的企业，说明撤单事件对于信息质量高的企业属于增量信息，更可能引起投资者反应；（3）IPO 撤单的传染效应主要发生于关注度较高的企业，说明公司关注度能吸引市场对撤单事件以及问题公司的有限注意，进而引起撤单事件的传染效应。本文研究为传染文献提供了新的素材，也检验了证监会 IPO 财务信息专项检查的有效性，对促进 IPO 工作的健康发展具有借鉴价值。

关键词：IPO 企业撤单、传染效应、保荐机构声誉、未预期信息、公司关注度

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一、引言

证券发行保荐制是我国确保IPO企业信息质量的重要制度安排，然而我国IPO企业频频“业绩变脸”引发了市场对保荐机构“荐而不保”的广泛质疑。2012年12月28日证监会《关于做好首次公开发行股票公司2012年度财务报告专项检查工作的通知》规定2013年3月31日前企业自查，3月31日后证监会抽查，问题企业将终止IPO进程而负有责任的中介机构将受到处罚。2013年4月3日证监会公告有166家IPO企业撤单，随后媒体进行了广泛报道，如证券时报网“IPO撤单洪流：单周76家退出”，新浪财经网“IPO财务检查战果分析：民生光大海通最受伤”以及“遭遇保荐门，光大证券如何救赎”等等，保荐机构的声誉受到严重影响。

基于此，本文关注IPO企业撤单是否具有传染效应。已有文献将“传染效应”定义为“当某些公司发生不良事件时，与之有关联的其他公司也会存在类似事件或受到负面影响”(Leitner, 2005; Gleason et al., 2008)，本文IPO企业撤单的传染效应是指“IPO企业发生撤单后，与撤单企业具有相同保荐机构的已上市企业(以下简称“关联企业”)会出现较强的负面市场反应”，这是由于IPO企业撤单可能反应了保荐机构的保荐质量问题，由于存在相同的保荐机构，市场对“关联企业”会计信息质量也会产生担忧进而可能做出更强的负面反应，致使“关联企业”股价在短期事件窗口期内大幅下降。与IPO企业撤单的市场反应研究，以及IPO企业撤单可能传递IPO企业财务信息质量不高或者保荐机构能力不强的信号的研究不同，本文的研究主体并非IPO撤单企业或其背后的保荐机构，而是与IPO撤单企业具有相同保荐机构的上市公司，即“关联企业”。我们以上市公司的保荐机构是否与撤单企业相同为准，将上市公司分为关联企业以及非关联企业，并通过比较它们在撤单事件日前后的超额累计收益率，判断IPO撤单事件是否具有传染效。实证结果显示，关联企业的累计超额收益率显著降低且显著低于非关联企业，从而证实IPO企业撤单确实具有传染效应。

进一步，本文还探讨了保荐机构声誉受损程度、关联企业会计信息质量和公司关注度对IPO撤单事件传染效应的影响。首先，保荐机构是信息质量的重要保障，声誉是这一机制实际发挥作用的核心(Booth and Smith, 1986)，一旦扮演着传染路径角色的声誉受损，它所保荐的上市公司无疑将受到牵连(Carter and Manaster, 1990)。我们用保荐机构涉及的IPO企业撤单数量及比率衡量声誉受损情况，研究发现保荐机构涉及撤单企业数量或比率越高，相应关联企业受到的传染效应越强。其次，关联企业的会计信息质量可能影响其所受传染效的的程度。一方面，关联企业前期的会计信息质量较高时，市场对其信任程度较高，保荐企业涉及撤单可能不会影响市场对这类企业的看法，导致这类企业免受传染效应的影响或者所受影响较小；另一方面，心理反差以及未预期信息是传染效应的重要解释理论(Manz, 2010; Oh, 2013)，保荐机构涉及撤单事件对于会计信息质量较好企业的投资者可能属于增量信息，并冲击到市

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2主板、中小板、创业板分别为11家、49家、106家。3 详见http://stock.stcn.com/2013/0401/10385230.shtml; http://finance.sina.com.cn/stock/newstock/zxdt/20130406/201915059450.shtml; http://www.wumii.com/item/pqJs2sUa。
场对这类企业原有的信任，进而引起市场更强的负面反应。我们以盈余管理程度、业绩是否变脸以及是否十大会计师事务所审计衡量公司信息质量，结果表明，IPO 撤单的传染效应主要发生于信息质量较高的企业，说明保荐机构涉及撤单对于会计信息质量较高企业的投资者提供了增量信息。最后，企业所受关注度会影响企业所受传染效应影响的大小。正如 Baber and Odean（2008）指出，投资者在做出买出和卖出决策前，首先得关注到企业，企业所受关注度会影响投资者决策。具体到 IPO 撤单事件，企业前期受到关注度越高，企业的保荐机构信息更可能为投资者所熟知，投资者越可能意识到企业是否属于关联企业并做出相应反应。我们以事件前分析师跟随数量以及财经媒体报道次数衡量公司关注度，结果显示，IPO 撤单的传染效应主要发生于关注度较高的企业。

本文可能有以下贡献：（1）已有研究表明同一行业、审计机构或债权关系会引起关联企业间的传染效应，本文则从保荐机构这一传染路径出发，探讨了保荐机构负面事件是否会引起关联企业的负面市场反应，研究表明市场确实会对关联企业做出反应，说明保荐机构在 IPO 过程中承担着重要的信息鉴证职能。本文提供了新的传染路径，具有一定的创新性，丰富了已有传染效应类文献；（2）本文利用 IPO 企业撤单这一外生事件间接验证了保荐机构声誉、会计信息质量以及媒体关注的市场价值，对这些文献也有所贡献；（3）我们的结果也证实了证监会此次财务专项检查的合理性和有效性，因而对我国 IPO 制度的改革和整个资本市场的有序发展具有借鉴价值。

二、理论基础和假设发展

（一）有关传染效应的文献

传染效应是指“当某些公司发生不良事件时，与之有关系的其他公司也会存在类似事件或受到负面影响”（Leitner，2005；Gleason et al.，2008）。Gleason et al.（2008）研究发现，某企业财务重述会引起同行业其他非重述企业的股价下跌，而且企业规模越大或者外部审计师相同事染效应更强。Jorion and Zhang（2009）研究发现，债务人的破产事项会引起债权人负担市场反应及违约风险的增加，而且破产公司债务占比越高，债权人受传染的强度越大。Manz（2010）研究发现，某家公司的倒闭可能引发其他公司倒闭，而且其关联性随基本面信息相关性的提高而增强。Mistrulli（2011）研究发现，某家银行的财务危机会引发其他银行也陷入财务危机，而且银行间联系越紧密传染效应越强。Oh（2013）研究发现，某债务人发生清债危机会导致同一债权人的其他债务人续贷可能性降低进而陷入清债危机，而且实际发生清债危机公司本身的经营风险越低其传染效应越强。Bereskin and Cicero（2013）研究发现，20 世纪 90 年代 Delaware 州颁布的一项意在增加 CEO 权力以减少恶意收购的法案对 CEO 薪酬具有传染效应，受法案影响，有分层董事会（staggered board）、没有外部机构投资者的 Delaware 州公司率先增加 CEO 薪酬，随后行业内其他 Delaware 州公司以及非 Delaware 州公司也相继增加了 CEO 薪酬。Chiu et al.（2013）研究发现，企业发生财务重述时，具有相同董事的其他企业进行盈余管理的可能性更大，而且董事职位越重要传染效应越强。
Francis and Michas (2013) 研究发现，某客户出现财务重述，具有相同审计机构的其他客户盈余质量较低的概率更高，而且审计机构规模越大、专业性越强传染效应越弱。刘启亮等（2014）研究发现，白培中腐败案不仅使事件公司的股价下跌，而且由于信息传递作用，也对同行业公司产生了传染效应。其次，公司的政府控制性质对传染效应具有杠杆作用，加重了政府控制公司的传染效应。Elliot et al. (2014) 研究发现，一体化增强了不同部门间的关联性，传染效应随之增加，但由于对某部门资产依赖度的下降，破产、违约等不良事件的发生概率下降，而多元化使不同部门间的独立性增强，传染效应下降，而各部门发生不良事件的可能性增强。Kedia et al. (2015) 研究发现同行业或临近企业发生财务重述公告后，企业更可能进行盈余管理。

此外还有一类宏观传染文献，由于国际化和国家或者地区间内在的交易联系 (Caporale et al., 2005)，投资者对不同市场资产的同时持有 (Boyer et al., 2006)，一个国家或地区的经济危机会波及其他国家或地区 (Inci et al., 2011; 赵进文等, 2013)。具体而言，Cespa and Foucault (2014) 认为，市场上不同证券是相互关联的，某个证券流动性下降会波及到其他证券并最终导致整个市场流动性发生较大幅度下降。王永钦等 (2014) 研究发现，在中国一些主要的信任品市场，传染效应占主导，这表明监管制度的不力和公众对监管制度的不信任是中国信任品行业危机的重要原因。Bekaert et al. (2014) 研究发现，美国市场风险对其单个行业股票组合的传染作用很大，并且经济基础面质量越低，传染效应越严重。Garleanu et al. (2015) 研究发现，不同金融市场通过投资者和公司联系在一起，某市场投资者遭受不利事件的影响，很容易波及世界其他金融市场。

