Torpedo Your Competition: Strategic Reporting and Peer Firm IPO[*]

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Abstract

A firm's initial public offering (IPO) generates negative externalities to its industry competitors. We show that to mitigate this threat, incumbent firms manage their earnings downwards when their industry peers file for IPO. The downward accruals reverse if there are no peers attempting an IPO. This effect is stronger if peers pose a bigger threat to the incumbents, if industries are more competitive or informationally opaque, if an industry leader has already initiated such actions, or if the incumbents are more long-term oriented. When incumbents engage in more aggressive downward earnings management, peer firms suffer from lower offer prices, raise smaller amounts of capital, and are more likely to withdraw from the offering; they also invest less, hoard more cash, and experience lower profitability post IPO. By contrast, incumbents benefit from improved operating performance. Our results highlight the role of strategic reporting on product market competition. Endogeneity of going-public activity and choice of proxies for earnings management and industry classifications do not appear to drive our findings.

Key words: Earnings management, product market competition, disclosure, initial public offerings

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1. Introduction

An initial public offering (IPO) is the most important milestone in a firm's life. By tapping a broad investor base and raising a large amount of capital, a firm can expand production capacity, pursue growth opportunities, gain a competitive edge against rivals, and survive its business environment (Draho 2004). Consequently, existing literature documents that the success of a firm's IPO hampers the performance of its industry competitors. In particular, incumbents experience negative stock market reaction, loss in market shares, and deterioration in operating performance around IPOs in their industries (Slovin, Sushka, and Ferraro 1995; Hsu, Reed, and Rocholl 2010; Chemmanur and He 2011; Chod and Lyandres 2011). While most of the literature focuses on the benefits accrued to IPO firms and the competitive effects they generate, there is little evidence on how and to what extent industry incumbents can mitigate the foreseeable threats imposed by their rivals' IPOs.

In this paper, we examine how firms strategically report their earnings in response to their peers' attempt for an IPO. We postulate that industry incumbents strategically manage their accruals downwards in order to curtail peers' capital-raising efforts.

Ex ante, the effectiveness of such earnings management is less clear. On the one hand, prior studies suggest that investors do not fully detect accrual-based earnings management (Sloan 1996; Xie 2001). In comparison to altering real productions or operations, managing accruals is more timely and flexible to implement, and possibly also less costly. More importantly, the pricing of a private firm's public offering relies less on firm-specific information, but more on industry prospective (Benveniste et al. 2003). All these give rise to the incentive of industrial rivals to

sabotage their peer's IPO attempt via strategic reporting. On the other hand, reporting unfavorable earnings news may make the IPO firm looks even more attractive to investors than their industry incumbents, offering more promising prospects and ensuring a successful IPO outcome.

Using a sample of quarterly earnings announcements by US firms from 1991 to 2014, we find that incumbent firms manage their earnings downwards when their industry peers attempt an IPO. Our results are robust to a variety of alternative specifications, including various controls for firm-specific characteristics and the use of alternative measures for earnings management and industry classifications.

Importantly, the downward discretionary accruals reverse in the following quarter when no peers file for an IPO. In addition, the extent of downward earnings management during a peer's IPO is more pronounced when the peer is more innovative and thus poses a bigger threat to the incumbents; if an industry is more informationally opaque, which makes the pricing of the IPO more uncertain; or if an industry has fierce product market competition, in which, as Darrough and Stoughton (1990) and Wagenhofer (1990) theorize, a successful IPO would have given the peer a greater competitive edge over its industry rivals. An incumbent is also likely to manage earnings downwards to a greater extent if it is more long-term oriented, and if an industry leader has already initiated such an action. When exploring potential mechanisms, we find that incumbents' strategic disclosure leads to a depressed P/E ratio. Since valuation multiple is a common benchmark used by investors and underwriters to help set the offer price, a lower P/E ratio can hint at a pessimistic prospect regarding the IPO firm. Taken together, these findings corroborate with our interpretation that product market competition motivates a firm to obstruct its industry peer's IPO efforts through strategic reporting.