与医学上的传染类似，上述传染文献均包括传染源、传染路径、传染效果以及影响因素等要素。表 1 是我们的简单梳理：“某公司发生不良事件”为传染源，常见传染源包括财务重述、债务危机以及经营风险等；“其他公司与这些公司的某种关联”为传染路径，常见传染路径包括相同的董事、审计机构以及行业等；“与之有关联的其他公司的负面信息”为传染效应，常见传染效应检验指标包括盈余管理、股价反应以及风险变化等；而且现有文献主要从传染路径入手分析什么情况下传染效应更强。

此外，文献常用“市场对不良事件的担忧心理”解释传染效应，这类似于市场恐慌效应。Gleason et al. (2008) 认为，由于投资者对企业会计质量的普遍担忧，某企业的财务重述才会引起同行业其他非重述企业的股价下跌。Jorion and Zhang (2009) 认为，债务人的破产公告引发了市场对债权人风险的普遍担忧，进而引发市场对债权人的负向反应。Oh (2013) 认为，某债务人发生债务危机时，债权人出于对更大债务风险的担忧而减少放贷，进而导致其他债务人因可获得货款减少而陷入债务危机。Bereskin and Cicero (2013) 认为，同行业 Delaware 州其他公司以及非 Delaware 州公司之所以相继提高 CEO 薪酬，也是出于对优秀 CEO 人才失去风险的考量。可见市场担忧是传染效应的动因所在。

（二）保荐机构及其声誉价值

保荐机构具有信息披露与认证中介 (Booth and Smith, 1986; Carter and Manaster,
### 表1  传染文献梳理

| 文献出处 | 传染源 | 传染路径 | 传染效应 | 影响因素 |
|----------|--------|----------|----------|----------|
| Chiu et al. (2013) | 某企业财务重述 | 相同董事 | 其他企业可能盈余管理 | 董事职位越重要，传染效应越强 |
| Francis and Michas (2013) | 某客户财务重述 | 相同审计机构 | 其他企业的盈余质量较低的可能性较大 | 审计机构规模越大、专业性越强，传染效应越弱 |
| Gleason et al. (2008) | 某企业财务重述 | 相同行业 | 其他非重述企业的股价下跌 | 大型企业，相同外部审计师，传染效应越强 |
| Kedia et al. (2015) | 某企业财务重述 | 相同行业或临近 | 其他企业可能进行盈余管理 | 财务重述成本越低，传染效应越强 |
| Oh (2013) | 某债务人发生清债危机 | 相同债权人 | 其他债务人清债风险增加 | 清债危机公司的经营风险越低，传染效应越强 |
| Jorion and Zhang (2009) | 债务人破产公告 | 债务契约 | 债权人负向市场反应及违约风险增加 | 破产公司债务占比越高，传染效应越强 |
| Mistrulli (2011) | 一家银行陷入经融银行内部市场 | 银行更可能遭受经营危机 | 银行间的联系越紧密，传染效应越强 |
| Manz (2010) | 某家公司经营失败 | 债务契约 | 债权人也可能倒闭 | 基本面信息相关性越高，传染效应越强 |
| Bereskin and Cicero (2013) | Delaware 州董事 | 相同行会权力大的公司 | Delaware 州其他公司以及非 Delaware 州公司也相继提高了 CEO 薪酬 |
| Caporale et al. (2005); Boyer et al. (2006); Inci et al. (2011); Bekoert et al. (2014); Elliot et al. (2014); Cespa and Foucault (2014); Garleanu et al. (2015); 赵进文等（2013）; 王永钦等（2014） | 某国家或者地区国际化，国家具有关联的其他国家或者地区间的地区也会发生经济危机 | 国际化，国家具有关联的其他国家或者地区间的地区也会发生经济危机 | 国际化，国家具有关联的其他国家或者地区间的地区也会发生经济危机 |

1990）两种角色，通过上市辅导可让 IPO 企业对外披露高质量信息，同时以其自身声誉为担保获取社会公众对 IPO 企业及其所披露信息的信任。我国于 2004 年实施 IPO 保荐制，2004 年《证券发行上市保荐制度暂行办法》以及 2008 年《证券发行上市保荐业务管理办法》赋予保荐机构在上市前两年的辅导期和上市后两年的持续督导期审核公司财务报告的权力，明确了保荐机构的法律责任。但保荐制在实践中似乎并非有效，企业 IPO 后业绩变脸频现，公众普遍质疑保荐机构“荐而不保”，经验证据也表明我国保荐制只是改变了公司会计政策选择的时机并未对信息质量起到应有的作用（王克敏、廉鹏, 2010），而证券会《关于做好首次公开发行股票公司 2012 年度财务报告专项检查工作的通知》正是为了改变这一现状。
声誉是影响保荐机构“信息生产”和“认证中介”角色有效发挥的重要因素。保荐机构会利用自身行业知名度、专业性以及与监管部门的关系资源，寻找那些企业价值与自身声誉匹配的优质发行企业（Beatty and Ritter, 1986; Dewenter and Field, 2001），既能获得较好保荐收益，又能规避未来声誉受损的风险。另一方面，选择保荐服务质量较高、声誉较好的保荐机构有助于降低 IPO 企业首日折价程度，甚至会让这些企业有较好的长期市场表现（Carter and Manaster, 1990; Tinic, 1998; Jain and Kini, 1999; 郭泓、赵震宇, 2006）。如果保荐机构声誉受损，不仅影响自身经济利益，还会引起市场对保荐机构能力的怀疑以及对它所保荐公司信息质量的担忧，进而引发市场对这些公司的负面评价。

（三）假设发展

1. IPO 撤单事件是否具有传染效应

证监会《关于做好首次公开发行股票公司 2012 年度财务报告专项检查工作的通知》规定 2013 年 3 月 31 日前企业自查，3 月 31 日后证监会抽查，问题企业将终止 IPO 进程而负有责任的中介机构将受到处罚。随后证监会于 4 月 3 日公告有 166 家 IPO 企业撤单，制度规定与撤单时机意味着总体上撤单的负面信息属性。依据 Gleason et al. (2008) 对传染效应的定义，并对照表 1，本文认为，IPO 企业撤单具有传染效应，即“如果某 IPO 企业撤单，与之具有相同保荐机构的已上市公司会受到市场更强的负面反应，原因是市场会对保荐机构能力产生质疑并对会计信息质量产生担忧”。具体而言：

（1）传染源：IPO 企业撤单。根据证监会《关于做好首次公开发行股票公司 2012 年度财务报告专项检查工作的通知》规定，2013 年 3 月 31 日前企业自查，3 月 31 日后证监会抽查，问题企业将终止 IPO 进程而负有责任的中介机构将受到处罚。IPO 企业选择在 3 月 31 日前撤单而不参与证监会抽查，可能意味着撤单企业财务信息披露的不合格，也说明保荐机构的保荐质量可能存在问题。尽管 IPO 撤单企业也可能转向香港或海外市场，但是在香港或海外市场上市障碍也不比国内 A 股上市障碍小，其保荐机构必须具备相应保荐资格并且后期成本也较高，此前为国内 IPO 所花费的人力物力也将成为沉没成本。因此从总体看来，IPO 企业的撤单行为向投资者传递的更多的是 IPO 撤单企业及其保荐机构的负面消息。

（2）传染路径：相同保荐机构。市场对 IPO 企业撤单公告的反应是市场反应研究，撤单是不是意味着保荐机构的能力或 IPO 企业的信息质量较低是信号传递研究，而 IPO 企业撤单对与之有关系的已上市公司有何影响是传染效应研究。IPO 企业撤单之所以传染已上市的公司，是由于它们具有相同的保荐机构，因此保荐机构扮演着传染路径的角色。

（3）传染效应：市场对相同保荐机构保荐的已上市公司具有更强的负面反应。这与 Gleason et al. (2008) 以及 Jorion and Zhang (2009) 采用累计超常收益率验证传染效应的做法一致。

（4）传染效应的影响因素：是否具有相同保荐机构及其声誉受损程度。市场给予相同保荐机构的已上市公司的负面反应要强于不具有相同保荐机构的已上市公司，并
且保荐机构声誉受损越严重，市场给予该保荐机构保荐的已上市公司的负面反应越强烈。

（5）对传染效应的解释：市场对会计信息质量的普遍担忧。IPO 企业撤单预示着
保荐机构服务可能存在系统性风险（Francis and Michas, 2013），比如是否与客户合谋
以及专业能力是否不足等。由于学习效应的存在，投资者很可能对相同保荐机构保荐
的已上市公司的信息质量产生怀疑并做出负面评价（Oh, 2013）。

基于此，提出本文的假设 1：由于关联公司与撤单 IPO 具有同样的保荐机构，当
保荐机构声誉受到市场质疑时，关联公司相对于非关联公司具有更强的市场反应，即
IPO 撤单事件具有传染效应，而且保荐机构声誉受损越严重传染效应越强。

2. 会计信息质量、未预期信息与 IPO 撤单事件的传染效应

在市场反应以及信号传递文献中，市场对高质量会计信息以及好消息的反应一般
都是正向的（Ball and Brown, 1968）。企业前期信息质量较高时，投资者对这类企业较
为信任，即使企业的保荐机构涉及撤单事件，投资者基于企业前期的高质量会计信
息可能不会改变对企业的信任，因此这类企业可能不会受到传染效应的影响或者影响较小，
高质量的会计信息可能起到了一定的治理作用。然而在传染效应中，公司基本面
信息较好也可能是强化传染效应的因素。Manz（2010）研究发现，某公司失败可能导
致其他公司的倒闭，而且该传染效应会随基本面信息相关性的提高而增强，但因企业
濒临失败边缘而减弱。Oh（2013）研究发现，实际发生清债危机公司的经营风险越低，
相同债权人的债务人清债危机的传染效应更强烈，这是因为该类公司给债权人的冲击
更大，更可能导致其决策行为和心理的转变。进一步地，在传染类文献中，被市场普
遍看好的公司突然发生不良事件，会形成强大反差并向市场传递较强未预期信息，进
而导致传染效应发生。在 Manz（2010）的设计里，基本面信息相关性很好的公司出问
题超出了市场预期，这种未预期会招致更强的负面市场评价，而基本面信息相关性很
糟糕的公司出问题早在市场意料之中因此反应淡漠；同样在 Oh（2013）的设计里，公
认经营风险较低的公司突然陷入危机也会传递强烈的未预期信息；赵进文等（2013）
甚至直接以未预期收益率为基础分析上海市场与世界其他 27 个资本市场在次贷危机
与欧债危机期间的传染性，他们发现未预期收益率的非线性变化对危机具有预测作用。

引申到会计信息质量领域，具有较好会计信息质量的公司发生撤单事件会向市场
传递负面的未预期信息，进而引起市场更强的负面反应。研究表明，市场只会对未预
期信息产生反应而且要持续一段时间（Ball and Brown, 1968），甚至会过度反应（Bondt
and Thaler, 1985），因此超出人们想象的事情就会形成一种意外或者未预期并引发市场
的强烈反应。杨玉凤等（2008）的研究表明，ST 公司信息披露违规因在投资者的心理
预期中而不会引起投资者的强烈反应，而非 ST 公司信息披露违规因超出了投资者的心
理预期而会引起投资者的强烈反应。同理，相对于信息披露表现较差的公司，撤单事
件对于信息质量较好的公司可能会形成更多的负面未预期信息，致使市场给予更强的
负面反应，因而传染效应更强。

基于此，我们提出对立假说。
未预期信息、公司关注度与 IPO 企业撤单的传染效应

假设 2a: 企业会计信息质量越好，其所受 IPO 企业撤单的传染效应越弱。

假设 2b: 企业会计信息质量越好，其所受 IPO 企业撤单的传染效应越强。

3. 公司关注度、有限注意力与 IPO 撤单事件的传染效应

Barber and Odean (2008) 指出投资者对股票做出买入还是卖出决策前，首先得注意到该股票，企业所受关注度会影响到股票市场的反应。而媒体和分析师可能是企业受到关注的重要媒介，企业被媒体或分析师跟踪越多，IPO 企业撤单的传染效应可能越强：(1) 媒体或分析师能够吸引人们的有限注意力。注意力是一种稀缺的认知资源（Hirshleifer and Teoh, 2003），媒体可以吸引公众注意力进而影响其决策（Meschke, 2002），媒体信息能导致市场整体的波动并显著影响公司价值（Nguyen, 2015），当投资者处于有限关注时，盈余公告效应会加重（权小锋、吴世农，2010）。(2) 媒体的报道或分析师报告可能影响投资者情绪。比如，媒体能点燃投资者热情并形成显著的买入压力，进而影响市场反应（Nguyen, 2015）。相对于情绪悲观期，情绪乐观期股票价格对于好消息的反应程度更高，情绪悲观期股票价格对于坏消息的反应程度更强烈（Baker and Wurgler, 2006）。(3) 媒体报道或分析报告可能影响投资者认知。关注某家公司的证券分析师越多，或者关于某家公司的新闻报道越多，投资者对该公司的了解就越深，认知水平也越高（Barber and Odean, 2008），而投资者的认知程度直接影响着盈余信息的市场反应程度。在短期内关注度高的公司，盈余信息反映在股价中的速度更快（Fang and Peress, 2009）。

尽管 IPO 企业撤单表明保荐机构以及 IPO 企业可能存在系统性风险，但并不是所有投资者都会关注，关注的投资者也不一定理解，理解的投资者也不一定就能主导市场情绪。而媒体以及分析师的关注能吸引市场对撤单事件以及问题公司的有限注意力，增强市场对撤单事件的认知，而且还能营造市场对会计信息质量堪忧的悲观情绪。在悲观情绪下，关注度通过吸引市场有限注意力的方式放大了撤单事件的传染效应。基于此，提出本文的假设 3。

假设 3: 企业所受关注度越高，其所受 IPO 企业撤单的传染效应越强。

三、研究设计

(一) 样本选择与数据来源

样本选取过程如下：(1) 从证监会公告中搜集截至 2013 年 4 月 3 日的 IPO 企业排队及撤单信息；(2) 从 CSMAR 数据库搜集 2012 年 12 月 31 日前沪深两市所有 2,470 家已上市公司 A 股公司的相关信息，包括上市时间、上市保荐机构及其他财务指标；(3) 以 IPO 撤单企业与已上市公司的相关性信息包括上市时间、上市保荐机构及其他财务指标，通过 IPO 企业撤单的保荐机构信息区分已上市公司的关联程度，否则为“非关联上市公司”；(4) 剔除金融类企业及相关数据不可获取的上市公司，剔除 4 月 3 日发布年报的公司样本，最后得到 2,161 个公司样本，但在计算信息质量以及关注度指标时部分
数据不可得，导致回归样本相应减少。

表 2 报告了我国保荐机构的基本情况。从表中可见：（1）本次共有 74 家保荐机构推荐的 934 家企业申请 IPO，其中 54 家保荐机构推荐的 166 家企业撤单，73%的保荐机构涉及企业撤单，撤单率为 17.78%。此外，有 20 家保荐机构本次有推荐企业 IPO 但无撤单情况发生，还有 159 家保荐机构未参与本次 IPO 申请；（2）部分保荐机构涉及撤单企业数量较大，如国信证券涉及 15 家、撤单率 22%，中信建投证券涉及 12 家、撤单率 22.22%，民生证券涉及 11 家、撤单率 35.48%，24 家保荐机构涉及 1 家、平均撤单率 0.685%，13 家保荐机构涉及 2 家、平均撤单率 1.312%，这说明并非本次保荐数量越多涉及撤单数量也越多；（3）涉及本事件且有撤单的 54 家保荐机构已成功保荐了 1,426 家企业成功上市，即“关联上市公司”约占 57.733%；（4）对照各保荐机构按保荐上市公司数量计算的市场份额，可以发现并非以前市场份额越多涉及此次撤单数量越多。

表 2 2013 年 4 月 3 日各保荐机构撤单情况

| 保荐机构 | 本次保荐 IPO 企业数量 | 本次保荐 IPO 撤单数量 | 已保荐上市企业数量 | 市场份额 |
|----------|------------------------|-----------------------|----------------------|----------|
| 国信证券 | 68                     | 15                    | 150                  | 6.073%   |
| 中信建投证券 | 54                 | 12                    | 30                   | 1.215%   |
| 民生证券 | 31                     | 11                    | 28                   | 1.134%   |
| 海通证券 | 34                     | 9                     | 88                   | 3.563%   |
| 招商证券 | 58                     | 9                     | 80                   | 3.239%   |
| 广发证券 | 56                     | 8                     | 116                  | 4.696%   |
| 华泰联合证券 | 32                 | 8                     | 49                   | 1.984%   |
| 华林证券 | 37                     | 7                     | 10                   | 0.405%   |
| 中信证券 | 40                     | 6                     | 101                  | 4.089%   |
| 光大证券 | 27                     | 5                     | 66                   | 2.672%   |
| 齐鲁证券 | 26                     | 5                     | 10                   | 0.405%   |
| 安信证券 | 26                     | 4                     | 29                   | 1.174%   |
| 东方证券 | 7                      | 4                     | 16                   | 0.648%   |
| 平安证券 | 24                     | 4                     | 134                  | 5.425%   |
| 中国银河证券 | 10                 | 3                     | 23                   | 0.931%   |
| 涉及 2 家企业撤单的 13 家保荐机构 | 152 | 2 | 263 | 10.648% |
| 涉及 1 家企业撤单的 24 家保荐机构 | 146 | 1 | 197 | 7.976% |
| 涉及本事件且有撤单的 54 家保荐机构 | 851 | 166 | 1426 | 57.733% |
| 本次未推荐企业 IPO 的 159 家保荐机构 | 83 | 0 | 150 | 6.073% |
| 共计 233 家保荐机构 | 934 | 166 | 2470 | 100% |

4 这与证监会公布的最新数据有出入，主要原因是很多机构相对独立，但可能同时隶属于某个法人。
（二）变量选择与模型设计

参照 Gleason et al. (2008) 以及 Jorion and Zhang (2009) 的做法，本文采用 Fama et al. (1969) 提出的事件研究法，并采用累计超常收益率 (CAR) 检验 IPO 撤单事件的传染效应。方程 (1) 用于检验假设 1，预期保荐机构声誉受损指标 RepuDown 的回归系数 $\beta_{i1}$ 显著为负。

$$CAR_i(t_1,t_2) = \alpha_i + \beta_{i1} \text{RepuDown} + \beta_{i2} \text{Size} + \beta_{i3} \text{Lev} + \beta_{i4} \text{RoA} + \beta_{i5} \text{Industry} + \varepsilon \quad (1)$$