The decision to go public can be endogenous. While our analysis focuses on incumbents' reporting practice *after* their peer files for IPO, thus by design, takes the peer's decision to go public as given, it is still possible that unobserved factors correlated with both downward earnings management and the peer's IPO filing may bias our findings. For instance, since IPOs tend to come in waves and these waves are industry specific, one may observe many peers going public during the peak of an IPO wave, which is subsequently correlated with a decline in incumbents' earnings performance due to diminishing growth opportunities in the industry post peak. Alternatively, incumbents may release bad earnings news following peers' IPO filing in anticipation of heightened product market competition. Another possible explanation is that, to discourage a peer's going-public decision, incumbents may have managed earnings upwards prior to the peer's filing for IPO; as a result, the observed negative accruals after the filing simply reflect a mechanical downward reversal rather than strategic reporting.

To mitigate these concerns, we perform a battery of robustness tests. First, all the tests include calendar quarter and industry fixed effects. Our results are also robust to the inclusion of interactions of quarter and industry fixed effects and when we falsely assign peer IPO activities two quarters ahead of an incumbent's current earnings announcement. Together with the findings of accrual reversals in the absence of peer IPO filings, a negative effect of peer IPO activities on incumbents' quarterly discretionary accruals cannot be interpreted to spuriously depend on industry shocks.

Second, we consider settings that affect the decision to go public and the likelihood of IPO completion, but are unlikely to be driving public firms' incentive to manage accruals downwards. We exploit the passage of the Jumpstart Our Business Startups (JOBS) Act, which relaxes the requirements for firms in selected industries such as biotech and pharmaceutical industries to speed

up their IPO process (Dambra, Field, and Gustafson, 2015). Alternatively, market conditions may facilitate or deter IPO activities. We thus explore market-wide fluctuations that are known to affect the success of an IPO (Benveniste et al. 2003; Bernstein 2015). Importantly, neither the enactment of the JOBS Act, nor the stock market performance, occurred in response to industry incumbents' downward earnings management.

In a difference-in-difference setting, we find that, by spurring more IPO activities in the biotech and pharmaceutical industries, downward earnings management is more aggressive in these two industries relative to other industries only after the passage of the JOBS Act. Similarly, the effort to manage earnings downwards during a peer firm's IPO is stronger in the presence of greater stock market volatility, which is known to generate higher uncertainty regarding the outcome of an IPO. When market conditions favor the completion of an IPO, the extent of incumbents' downward earnings management diminishes, as their peer's IPO is likely to succeed regardless. These tests provide causal inference for our findings and mitigate concerns that downward earnings management is due to anticipated negative competitive effect of the upcoming peer IPOs rather than a strategic attempt to negatively impact the IPOs.[2]

Lastly, we assess the economic consequences of incumbents' strategic reporting during a peer's IPO. When its incumbents engage in more aggressive downwards earnings management, a peer firm is more likely to withdraw its offerings, has a lower final offer price, and raises a smaller amount of proceeds, which potentially hampers its ability to grow after going public, limiting the extent of potential damage its IPO can impose upon industry rivals. We find that peer firms spend less on capital investment, have lower operating cash flows, and are less profitable after IPO if they experience more negative discretionary accruals by their incumbents during the going-public

[2] For this alternative explanation to hold, the downward earnings management should be more, instead of less, pronounced when the market conditions favor the IPOs and thus the competitive effective is stronger.

process. They thus hoard more cash, arguably to alleviate refinancing risk and the underinvestment problem (Harford, Klasa, and Maxwell 2014). By contrast, incumbents experience an improvement in operating performance when their strategic reporting helps mitigate the threat from their peers' IPO activities.

Our paper contributes to the literature examining the spillover effect from IPO activities. Most of the literature focuses on how going-public can negatively affect industry competitors' performance and valuations. For instance, incumbent firms experience negative stock reactions to IPOs in their industry, and positive reactions to their withdrawals (Slovin, Sushka, and Bendeck 1991; Slovin, Sushka, and Ferraro 1995; Hsu, Reed, and Rocholl 2010). A firm's IPO results in a smaller market share and worsening operating performance for its industry rivals (Chod and Lyandres 2011; Chemmanur and He 2011). We extend this line of research and show that incumbents can use strategic reporting to limit these adverse effects brought about by their peers' IPOs.