本文通过按会计信息质量 (Quality) 中位数对方程 (1) 分组回归验证假设 2a 和假设 2b。本文通过公司关注度 (Focus) 中位数对方程 (1) 分组回归验证假设 3，预期 RepuDown 的回归系数 $\beta_{i1}$ 在高公司关注度组具有更高的显著负向关系。

1. CAR 值的计算

我们以 2013 年 4 月 3 日作为事件日，选取若干短期事件窗口计算 CAR 值，表示撤单公告期间的短期市场反应。首先利用窗口 $[-155, -6]$ (李常青等, 2010) 的股票信息对市场模型 (2) 进行回归，估计回归系数 $\alpha_i$ 和 $\beta_i$:

$$R_{it} = \alpha_i + \beta_i R_{mt} + \varepsilon_{it} \quad (2)$$

其中，$R_{it}$ 为股票 $i$ 在第 $t$ 日的实际收益率，$R_{mt}$ 为 $t$ 日市场收益率，$\varepsilon_{it}$ 表示随机误差项。

随后利用估计出的回归系数 $\alpha_i$ 和 $\beta_i$，进一步估计出事件窗口期间各交易日股票的期望正常收益率:

$$E(R_{it}) = \alpha_i + \beta_i R_{mt} \quad (3)$$

再计算股票 $i$ 在事件窗口期间 $t$ 日的超额收益率:

$$AR_t = R_{it} - E(R_{it}) \quad (4)$$

最后计算股票 $i$ 在 $[t_1, t_2]$ 期间的累计超额收益率:

$$CAR_i(t_1,t_2) = \sum_{t_1}^{t_2} AR_{it} \quad (5)$$

2. 解释变量

保荐机构声誉受损 (RepuDown)。我国绝大多数保荐机构同时也是股票发行的承销商，而承销商声誉的衡量主要有两类：IPO “墓碑公告”（tombstone announcement）中承销商排名顺序 (Johnson and Miller, 1988; Carter and Manaster, 1990) 以及证券承销的市场占有份额 (Meggison and Weiss, 1991)，因此我们参照前述国外以及国内如黄
春玲（2005）等关于承销商声誉的文献，并结合本次 IPO 企业撤单实际情况，以保荐机构是否涉及 IPO 撤单以及撤单的数量与比例衡量保荐机构声誉受损状况。包括：（1）$S_{giveup1c}$ 表示该保荐机构此次的 IPO 撤单企业数量；（2）$S_{giveup1d}$ 表示已上市公司的保荐机构是否也是 IPO 撤单企业的保荐人，若是取 1 否则为 0；（3）$R_{giveup1c}$ 表示保荐机构本次撤单企业数量占其此次保荐企业总数的比例；（4）$R_{giveup1d}$ 表示保荐机构本次撤单企业数量占此次 IPO 撤单企业总数的比例；（5）$Rank1c$ 表示按照保荐机构撤单数量，对所有保荐机构由小到大排序后得到的 Rank 值，该值越大表明撤单越多。所有指标数值越大表明保荐机构声誉受损的可能性越大，其所保荐的已上市公司受传染的可能性越大。依据假设 1 推导，如果 RepuDown 回归系数为负且显著说明撤单具有传染效应。

会计信息质量（Quality）。现有文献常用盈余管理（Jones, 1991）以及审计质量（Francis and Michas, 2013）度量会计信息质量，也有文献将分析师预测一致性等也视为信息质量的替代。但由于分析师对企业会计信息不具有鉴证作用，因此本文主要参照前两者设计信息质量指标。包括：（1）根据 Jones（1991）模型计算公司 2013 年超额应计的绝对值（abs_DTAC），该绝对值越大表明企业信息质量越差；（2）参照徐浩萍、罗炜（2007）的做法设置“业绩是否变脸”（change）指标，若公司 2013 年第一季度净利润低于 2012 年第一季度净利润取 1，表明企业发生业绩变脸，此时信息质量较差，否则取 0，表示企业信息质量较好；（3）参照王兵等（2009）的做法设置“是否聘请十大会计师事务所”（Bigten），若公司 2013 年年报审计师为十大会计师事务所则取 1，否则为 0。我们通过信息质量对方程（1）进行分组回归的方式验证假设 2a 和假设 2b。

公司关注度（Focus）。（1）媒体报道次数（Media），我们通过巨灵数据库搜集了 2013 年 3 月 1 日至 2013 年 5 月 30 日媒体对各企业的报道条数，衡量企业受媒体关注的程度（罗进辉，2012）；（2）分析师跟踪数量（Analyst），数值越大说明公司受投资者关注的可能性越大（Mola et al., 2013）。我们通过公司关注度对方程（1）进行分组回归的方式验证假设 3，预期在公司关注度较高组 RepuDown 的回归系数为负且显著。

参照 Ball and Brown（1968）的做法，本文还控制了公司规模（Size）、资产负债率（Lev）、总资产报酬率（ROA）、风险系数（Beta）6、行业虚拟变量（Industry）7 等因素。

（三）变量描述性统计

表 3 是保荐机构声誉受损情况的描述性统计：（1）$S_{giveup1c}$ 均值说明在本次 IPO

5 我们没有采用事件日前长期以及事件日后长期事件窗口的媒体报道次数，原因是，媒体对热点的关注往往具有实效性，较长窗口的媒体报道很可能与 IPO 撤单毫无关系，而且人们很可能很快淡忘这些热点，而无法在事件日短窗口里吸引投资者的注意力。
6 自 2013 年 3 月 26 日开始回溯前一年，计算机公司股票日收益率与市场日收益率的相关系数。
7 以证监会行业分类一级代码进行划分，其中制造业按照二级代码进一步划分，共 20 个行业虚拟变量。
未预期信息、公司关注度与 IPO 企业撤单的传染效应

企业涉及的 74 家保荐机构中每家平均有 3 家 IPO 企业撤单，但有的保荐机构推荐的 IPO 企业无撤单企业，而有的保荐机构推荐的 IPO 企业撤单高达 15 家。（2）Sgiveup1d 的均值说明 61.2% 的已上市公司为“关联上市公司”。（3）Rgiveup1c 的均值说明本次 IPO 企业的撤单率为 11.8%，但有的保荐机构所推荐 IPO 企业的撤单率高达 57.1%。（4）Rgiveup1d 的均值说明保荐机构平均撤单数量占总撤单数的 2.21%，但有些保荐机构的这一比例高达 9.04%。

其他变量的描述统计表明：（1）会计信息质量方面，44.4% 的企业存在业绩变脸现象，而且关联企业的业绩变脸显著高于非关联企业。56.6% 的企业聘请了十大会计师事务所审计，而且关联企业的这一比例要显著高于非关联企业，但两类企业的盈余管理水平无显著差异。（2）公司关注度方面，分析师跟随数量平均为 44 家，但各公司差异较大，最少 1 家，最多 478 家，而且关联企业的分析师跟随数量显著高于非关联企业。媒体报道条数平均为 56 条，最多达到 1,348 条，说明各公司受关注程度差异较大，但两组媒体报道数量无显著差异。（3）从其他指标看，风险系数平均为 1.185，ROA 均值为 4%，资产负债率平均为 42.5%。总体而言，非关联企业的规模和债务水平显著高于关联企业，而风险与收益率要显著低于关联企业。

| Variable | N  | Mean | p25  | p50  | p75  | sd   | Min  | Max  | 非关联组 | 关联组 | T 值  |
|----------|----|------|------|------|------|------|------|------|---------|-------|-------|
| Sgiveup1c | 2161 | 3.668 | 0 | 2 | 6 | 4.479 | 0 | 15 |
| Sgiveup1d | 2161 | 0.612 | 0 | 1 | 1 | 0.487 | 0 | 1 |
| Rgiveup1c | 2161 | 0.118 | 0 | 0.143 | 0.188 | 0.117 | 0 | 0.571 |
| Rgiveup1d | 2161 | 0.0221 | 0 | 0.0120 | 0.0361 | 0.0270 | 0 | 0.0904 |
| Rank1c   | 2161 | 4.442 | 1 | 3 | 7 | 3.963 | 1 | 13 |
| Size     | 2161 | 21.83 | 20.91 | 21.64 | 22.51 | 1.297 | 15.73 | 28.41 | 22.14 | 21.64 | 0.493*** |
| Lev12    | 2161 | 0.425 | 0.230 | 0.417 | 0.604 | 0.236 | 0.0110 | 1.897 | 0.509 | 0.372 | 0.137*** |
| ROA12    | 2161 | 0.0402 | 0.0145 | 0.0376 | 0.0670 | 0.0632 | -1.292 | 0.695 | 0.0310 | 0.0460 | -0.016*** |
| Beta     | 2161 | 1.185 | 1.037 | 1.188 | 1.351 | 0.248 | 0.378 | 2.638 | 1.173 | 1.193 | -0.020* |
| abs_DTAC | 2032 | 1.744 | 0.931 | 1.507 | 2.247 | 2.082 | 0.000926 | 128.2 | 1.714 | 1.764 | -0.0510 |
| change1  | 3161 | 0.444 | 0 | 0 | 1 | 0.497 | 0 | 1 | 0.419 | 0.460 | -0.041* |
| Bigten   | 2161 | 0.566 | 0 | 0 | 1 | 0.496 | 0 | 1 | 0.539 | 0.584 | -0.044** |
| Analyst  | 2161 | 44.66 | 3 | 19 | 57 | 65.04 | 1 | 478 | 34.65 | 51.01 | -16.358*** |
| Media3   | 2161 | 56.83 | 21 | 19 | 65 | 74.39 | 0 | 1348 | 57.69 | 56.29 | 1.396 |

（四）撤单公告前后累计超常收益率分析

为了观察撤单公告日短期市场反应的规律，我们按企业是否为关联上市公司划分子样本，并计算各子样本在 2013 年 4 月 3 日撤单公告日 [-5, 5] 的 CAR 值并画出趋势图。图 1 显示：（1）在撤单公告颁布前四天，即 [-5, -2] 窗口中关联企业与非关联企业 CAR 值均呈上升趋势，且二者无明显差异。（2）从-2 天开始，CAR 值开始呈下降

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8 这个数据前对于表 1 有所增加，是因为删除了部分财务数据缺失的样本。
趋势，并且关联企业 CAR 值为负。（3）[-2, 5] 窗口内，CAR 值虽有回升趋势，但非关联企业 CAR 值大于 0 并回归到事件日之前水平，而关联企业 CAR 值依然小于 0 并在 [2, 5] 窗口内呈下降趋势，远低于事件日前 CAR 值水平。

图 1 撤单公告颁布前后 CAR 值走势图

为更清晰观察撤单的传染效应，我们分别统计了非关联企业和关联企业“各交易日”的超额收益率（AR）平均值以及“各窗口”的累计超额收益率（CAR）平均值，并做了差异性检验。表 4 的结果显示：（1）从日超额收益率的平均值看，事件日上市公 AR 值为负，并且关联企业 AR 值显著低于非关联企业。（2）从“各窗口”的累计超额收益率（CAR）平均值看，[-5, 2] 窗口关联企业与非关联企业 CAR 值为正，且二者无显著差异，[-5, -1] 窗口开始，非关联企业 CAR 值为正，而关联企业 CAR 值为

| Day | AR-非关联 | AR-关联 | Diff | Windows | CAR-非关联 | CAR-关联 | Diff |
|-----|------------|--------|------|---------|------------|---------|------|
| -5  | 0.000      | 0.001  | 0.000 CAR(-5, -5) 0.000 | 0.001       | 0.000     |
| -4  | 0.001      | 0.002  | -0.001 CAR(-5, -4) 0.001 | 0.002       | -0.001   |
| -3  | 0.002      | -0.001 | 0.002** CAR(-5, -3) 0.003 | 0.002       | 0.001   |
| -2  | 0.004      | 0.005  | -0.001 CAR(-5, -2) 0.007 | 0.007       | 0.000   |
| -1  | -0.002     | -0.009 | 0.007*** CAR(-5, -1) 0.005 | -0.003      | 0.007*** |
| 0   | -0.006     | -0.008 | 0.002** CAR(-5, 0) -0.001 | -0.010      | 0.010*** |
| 1   | 0.004      | 0.007  | -0.003** CAR(-5, 1) 0.003 | -0.004      | 0.007** |
| 2   | 0.002      | 0.002  | 0.000 CAR(-5, 2) 0.005 | -0.002      | 0.007*** |
| 3   | -0.001     | -0.004 | 0.003*** CAR(-5, 3) 0.004 | -0.007      | 0.010*** |
| 4   | 0.000      | -0.001 | 0.001 CAR(-5, 4) 0.004 | -0.007      | 0.011*** |
| 5   | -0.002     | -0.001 | -0.001 CAR(-5, 5) 0.002 | -0.009      | 0.010*** |
未预期信息、公司关注度与 IPO 企业撤单的传染效应

负，且二者差异显著，说明 IPO 撤单事件对于关联企业具有较大的负面影响，初步证实了传染效应的存在。

四、实证结果与分析

（一）IPO 企业撤单的传染效应分析

根据表 4 以及图 1 的分析，本文所有回归以窗口 [-3, 3] 的累计超额收益率 (CAR) 为主。表 5 报告了 IPO 企业撤单传染效应的分析结果，证据显示：保荐机构声誉受损的五个替代变量 Sgiveup1c、Sgiveup1d、Rgiveup1c、Rgiveup1d 以及 Rank1c 的回归系数均显著为负。这说明：（1）相对于非关联企业，关联企业的市场反应更差，即关联企业的传染效应要强于非关联企业。（2）保荐机构声誉受损程度越严重，关联企业受到的传染效应越大。本文假设 1 得以验证。

表 5 撤单事件的传染效应分析（CAR[-3, 3]）

| VARIABLES | (1)  | (2)  | (3)  | (4)  | (5)  |
|-----------|-----|-----|-----|-----|-----|
| RepuDown  | -0.001* | -0.008*** | -0.019* | -0.092* | -0.001** |
|           | (-1.929) | (-2.936) | (-1.687) | (-1.929) | (-2.196) |
| Size      | 0.004*** | 0.004*** | 0.004*** | 0.004*** | 0.004*** |
|           | (3.527)  | (3.473)  | (3.482)  | (3.527)  | (3.513)  |
| Lev12     | -0.003   | -0.004   | -0.003   | -0.003   | -0.003   |
|           | (-0.362) | (-0.606) | (-0.385) | (-0.362) | (-0.402) |
| ROA12     | -0.046** | -0.045** | -0.047** | -0.046** | -0.046** |
|           | (-2.067) | (-2.046) | (-2.110) | (-2.067) | (-2.053) |
| Beta      | 0.032*** | 0.032*** | 0.032*** | 0.032*** | 0.032*** |
|           | (5.897)  | (5.904)  | (5.897)  | (5.897)  | (5.901)  |
| Industry  | Controlled | Controlled | Controlled | Controlled | Controlled |
| Constant  | -0.109*** | -0.104*** | -0.107*** | -0.109*** | -0.108*** |
|           | (-4.088) | (-3.864) | (-3.996) | (-4.088) | (-4.023) |
| Observations | 2,161       | 2,161       | 2,161       | 2,161       | 2,161       |
| R-squared | 0.064       | 0.066       | 0.064       | 0.064       | 0.065       |
| F         | 5.851       | 6.060       | 5.814       | 5.851       | 5.898       |

表 6 是采用其他对称窗口对表 5 所做的稳健性检验，限于篇幅，我们只报告每个窗口 CAR 值回归的 RepuDown 系数以及 t 值。结果显示：所有窗口 RepuDown 的回归系数均为负，而且多数具有统计意义上的显著性。

表 7 是按交易量变化对表 5 所做的稳健性检验，限于篇幅，我们只报告 [-3, 3] 窗口的回归结果。交易量反应研究是信息含量的另一种检验方式（Beaver, 1968），其计算原理与 CAR 类似，首先用个股交易量分别对市场交易量模型进行回归以估计系数值,
然后根据该系数估计正常交易量，再用实际交易量减去估计交易量计算超常交易量。回归结果显示，五个RepuDown回归系数均为负且三个具有显著性，进而为撤单事件具有传染效应提供了新的证据。

表 6  撤单事件的传染效应分析（其他窗口）

| VARIABLES | Sgiveup1c | Sgiveup1d | Rgiveup1c | Rgiveup1d | Rank1c |
|-----------|----------|----------|----------|----------|--------|
| Window[-5, 5] | -0.000   | -0.006*  | -0.010   | -0.049   | -0.000 |
|           | (-0.905) | (-1.841) | (-0.804) | (-0.905) | (-1.253) |
| Window[-4, 4] | -0.001*  | -0.008***| -0.020*  | -0.096*  | -0.001**|
|           | (-1.899) | (-2.673) | (-1.647) | (-1.899) | (-2.208) |
| Window[-2, 2] | -0.000   | -0.005** | -0.012   | -0.050   | -0.000 |
|           | (-1.222) | (-2.051) | (-1.298) | (-1.222) | (-1.436) |
| Window[-1, 1] | -0.000   | -0.005** | -0.017** | -0.028   | -0.000 |
|           | (-0.808) | (-2.350) | (-2.155) | (-0.808) | (-0.952) |

表 7  撤单事件的传染效应分析（交易量检验，Window [-3, 3]）

| VARIABLES | Sgiveup1c | Sgiveup1d | Rgiveup1c | Rgiveup1d | Rank1c |
|-----------|----------|----------|----------|----------|--------|
| RepuDown  | -0.634   | -12.512**| -47.005* | -105.186 | -0.745 |
|           | (-0.988) | (-2.077) | (-1.887) | (-0.988) | (-1.026) |
| Size      | 7.181*** | 7.037*** | 6.947*** | 7.181*** | 7.173***|
|           | (2.763)  | (2.709)  | (2.670)  | (2.763)  | (2.760) |
| Lev       | 39.104** | 35.737** | 36.765** | 39.104** | 38.958**|
|           | (2.486)  | (2.260)  | (2.331)  | (2.486)  | (2.475) |
| ROA       | -82.551* | -80.802  | -82.108* | -82.551* | -82.423*|
|           | (-1.655) | (-1.622) | (-1.648) | (-1.655) | (-1.652) |
| Beta      | -84.984***| -84.866***| -84.566***| -84.984***| -84.997***|
|           | (-6.966) | (-6.963) | (-6.935) | (-6.966) | (-6.967) |
| Industry  | Controlled | Controlled | Controlled | Controlled | Controlled |
| Constant  | -51.596  | -40.922  | -41.529  | -51.596  | -50.319 |
|           | (-0.862) | (-0.681) | (-0.690) | (-0.862) | (-0.839) |
| Observations | 2,161   | 2,161    | 2,161    | 2,161    | 2,161 |
| R-squared | 0.102   | 0.104    | 0.104    | 0.102    | 0.102 |
| F         | 9.749   | 9.898    | 9.864    | 9.749    | 9.753 |