Our paper is also related to the literature studying strategic disclosure to deter product market competition. This line of the research is motivated by studies on information transfer (e.g., Foster 1981; Bowen, Castanias, and Daley 1983; Baginski 1987), which find that a firm's earnings announcement has a significant impact on the stock prices of other non-announcing industry peers. Such information transfer exists because industry peers' future expected cash flows are on average positively correlated. Thus, a firm's earnings information could change investors' perception of the industry's prospects. Consequently, Darrough and Stoughton (1990) and Wagenhofer (1990) theorize that firms restrain the product market threat through strategic reporting. In their models of an entry game, an incumbent's private information is valuable to both the financial market and potential competitors. Reporting favorable news increases the incumbent's market valuation. By

making the product market more attractive, however, it also induces entry by an opponent, compromising the incumbent's competitive position. In equilibrium, partial disclosure can arise in which the incumbent prefers reporting bad news and withholding good news so as to deter entry and prevent the loss in profits due to the increased competition. The incentive to disclose unfavorable information is particularly strong when the entry costs are low and the threat imposed by potential entrants is high.

Our paper provides direct empirical evidence consistent with their theoretical predictions that product market competition motivates strategic disclosure of unfavorable news. In this respect, our paper is related to Jones (1991), who shows that firms intentionally manage earnings downward to mislead the US International Trade Commission during the period of import relief investigations in order to thwart competition from foreign competitors, and to Godsell, Welker, and Zhang (2017), who document that EU firms engage in income-decreasing earnings management around the initiation of an antidumping investigation. Instead of influencing governmental policies, we show that firms use strategic reporting to mitigate the threat of rivals through discouraging their capital raising efforts. In constrast to Kim, Verdi, and Yost (2018), who find that acquirers strategically generate news intended to depress the target's stock price, we focus on mandatory disclosure and production competition as motive behind incumbent firms' strategic reporting.

The rest of the paper is organized as follows. Section 2 introduces the methodology and describes the data. Sections 3 and 4 present the empirical results. Section 5 concludes. Variable definitions are in the Appendix.

2. Methodology and Data

An IPO is not only probably the most important financing event, but also a crucial public information event in the life of a firm. A firm entering the public domain must provide for broad dissemination of information regarding its operation and prospects, and in return, it receives feedback from investors. The book-building theory predicts that an issuer conditions its offer price on information acquired through its book-building process (Benveniste and Spindt 1989). Following the IPO literature, we define the book-building phrase of the offering as the period between the registration date (when a firm files for an IPO and sets an indicative price and offer amount) and the offer date (when the firm sets the final offer price and proceeds to be listed in the secondary market).[3] A large body of empirical research focuses on revisions to indicative prices and finds evidence that firms acquire information from investors through their own book-building efforts. Negative feedback, for example, often leads to withdrawal of the offering or downward revision of the offer price, whereas positive feedback leads to an increase in the final offer price relative to the indicative price in the initial prospectus filed with the SEC (see, e.g., Hanley 1993; Cornelli and Goldreich 2001).

Investor beliefs about IPO firms, however, are more strongly influenced by industry conditions because there is relatively little firm-specific information on which investors can condition their beliefs at the firm's IPO stage (Benveniste, Busaba, and Wilhelm 2002; Wang, Winton, and Yu 2010).[4] In this respect, the incumbents' strategic reporting effort to depress their peers' capital-raising attempt can be particularly effective.

[3] In what follows, we use "booking-building period", "filing period", and "pre-offer period" interchangeably.

[4] In a broader scope of research setting, Shroff, Verdi and Yost (2017) show that the information environment of industry peers affects the cost of capital of related firms in the same industry, especially when there is less publicly available firm-specific information.