（二）会计信息质量对IPO企业撤单传染效应的影响

较高的会计信息质量可能起到一定的治理作用，即当关联企业会计信息质量较高时，投资者对关联企业的信任度较高，可能不会因撤单事件改变对关联企业的看法，导致高会计信息质量的关联企业不受传染效应的影响或影响较小。但另一方面，对于信息质量较高的关联企业，撤单事件可能对于投资者属于增量信息，如果冲击到投资
未预期信息、公司关注度与 IPO 企业撤单的传染效应

者对企业已有的信任并引起怀疑，可能导致企业受到的传染效应更强。为了检验会计信息质量对 IPO 企业撤单传染效应的影响，我们根据信息质量将样本分为两组，检验两组样本中传染效应是否存在。

首先，我们按照盈余管理程度的中位数对方程 (1) 进行分组回归。盈余管理程度低意味着信息质量越好（Dechow et al., 1995）。在表 8 的回归结果中，盈余管理程度较低组的所有 RepuDown 回归系数基本显著为负，而盈余管理程度较高组的所有 RepuDown 回归系数为负但均不显著，说明 IPO 撤单的传染效应主要存在于信息质量较好的企业。这说明信息质量较好的企业突然受到负面信息影响时，会形成一种未预期，并为投资者提供了增量信息，因此市场更可能对该信息作出负面反应，支持了假设 2b。

其次，我们采用业绩是否变脸对方程 (1) 进行分组回归。市场对保荐机构荐而不保的诟病，主要缘于企业 IPO 后的业绩大面积变脸，因此业绩变脸也被用于衡量企业质量以及保荐机构声誉。本文将 2013 年业绩是否变脸作为信息质量的替代以检验会计信息质量对 IPO 企业撤单传染效应的影响。表 9 分组回归结果显示 RepuDown 的回归系数仅在未发生业绩变脸组显著为负，同样支持了假设 2b。

最后，我们采用企业 2012 年末是否聘请十大会计师事务所审计对方程 (1) 进行分组回归。审计类文献一般用是否前四大或者前十大做为审计质量或会计质量的替代，审计机构越大会计或审计质量越高。表 10 的回归结果显示，聘请十大审计组 RepuDown 回归系数显著为负，而聘请非十大审计组 RepuDown 的回归系数为负但均不显著。这

表 8  盈余管理程度与撤单的传染效应（CAR[-3, 3]）

| VARIABLES | Sgiveup1c | Sgiveup1d | Rgiveup1c | Rgiveup1d | Rank1c |
|-----------|-----------|-----------|-----------|-----------|--------|
| RepuDown  | -0.000**  | -0.000    | -0.002    | -0.001    | -0.006 |
|           | (-2.340)  | (-0.270)  | (-1.680)  | (-0.741)  | (-1.185) |
|           | 0.002***  | 0.001***  | 0.002***  | 0.001***  | 0.002** |
|           | (3.190)   | (2.635)   | (2.375)   | (2.592)   | (2.345) |
| Lev       | 0.003     | 0.003     | 0.003     | 0.003     | 0.003   |
|           | (0.711)   | (0.601)   | (0.675)   | (0.677)   | (0.691) |
| ROA       | 0.000     | -0.026*** | -0.001    | -0.026*** | -0.001 |
|           | (0.008)   | (-3.055)  | (-0.997)  | (-3.010)  | (-0.045) |
| Beta      | 0.005*    | 0.004     | 0.005*    | 0.004     | 0.005*  |
|           | (1.676)   | (1.458)   | (1.668)   | (1.474)   | (1.715) |
| Industry  | Controlled| Controlled| Controlled| Controlled| Controlled|
| Constant  | -0.049**  | -0.050*** | -0.049*** | -0.049*** | -0.050*** |
|           | (-3.306)  | (-3.989)  | (-3.319)  | (-3.887)  | (-3.362) |
| Observations | 1,016 | 1,016 | 1,016 | 1,016 | 1,016 |
| R-squared | 325.5 | 368.5 | 324.5 | 368.7 | 324.0 | 368.8 | 325.5 | 368.5 | 325.7 | 368.5 |

表 9 业绩变脸组与撤单的传染效应（CAR[-3, 3]）
由于聘请十大审计传递了信息质量较高的信号，而传染事件的负面消息与之形成强烈反差，这种未预期信息致使市场强烈反应，导致聘请十大审计师事务所的企业受到传染效应影响。本文假设2b得到支持。

### 表9 业绩变脸与撤单的传染效应（CAR[-3, 3]）

| VARIABLES | Sgiveup1c | Sgiveup1d | Rgiveup1c | Rgiveup1d | Rank1c |
|-----------|-----------|-----------|-----------|-----------|--------|
| RepuDown  | -0.000    | -0.000    | -0.001    | -0.002    | -0.003  |
|           | (-0.981)  | (-1.764)  | (-1.883)  | (-1.499)  | (-1.416) |
|           | 0.001**   | 0.002***  | 0.002***  | 0.001**   | 0.002*** |
|           | (2.087)   | (3.384)   | (2.084)   | (3.355)   | (2.087)  |
| Lev       | -0.001    | -0.001    | -0.001    | -0.001    | -0.001   |
|           | (-0.366)  | (0.636)   | (-0.320)  | (0.625)   | (-0.366) |
|           | -0.019    | -0.019    | -0.014    | -0.015    | -0.019   |
|           | (-1.410)  | (-1.588)  | (-1.442)  | (-1.627)  | (-1.410) |
| Beta      | 0.002     | 0.007***  | 0.002     | 0.007***  | 0.002    |
|           | (0.697)   | (2.789)   | (0.682)   | (2.786)   | (0.697)  |

| Industry | Controlled | Controlled | Controlled | Controlled | Controlled | Controlled | Controlled | Controlled | Controlled | Controlled |
|----------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| Constant | -0.038***  | -0.050***  | -0.037***  | -0.038***  | -0.038***  | -0.050***  | -0.037***  | -0.050***  | -0.037***  | -0.050***  |
|          | (-3.143)   | (-3.823)   | (-3.116)   | (-3.749)   | (-3.123)   | (-3.777)   | (-3.143)   | (-3.823)   | (-3.117)   | (-3.775)   |

| Observations | 959 1,202 959 1,202 959 1,202 959 1,202 959 1,202 |
|--------------|--------------------------------------------------|
| R-squared    | 0.903 0.897 0.903 0.897 0.903 0.897 0.903 0.897 0.903 0.897 |
| F            | 320.9 379.2 320.7 379.4 320.7 378.8 320.9 379.2 321.0 379.4 |

### 表10 审计机构与撤单的传染效应（CAR[-3, 3]）

| VARIABLES | Sgiveup1c | Sgiveup1d | Rgiveup1c | Rgiveup1d | Rank1c |
|-----------|-----------|-----------|-----------|-----------|--------|
| RepuDown  | -0.000    | -0.000    | -0.002    | -0.003    | -0.002  |
|           | (-2.196)  | (-0.386)  | (-1.768)  | (-0.722)  | (-1.700) |
|           | 0.002***  | 0.002***  | 0.002***  | 0.002***  | 0.002*** |
|           | (3.288)   | (3.320)   | (3.226)   | (1.409)   | (3.288)  |
| Lev       | 0.004     | -0.002    | 0.003     | -0.003    | 0.004    |
|           | (1.114)   | (-0.662)  | (1.062)   | (-0.732)  | (1.104)  |
|           | -0.018*   | -0.016    | -0.016    | -0.016    | -0.016   |
|           | (-1.688)  | (-1.562)  | (-1.553)  | (-1.701)  | (-1.582) |
| Beta      | 0.005**   | 0.005**   | 0.004     | 0.005**   | 0.004    |
|           | (2.185)   | (1.375)   | (2.199)   | (1.366)   | (2.185)  |
| Constant  | -0.057*** | -0.024    | -0.057*** | -0.024    | -0.057***|
|           | (-4.861)  | (-1.635)  | (-4.807)  | (-1.550)  | (-4.742) |

| Industry | Controlled | Controlled | Controlled | Controlled | Controlled | Controlled | Controlled | Controlled | Controlled | Controlled |
|----------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| Observations | 1,224 937 1,224 937 1,224 937 1,224 937 1,224 937 |
| R-squared | 0.895 0.905 0.895 0.905 0.895 0.905 0.895 0.905 0.895 0.905 |
| F         | 379.1 320.6 378.5 320.7 378.4 320.5 379.1 320.6 379.2 320.6 |
未预期信息、公司关注度与 IPO 企业撤单的传染效应