2.1 Regression Framework

We explore incumbent firms' reporting practice in response to their peers' IPO in the context of quarterly earnings releases. By focusing on mandated earnings disclosure, whose release dates are pre-determined, our empirical strategy is less likely to be subject to the endogeneity concern regarding the timing of public disclosure and the incomparability of information contents, which are common in voluntary disclosures and news releases. Examining a firm's strategic reporting at a quarterly frequency also offers two advantages. First, managers can exercise relatively greater discretion over expense recognition in interim quarters, which better captures the extent of strategic motives in earnings management. By contrast, annual reports are subject to more rigid rules and audit than interim reports, providing managers with relatively less discretion and fewer opportunities to manage earnings (Palepu 1988; Brown and Pinello 2007). Second, the duration of a pre-IPO filing period is typically short; in our sample, the median book-building period lasts 69 days. Deriving earnings management from quarterly instead of annual reporting more likely reflects incumbents' response to the recent peer IPO activities.

We construct two accrual-based proxies for earnings management and estimate the following regression model:

$$EM_{i,t} = \beta_0 + \beta_1 PeerIPO_{i,t} + \mathrm{B}_2\mathrm{X}_{i,t} + \epsilon_{i,t}$$

where $EM_{i,t}$ is firm i's earnings management in quarter t and $PeerIPO_{i,t}$ measures IPO activities by firm i's industry peers at the time of its earnings announcement in quarter t. An industry peer is classified based on the 3-digit SIC code.

Our primary dependent variable, "EM", is the performance-adjusted discretionary accruals following Kothari, Leone, and Wasley (2005). We focus on this measure of earnings management to better isolate the extent of downward earnings management coming from strategic motives

rather than being driven by poor operating performance. To further capture the downward nature of earnings management, we also employ a variation of "EM": "Downward EM" is set to "EM" if it is negative and zero otherwise.

We capture the intensive and extensive margins of the impact from peer IPOs using two proxies: "# of IPOs", calculated as the natural logarithm of one plus the number of peer firms that have filed for, but not completed, the IPO process at the time when an incumbent firm announces its quarterly earnings. "IPO Volume" is calculated as the natural logarithm of one plus the total amount of proceeds filed by these peers attempting for IPOs. These variables are set to zero if there is no peer firm filing for an IPO at the time of an incumbent's quarterly earnings announcement. Put differently, we restrict the event window to quarterly earnings announcement by an incumbent firm that falls into the book-building phrase of its industry peer.

We include control variables that may affect an incumbent's level of discretionary accruals (e.g., Kothari, Leone, and Wasley 2005; Zang 2012; Fang, Huang, and Karpoff 2016), such as firm size ("Size", calculated as the natural log of total assets at the end of the year), growth opportunities (captured by the book to market ratio), financial leverage ("Leverage", calculated as the ratio of total labilities to total assets), growth rate of sales revenue ("Sales Growth"), and cash flows ("Cash Flow", calculated as operating cash flows scaled by average total assets). We also control for industry-wide growth opportunities, which may simultaneously drive an incumbent's desire to manage earnings and a private peer's decision to file for an IPO (Pagano, Panetta, and Zingales 1998). Lastly, we include quarter fixed effects and 3-digit SIC industry fixed effects to control for cross-quarter and cross-industry differences in economic conditions. In subsection 3.4, we show that our main findings are robust to alternative measures of earnings management and industry classifications.

2.2 Sample Selection and Descriptive Statistics

We begin with a sample of non-financial and non-utility publicly listed US firms from the COMPUSTAT. The initial sample contains 721,013 firm-quarter observations from 1991 to 2014. We remove 133,585 observations with missing earnings announcement dates and 28,745 observations with missing values in quarterly cash flows. To ensure that the estimation of discretionary accruals is meaningful, we require each industry-year to have at least 15 observations. We further exclude 266,630 firm-quarter observations with missing information to calculate discretionary accruals, 23,819 observations with missing information on other financial variables, and 10,991 observations with negative book to market ratios. We next remove 87,250 observations of firms with a stock price less than $5 or a market value less than $50 million, since their valuation and share price have little impact on investors' perception of an industry. The final sample consists of 169,993 firm-quarter observations.

We obtain a sample of IPO firms from the Thomson Financial Securities Data Corporation (SDC) new issues database during the same time. We exclude from our sample ADRs, unit offerings, reverse LBOs, foreign issues, and REITs. To ensure that the peer firm's IPO is economically relevant and to reduce the influence of microcap stocks, we exclude offerings in which the offer price is less than $5 (Chemmanur and He 2011). The final sample contains 4,995 firms that went public in the U.S during the 1991-2014 period.

Table 1 Panel A summarizes the sample characteristics of incumbent firms. For the ease of interpretation, we report the number of peer IPOs and proceeds filed by peer IPO firms with and without the log form. The mean value of earnings management indicates that quarterly

discretionary accruals over total assets averages around -0.17%.[5] In an average industry-quarter, there are 2.03 firm filing for IPO with total proceeds of $151.55 million. An average firm has assets of $3,565.54 million, a leverage ratio of 46%, and quarterly sales growth rate of 6%.

Panel B of Table 1 describes the characteristics of IPO firms. An average IPO firm sets $12.43 per share offer price, representing 1% revision up from the initial filing price. It raises $87.37 million in proceeds, 3% more from the proceeds filed. About 55% of IPO firms are VC-backed and 22% of those that file for an IPO end up withdrawing from the offering. The median length of pre-IPO filing period (from the filing date to the final offer date) is 69 days. These numbers are in line with the existing literature (e.g., Lowry and Schwert 2002; Benveniste et al. 2003; Wang, Winton, and Yu 2010).

3. Empirical Results

3.1 Earnings Management during Peer Firm's IPO

Table 2 explores how incumbent firms manage their quarterly earnings in response to industry peers' IPO events. We observe a negative and significant coefficient associated with the number of peer firms attempting an IPO, as well as the amount of proceeds they intend to raise. This suggests that incumbents manage their earnings downwards during their industry peers' go-public stages.

The negative effect of upcoming peer IPOs on an incumbent firm's discretionary accruals holds for both measures of earnings management. It is also robust when we control for firm

[5] Our descriptive statistics of quarterly discretionary accruals is comparable to prior studies. For example, using a sample of quarterly observations from 1993 to 2005, Brown and Pinello (2007) report that the average discretionary accruals estimated based on modified Jones model is -0.004.

characteristics and to the inclusion of quarter fixed effects and industry fixed effects, indicating that time-specific or industry-specific shocks cannot drive our results.

In terms of economic magnitude, column 1 suggests that when "# of IPOs" increases by one standard deviation, which is equivalent to roughly 2.32 peer firms engaging in the going-public process at the time of an incumbent's quarterly earnings announcement, earnings management reduces an average incumbent firm's return on assets by approximately 12% (=0.84×-0.147%÷1%). If "IPO Volume" increases by one standard deviation (equivalent to $13 millions), earnings management reduces an average incumbent firm's return on assets by approximately 5% (=2.59×-0.018%÷1%). Given the sample mean of quarterly ROA being 1%, these numbers are economically significant.

To further validate that incumbents manage earnings downward in response to the upcoming capital raising activity of industry peers, rather than to unobserved industry- and time-specific trends or for mechanical reasons, we examine whether such behavior reverses in the absence of peer IPO activities. We augment the regression framework in Table 2 with "Post IPO Dummy", a dummy variable set to one if at least one industry peer has attempted an IPO in the previous quarter but no peers have filed for an IPO in the current quarter in which the incumbent firms release their quarterly earnings.

Columns 1 and 2 of Table 3 provide additional evidence on incumbents' strategic understatement of quarterly earnings. The coefficient for the post IPO dummy is positive and significant, suggesting that discretionary accruals are more positive when there are no peers filing for an IPO in comparison to the quarters that witness peer IPO activities. In columns 3 through 6, we consider the accrual reversals by taking into account the direct effect of peer IPOs and including "# of IPOs" and "IPO Volume". In these regressions, "Post IPO Dummy" is thus redefined as one

if at least one peer firm has filed for IPO in the previous quarter and zero otherwise. While the coefficients for "# of IPOs" and "IPO Volume" remain negative and significant, we always observe a positive effect, i.e., higher accruals, after peer IPO events. These results suggest that while the discretionary accruals become negative during the peer firms' going-public process, they reverse quickly in the following period only after these peers complete their IPOs.