（三）公司关注度对撤单传染效应的强化作用

公司所受关注度越高，投资者对于上市企业的保荐机构了解的可能性越高，越可能分辨企业是否属于关联企业，并将企业与撤单事件联系起来。因此公司所有关注度越高，企业所受传染效应可能越强。为了验证这一假设，我们以分析师跟踪人数和媒体报道数量衡量公司关注度进行检验。

### 表 11 分析师跟随人数与撤单的传染效应（CAR[-3, 3]）

| VARIABLES | Sgiveup1c | Sgiveup1d | Rgiveup1c | Rgiveup1d | Rank1c |
|-----------|-----------|-----------|-----------|-----------|--------|
| RepuDown  | -0.000    | -0.000**  | -0.000    | -0.000    | -0.000 |
|           | (-1.139)  | (-1.788)  | (-1.799)  | (-1.799)  | (-1.788) |
|           | 0.001**   | 0.001**   | 0.001**   | 0.001**   | 0.001** |
|           | (2.519)   | (2.220)   | (2.157)   | (2.220)   | (2.220) |
| Lev       | -0.003    | 0.002     | -0.003    | 0.002     | -0.003 |
|           | (-0.900)  | (0.560)   | (-0.875)  | (0.531)   | (-0.900) |
|           | -0.013    | -0.025*   | -0.013    | -0.025*   | -0.013 |
|           | (-1.429)  | (-1.881)  | (-1.443)  | (-1.897)  | (-1.881) |
| Beta      | 0.000     | 0.007***  | 0.000     | 0.007***  | 0.000  |
|           | (0.131)   | (2.854)   | (0.125)   | (2.841)   | (0.131) |
| Industry  | Controlled | Controlled | Controlled | Controlled | Controlled |
| Constant  | -0.036*** | -0.050*** | -0.036*** | -0.050*** | -0.036*** |
|           | (-2.763)  | (-3.417)  | (-2.747)  | (-3.211)  | (-2.763) |
| Observations | 1,084 | 1,077 | 1,084 | 1,077 | 1,084 |
| R-squared | 0.900     | 0.900     | 0.900     | 0.900     | 0.900  |
| F         | 352.6     | 347.8     | 352.4     | 347.8     | 352.7  |

### 表 12 媒体报道次数与撤单的传染效应（CAR[-3, 3]）

| VARIABLES | Sgiveup1c | Sgiveup1d | Rgiveup1c | Rgiveup1d | Rank1c |
|-----------|-----------|-----------|-----------|-----------|--------|
| RepuDown  | -0.000**  | -0.000    | -0.002    | -0.002    | -0.007 |
|           | (-2.429)  | (-0.773)  | (-1.405)  | (-1.387)  | (-1.115) |
|           | 0.001*    | 0.002***  | 0.002***  | 0.002***  | 0.001*  |
|           | (1.936)   | (2.965)   | (2.931)   | (2.906)   | (2.936) |
| Lev       | 0.001     | -0.002    | 0.001     | -0.002    | 0.001   |
|           | (0.392)   | (-0.538)  | (0.415)   | (-0.657)  | (0.358) |
| ROA       | -0.036*** | -0.010    | -0.037*** | -0.010    | -0.036*** |
|           | (-3.365)  | (-0.937)  | (-3.459)  | (-0.949)  | (-3.514) |
| Beta      | 0.004     | 0.007**   | 0.004     | 0.007**   | 0.004   |
|           | (1.619)   | (2.375)   | (1.575)   | (2.389)   | (1.619) |
| Industry  | Controlled | Controlled | Controlled | Controlled | Controlled |
| Constant  | -0.037*** | -0.049*** | -0.036*** | -0.047*** | -0.037*** |
|           | (-3.022)  | (-3.505)  | (-2.910)  | (-3.364)  | (-3.297) |
| Observations | 1,089 | 1,072 | 1,089 | 1,072 | 1,089 |
| R-squared | 0.898     | 0.902     | 0.898     | 0.902     | 0.898  |
| F         | 346.6     | 355.8     | 345.2     | 356.3     | 345.5  |
首先，我们采用分析师跟随人数衡量公司关注度，并按中位数分组对方程（1）进行回归，以检验本文假设。表11的回归结果显示，更多分析师跟随的企业的RepuDown回归系数基本显著为负，而更少分析师跟随的企业的RepuDown回归系数为负且均不显著，验证了本文的假设。

然后，我们采用媒体报道次数衡量公司关注度，并按中位数分组对方程（1）进行回归，以检验本文假设。表12的回归结果显示，更多分析师跟随的企业的RepuDown回归系数基本显著为负，而更少分析师跟随的企业的RepuDown回归系数为负且均不显著，验证了本文的假设。

(四)其他稳健性检验

为了确保本文结果的可靠性，我们做了如下稳健性检验：

首先，进一步区分企业关注度正面/负面对IPO撤单传染效应的影响。企业受到关注时可能是出于正面消息，也可能出于负面消息，而关注度的正面或负面性可能影响市场对企业信息的反应。据此，我们根据Solomon et al.（2014）通过企业事件日前35日至事件日前6日的CAR值是否大于0或小于0（CAR_pre）衡量事件日前企业信息的正面或负面程度。这一做法的逻辑在于媒体报道或分析师报告的正面或负面会反映到股价上。这一做法相比于文本分析的好处在于：（1）这一做法依据市场参与者而非研究者对媒体/分析师报告信息的解读，因此更为客观；（2）能够反映市场对媒体/分析师报告信息的总体解读或评价，而非对单条新闻/报告的独立评价。

表13 前期市场反映与撤单的传染效应（CAR[-3, 3]）

| VARIABLES | Sgiveup1c | Sgiveup1d | Rgiveup1c | Rgiveup1d | Rank1c |
|-----------|-----------|-----------|-----------|-----------|--------|
| RepuDown  | -0.001*   | 0.000     | -0.007**  | -0.004    | -0.016  |
|           | (-1.701)  | (0.140)   | (-2.203)  | (-0.842)  | (-1.206) |
|           | 0.002     | 0.004**   | 0.002     | 0.004**   | 0.002   |
|           | (1.169)   | (2.163)   | (1.127)   | (2.113)   | (1.141) |
| Lev12     | 0.002     | -0.031**  | 0.000     | -0.031**  | 0.002   |
|           | (0.248)   | (-2.191)  | (0.057)   | (-2.241)  | (0.241) |
| ROA12     | -0.064**  | -0.007    | -0.063**  | -0.008    | -0.066** |
|           | (-2.502)  | (-0.157)  | (-2.472)  | (-0.174)  | (-2.571) |
| Beta      | 0.029***  | 0.038***  | 0.030***  | 0.038***  | 0.029*** |
|           | (4.262)   | (4.466)   | (4.289)   | (4.424)   | (4.429) |
| Constant  | -0.058    | -0.105*** | -0.053    | -0.099**  | -0.057  |
|           | (-1.592)  | (-2.604)  | (-1.462)  | (-2.457)  | (-1.556) |
| Observations | 1,640     | 521       | 1,640     | 521       | 1,640 |
| R-squared | 0.041     | 0.119     | 0.042     | 0.120     | 0.040   |

Industry Controlled Controlled Controlled Controlled Controlled Controlled Controlled Controlled Controlled
Year       Controlled Controlled Controlled Controlled Controlled Controlled Controlled Controlled Controlled
F         2.729 2.672 2.811 2.703 2.669 2.674 2.729 2.672 2.759 2.671

9 估计期为窗口[-161, -11]。
表 13 列示了相应结果，从回归结果看前期市场反应较好的企业会受到撤单事件的传染效应影响，而前期市场反应较差的企业未受影响，这一结论与会计信息质量对 IPO 撤单传染效应的影响一致，说明对于前期表现较好的企业，投资者信任度较高，但撤单事件冲击了投资者原有的信任并引起质疑，导致这类企业受到传染效应的影响。

(2) 控制其他可能的影响因素。证监会此次针对 IPO 企业财务专项检查还涉及会计师事务所，也就是说会计师事务所可能是 IPO 撤单事件的的传染路径，因此我们控制“是否同一会计师事务所”。此外我们在模型中控制信息质量(abs_DTAC)、保荐机构市场占有率(RNpubfirm)、审计机构声誉(Bigten)以及 CEO 是否具有政府背景(CEO_gov_dum)等可能影响企业市场反应的指标。其中，保荐机构市场占有率 RNpubfirm 为保荐机构保荐的已上市公司占上市公司比例。CEO_gov_dum 为虚拟变量，当企业 2013 年 CEO 具有政府背景时取 1，否则为 0。回归结果与上述结果基本一致，见表 14。

### 表 14 IPO 撤单的传染效应-控制其他变量(CAR[-3, 3])

| VARIABLES  | (1)  | (2)  | (3)  | (4)  | (5)  |
|------------|-----|-----|-----|-----|-----|
| Sgiveup1c  | -0.001** | -0.009*** | -0.015 | -0.154** | -0.001** |
| RepuDown   | (-2.050) | (-2.881) | (-1.231) | (-2.050) | (-2.390) |
| Sgiveup1d  | 0.004*** | 0.004*** | 0.004*** | 0.004*** | 0.004*** |
| Size       | (2.962) | (2.918) | (2.989) | (2.962) | (2.936) |
| Rgiveup1c  | -0.006 | -0.006 | -0.005 | -0.006 | -0.006 |
| Lev12      | (-0.756) | (-0.869) | (-0.747) | (-0.756) | (-0.776) |
| Rgiveup1d  | -0.044* | -0.043* | -0.045** | -0.044* | -0.043* |
| ROA12      | (-1.948) | (-1.936) | (-1.996) | (-1.948) | (-1.933) |
| Beta       | 0.033*** | 0.033*** | 0.033*** | 0.033*** | 0.033*** |
| Agiveup1c  | (5.880) | (5.851) | (5.869) | (5.880) | (5.874) |
| Agiveup1d  | -0.005* | -0.003 | -0.005* | -0.005* | -0.004 |
| RNpubfirm  | 0.130 | 0.093 | 0.012 | 0.130 | 0.151 |
| (1.384) | (1.285) | (0.182) | (1.384) | (1.624) |
| abs_DTAC   | -0.000 | -0.000 | -0.000 | -0.000 | -0.000 |
| (0.062) | (-0.142) | (-0.100) | (-0.062) | (-0.089) |
| Bigten     | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| (0.098) | (0.139) | (0.008) | (0.098) | (0.115) |
| CEO_gov_dum| -0.002 | -0.002 | -0.002 | -0.002 | -0.002 |
| (0.549) | (-0.512) | (-0.599) | (-0.549) | (-0.524) |
| Constant   | -0.093*** | -0.087*** | -0.091*** | -0.093*** | -0.091*** |
| (3.275) | (-3.070) | (-3.208) | (-3.275) | (-3.196) |
| Observations | 2,032 | 2,032 | 2,032 | 2,032 | 2,032 |
| R-squared  | 0.069 | 0.071 | 0.068 | 0.069 | 0.070 |
| Industry   | Controlled | Controlled | Controlled | Controlled | Controlled |
| Year       | Controlled | Controlled | Controlled | Controlled | Controlled |
| F          | 5.144 | 5.296 | 5.045 | 5.144 | 5.200 |
### Panel B 分组检验-盈余管理程度

| VARIABLES | 程度低 | 程度高 | 程度低 | 程度高 | 程度低 | 程度高 | 程度低 | 程度高 | 程度低 | 程度高 |
|-----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Sgiveup1c | -0.001 | -0.001 |        |        |        |        |        |        |        |        |
|           | (-1.269) | (-1.302) |      |        |        |        |        |        |        |        |
| Sgiveup1d | -0.009* | -0.008* | (-1.898) | (-1.781) |        |        |        |        |        |        |
| Rgiveup1c | -0.001 | -0.024 | (-0.084) | (-1.390) |        |        |        |        |        |        |
| Rgiveup1d | -0.130 | -0.144 | (-1.269) | (-1.302) |        |        |        |        |        |        |
| Rank1c    | -0.001* | -0.001 | (-1.649) | (-1.446) |        |        |        |        |        |        |

### Panel C 分组检验-业绩变脸

| 变脸 | 变脸 | 不变脸 | 变脸 | 不变脸 | 变脸 | 不变脸 | 变脸 | 不变脸 |
|------|------|--------|------|--------|------|--------|------|--------|
| Sgiveup1c | 0.000 | -0.002*** | (0.569) | (-2.726) |        |        |        |        |
| Sgiveup1d | 0.002 | -0.016*** | (0.442) | (-3.556) |        |        |        |        |
| Rgiveup1c | 0.030* | -0.046*** | (1.720) | (-2.703) |        |        |        |        |
| Rgiveup1d | 0.063 | -0.278*** | (0.569) | (-2.726) |        |        |        |        |
| Rank1c | 0.000 | -0.002*** | (0.448) | (-3.079) |        |        |        |        |

### Panel D 分组检验-是否为十大

| 十大 | 非十大 | 十大 | 非十大 | 十大 | 非十大 | 十大 | 非十大 | 十大 | 非十大 |
|------|--------|------|--------|------|--------|------|--------|------|--------|
| Sgiveup1c | -0.001* | -0.001 | (-1.860) | (-1.033) |        |        |        |        |        |        |
| Sgiveup1d | -0.007* | -0.012** | (-1.692) | (-2.273) |        |        |        |        |        |        |
| Rgiveup1c | -0.020 | -0.007 | (-1.182) | (-0.390) |        |        |        |        |        |        |
| Rgiveup1d | -0.184* | -0.122 | (-1.860) | (-1.033) |        |        |        |        |        |        |
| Rank1c | -0.001* | -0.001 | (-1.867) | (-1.503) |        |        |        |        |        |        |

### Panel E 分组检验-分析师跟踪人数

| 跟踪少 | 跟踪多 | 跟踪少 | 跟踪多 | 跟踪少 | 跟踪多 | 跟踪少 | 跟踪多 | 跟踪少 | 跟踪多 |
|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Sgiveup1c | -0.000 | -0.001* | (-0.141) | (-1.915) |        |        |        |        |        |        |
| Sgiveup1d | -0.009* | -0.008* | (-1.781) | (-1.776) |        |        |        |        |        |        |
| Rgiveup1c | -0.015 | -0.005 | (-0.857) | (-0.279) |        |        |        |        |        |        |
| Rgiveup1d | -0.018 | -0.179* | (-0.141) | (-1.915) |        |        |        |        |        |        |
| Rank1c | -0.001 | -0.001* | (-0.665) | (-1.906) |        |        |        |        |        |        |
Panel F 分组检验-媒体报道次数

|          | 报道少 | 报道多 | 报道少 | 报道多 | 报道少 | 报道多 | 报道少 | 报道多 |
|----------|--------|--------|--------|--------|--------|--------|--------|--------|
| $S_{giveup1c}$ | -0.000 | -0.002** | (-0.778) | (-2.131) |
| $S_{giveup1d}$ | -0.006 | -0.015*** | (-1.404) | (-2.839) |
| $R_{giveup1c}$ | -0.012 | -0.027 | (-0.824) | (-1.344) |
| $R_{giveup1d}$ | -0.070 | -0.259** | (-0.778) | (-2.131) |
| $Rank1c$ | -0.001 | -0.002** | (-1.144) | (-2.285) |

Panel G 分组检验-前期市场表现

|          | 正面 | 负面 | 正面 | 负面 | 正面 | 负面 | 正面 | 负面 |
|----------|------|------|------|------|------|------|------|------|
| $S_{giveup1c}$ | -0.001 | -0.000 | (-1.516) | (-0.421) |
| $S_{giveup1d}$ | -0.009** | -0.006 | (-2.176) | (-1.080) |
| $R_{giveup1c}$ | -0.011 | -0.007 | (-0.739) | (-0.321) |
| $R_{giveup1d}$ | -0.133 | -0.061 | (-1.516) | (-0.421) |
| $Rank1c$ | -0.001* | -0.001 | |

（3）对于假设 2a、假设 2b 和假设 3，我们还采用不同窗口对上述回归结果进行检验。我们发现，所有窗口的回归结果与 [-3, 3] 窗口的结果基本一致。

（4）参照 Gleason et al.（2008）的做法，我们也只对关联企业组做了分析，回归结果基本一致但显著性有所降低。

五、 研究结论与启示

本文研究表明，IPO 企业撤单具有传染效应，而且保荐机构声誉受损越严重，上市企业会计信息质量越高，公司关注度越高，关联公司受到的传染越严重。但 IPO 企业撤单具有的传染性仅仅只是市场担忧情绪的体现，不能说明关联上市公司以及涉事保荐机构的质量存在问题，相反图 1 中 CAR 走势的两次反转不仅说明传染效应的存在，而且也说明这些涉事保荐机构及其保荐的已上市公司可能具有较好的质量或声誉。总体而言，本文对 IPO 企业撤单传染效应的探讨，为已有传染类文献提供了新的传染路径研究，并且一定程度上检验了证监会关于 IPO 程序改革的市场效果。本文结果表明，证监会此次财务核查程序的改革和监管力度的加大不仅对 IPO 企业和保荐机构起到了震慑力，对已上市的关联企业也有一定影响，这说明保荐机构对于企业上市前后具有持续的鉴证作用，企业为了确保上市顺利及上市后不受传染效应的影响，应当在上市时选择声誉和质量较好的保荐机构，这也就能从另一方面督促保荐机构提高专业鉴别能力并严格履行保荐职能。
本文的局限性在于：（1）虽然剔除了4月3日发布年报的样本以减少其他事件的影响，但未全面剔除事件日及附近期间的其他事件；（2）由于工作量较大，在进一步探讨媒体正面/负面报道时，我们并未采用文本分析方法，而是根据Solomon et al.（2014）的做法，采用事件前公司的超额回报率的正负衡量企业关注度正面或负面。这一做法的逻辑在于媒体报道/分析师报告的正面或负面会反映到股价上，而且相对于文本分析方法噪音更小，但不可否认文本分析法对媒体态度的识别会更为直观；（3）本文研究发现前期会计信息质量较高的企业所受传染效应越强，虽然这一结论与部分传染类文献一致，但与会计信息质量的治理理论可能有所冲突，未来可能的研究方向是进一步探讨是否有其他治理机制可以降低投资者对企业会计信息的信任危机；（4）我们参照既有市场反应文献未控制公司治理因素，但一个可行的逻辑是，好的公司治理可能会弱化IPO撤单的传染效应。

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