3.2 Cross-sectional Analysis

3.2.1 Threat of IPO Peers

Our analysis so far provides evidence that incumbent firms engage in strategic reporting to undermine their peers' capital raising effort, as theorized in Darrough and Stoughton (1990) and Wagenhofer (1990). Darrough and Stoughton (1990) and Wagenhofer (1990) also highlight that the incentive to disclose unfavorable information is particularly strong when the threat imposed by potential entrants is high and when the entry costs are low. In this subsection, we validate how the extent of downwards earnings management varies with an IPO firm's ability to challenge the incumbents. In subsection 3.2.2, we consider the nature of product market competition.

We measure an IPO firm's capacity to pose potential threat with the amount of its R&D spending and the innovativeness of their products prior to the IPO. R&D investments and innovations allow IPO firms to upgrade product quality and differentiate their products from industry rivals; in turn, these firms might be better suited to endure competition and to survive. We augment the regression framework in Table 2 by interacting our measures for peer IPO activities ("# of IPOs" and "IPO Volume") with "R&D" and "Patents", respectively. "R&D" is the natural logarithm of one plus the average of peer firms' R&D expenditures in the year prior to their IPOs. "Patents" is defined as the natural logarithm of one plus the average number of patents

filed by (and eventually granted) peer firms over the three-year period before they file for an IPO (Kogan, Papanikolaou, and Stoffman 2017). The interaction term thus allows for a differential degree of incumbents' earnings management with different levels of potential threat from IPO peers.

Table 4 shows that the coefficient for the interaction term is always negative and significant. These results suggest that incumbents' downward earnings management becomes more aggressive if the upcoming IPO peer is more innovative or invests more in R&D, posing a bigger threat to its industry incumbents.

3.2.2 Industry Characteristics

The effort to understate earnings and the likelihood of success to do so can also hinge upon industry characteristics. For instance, manipulation is easier in industries with a higher degree of information asymmetry. The desire to sabotage peer firms' capital-raising efforts is also accentuated in more competitive industries (Darrough and Stoughton 1990; Wagenhofer 1990).

We consider an industry with high information asymmetry (a "High Info Asymmetry" industry) if the average of analyst forecast errors of all the firms in the industry falls above the sample median. We consider a firm as operating in a less competitive industry (i.e., a "High HHI" industry) if the industry's Herfindahl-Hirschman Index (based on firms' product market shares, Hoberg and Phillips 2010b) falls into the top tercile.

We then interact "# of IPOs" and "IPO Volume" variables with, respectively, an indicator variable for an industry of high information asymmetry, and an indicator variable for a high HHI industry. Panel A of Table 5 reveals that firms operating in industries with a higher degree of information asymmetry and higher product market competition manage their earnings downwards to a larger extent during their peers' IPO process.

An incumbent's industry structure may also affect the trade-off between the benefits and costs of its strategic reporting. For instance, when an industry leader initiates downward management in an effort to deter peer IPO activities, the cost for a follower to also report bad earnings news can be smaller, as the market is less likely to penalize the follower for its own "poor" performance but rather, more likely attribute bad earnings news to a pessimistic outlook of the industry. With an increasing likelihood of success to deter peers' capital raising effort and a declining cost of disclosing bad news, a follower incumbent is more incentivized to manage earnings downwards.

We explore this within-industry dynamics among incumbents in Panel B of Table 5. We consider an incumbent as an industry leader if, in a given industry-year, its sales falls into the top sample quartile. Accordingly, variables "Leader EM" and "Leader Downward EM" are set to an industry leader's "EM" and "Downward EM", respectively if, up to 30 days prior to an incumbent firm's quarterly earnings announcement, an industry leader has announced its quarterly earnings and there have been peers filing for but not completed IPOs. When there are more than one industry leaders announcing earnings during this period, we take the average. These two variables are set to zero if there are no peer IPOs during this pre-announcement 30 day window or if incumbents announcing quarterly earnings during this window are not industry leaders. We then interact these variables with "# of IPOs" and "IPO Volume".

Panel B of Table 5 reveals that while incumbents manage earnings downwards when there are peer firms filing for IPO, they do so to a greater extent if, up to 30 days prior to their quarterly earnings announcement, there is an industry leader who has managed earnings downwards. This suggests that the incentive for an incumbent to "sabotage" peer firms' IPO effort is stronger when

the cost of doing so is smaller, in this case, when an industry leader, rather than a follower, initiates the downward earnings management first.

3.2.3 Presence of Short-term Incentives

A long-standing view in corporate governance is that the presence of short-horizon investors, who typically hold a firm's stock for short periods of time and focus on short-term returns (Bushee 2001), can lead corporations to pursue short-term objectives at the expense of long-run strategic goals (Graham, Harvey, and Rajgopal 2005). While releasing unfavorable earnings news to mitigate the competition threat from upcoming IPO rivals can benefit the incumbent firm in the long run, it often generates immediate negative stock market reaction. This implies that doing so can be especially costly to managers who focus on short-term stock valuations instead of long-term profit maximization. As a result, firms that are short-term oriented are more reluctant to engage in downward earnings management.

We classify a firm to have a high short-term institutional ownership if the fraction of its shares held by transient institutional investors as defined in Bushee (1998 and 2001) is greater than the sample top tercile. A greater presence of short-horizon investors indicates more pressure on managers to avoid short-term share price underperformance. Next, we interact "# of IPOs" and "IPO Volume" variables with a dummy variable for high short-term institutional ownership ("High Short-term Ownership"). Table 6 reveals that firms to which transient investors have a larger stake manage their earnings downwards to a lesser extent during their peers' IPO process.

Overall, the above cross-sectional tests lend further credence to our inferences of the negative effect of upcoming peer firm IPOs on incumbents' discretionary accruals. While it is possible that some omitted variables drive the documented results, it is difficult to conceive of an omitted variable that biases our results equally in IPO firms that spend more or less in R&D, in

IPO firms that generate more or less patents, in incumbents that operate in more or less competitive product markets or in industries with high or low information asymmetry, and in incumbents having a high or low level of short-horizon institutional ownership. The differential effects of peer IPO activities on incumbent firms' discretionary accruals along these dimensions, together with the results on accruals reversals in Table 3, alleviate the identification concern to some extent, as our results are unlikely to be entirely driven by peer firms endogenously timing their IPO process in anticipation of incumbents' understated quarterly earnings.

3.3 A Potential Mechanism

One benchmark that investors often consider when pricing an IPO firm is its peers' valuation multiples, such as price-to-earnings (P/E) ratios. By managing earnings downwards and reporting poor earnings news, incumbents may be able to sabotage a peer's capital raising efforts with a low P/E ratio, misleading investors with a pessimistic prospect of the IPO firm.

To provide evidence on this potential mechanism, we explore how strategic reporting affects incumbents' P/E ratios during their peers' IPO process. We compute the change in an incumbent's P/E ratios over the $[t-5, t+5]$ window surrounding its quarterly earnings announcement. Specifically, P/E ratios at day $t-5$ and day $(t+5)$ are calculated, respectively, as the stock price at day $t-5$ divided by earnings per share of the previous quarter, and the stock price at day $t+5$, divided by earnings per share of current quarter.

Columns 1-2 of Table 7 reveal that the incumbent's P/E ratio decreases if there are industry peers that have filed but not completed IPOs at the time of its earnings announcement. In columns 3-4, we control for changes in firm-specific characteristics, such as changes in firm size, leverage, sales growth and cash flow, from previous quarter to current quarter, that may explain a decline in

valuation multiples. Since by construction, the regression absorbs industry fixed effects, we include only quarter fixed effects for this set of analyses. In columns 5-6, we include, additionally, the change in industry growth opportunities, as measured by the change in industry book to market ratio from previous quarter to current quarter.

Overall, the findings in Table 7 suggest that incumbents' strategic disclosure leads to a depressed valuation multiple. Since P/E ratio is a common benchmark used by investors and underwriters to help set the offer price, a lower P/E ratio can hint at a pessimistic prospect about the IPO firm. This sheds light on a mechanism through which incumbents' downwards earnings management can affect the success of their peer's IPO.

3.4 Robustness

3.4.1 Alternative Definitions of Industry Peers and Earnings Management

In the main analysis, we define an industry peer based on the firm's 3-digit SIC code. We now check the robustness of our baseline results using several alternative industry classifications. In columns 1-4 of Table 8, a peer firm is defined according to Hoberg and Phillips' (2010b) industry classifications, which are based on firm pairwise similarity scores from text analysis of firm 10K product descriptions. In columns 5-8, we consider Fama-French 48 industries. In columns 9-12, we classify a peer firm using its 4-digit SIC code. From Table 8, we find no evidence that our findings depend on the way that we classify an industry peer.

Our primary measure for earnings management is based on the Kothari-Leone-Wasley (2005) performance-adjusted discretionary accruals. We do so in order to explicitly account for the extent of earnings management arising from firm's performance, which is especially crucial since we focus on downward earnings management. In Table 9, we re-estimate the baseline

regressions using alternative proxies for earnings management. In columns 1-2, we calculate the Dechow-Sloan-Sweeney (1996) version of discretionary accrual-based earnings management in a modified Jones (1991) model. To better reflect the nature of earnings understatement, we also estimate the likelihood that a firm would report income-decreasing discretionary accruals (columns 3-4) and the likelihood that a firm would report earnings loss (columns 5-6) (Burgstahler and Dichev 1997). Lastly, we measure earnings management with the degree of announced earnings exceeding analyst consensus forecast (columns 7-8) following Degeorge, Patel, and Zeckhauser (1999). It is worth noting that the last two proxies for earnings management (columns 5-8) do not depend on accruals.

Table 9 indicates that our findings are robust to different proxies for earnings management. Incumbent firms manage discretionary accruals downwards after their peers file for IPOs. They are more likely to report losses, less likely to meet or just beat analyst earnings forecasts, and more likely to disclose negative earnings news.

3.4.2 Endogeneity of Going-Public Activity

One concern is that both a peer firm's decision to go public and the extent of earnings management by incumbent firms can be endogenous. For example, market and industry conditions not only encourage or deter IPO activities, but also simultaneously affect the way incumbent firms manage their earnings. This concern is less relevant in our setting because we consider incumbents' earnings management *after* a peer files for IPO. By design, our analysis takes a peer's decision to go public as given. However, to mitigate any remaining doubt for endogeneity, we perform two sets of tests.

Our first test exploits the passage of the Jumpstart Our Business Startups Act (JOBS Act) on April 12, 2012, a law intended to encourage funding of small businesses in the United States

by easing many of the country's securities regulations. Dambra, Field, and Gustafson (2015) show that the enactment of the JOBS Act disproportionally increases IPO activities in biotech and pharmaceutical industries relative to other industries and in comparison to IPO activities in these two industries prior to the JOBS Act. In the context of our analysis, the JOBS Act particularly spurs IPO activities in biotech and pharmaceutical industries relative to other industries. However, it is not designed to cater to earnings management by companies that are already publicly traded.

In a difference-in-difference setting, we estimate whether incumbents manage earnings downward more aggressively post JOBS Act in the biotech and pharmaceutical industries as compared to other industries and to IPO activities prior to the JOBS Act. The dummy variable for post JOBS Act is set to one if a quarterly earnings announcement occurs after April 12, 2012. Biotech and pharmaceutical industries are defined as in Dambra, Field, and Gustafson (2015).[6]

Panel A of Table 10 shows that the coefficient for the interaction between the dummy variable for biotech and pharmaceutical industries and the post JOBS Act dummy is negative and significant. Responding to an exogenous increase in IPO activities in the biotech and pharmaceutical industries brought about by the JOBS Act, incumbents' quarterly discretionary accruals in these two industries become more negative after the enactment in comparison to before the JOBS Act and to other industries.

In the second set of tests, we explore market and industry conditions that affect the IPO process but are less likely to be related to downward earnings management. Benveniste et al. (2003) provide a rationale for the hot and cold IPO markets and show that the decision to go public and

[6] Specifically, the dummy for biotech/pharmaceutical industries is set to one if a firm's Global Industry Classification Standard (GICS) code is 352010, or belongs to #13 of the Fama-French 49 Industries (Pharmaceutical Products). The #13 Fama-French 49 Industry consists of the following 4-digit SIC industries: 2830-2830 Drugs; 2831-2831 Biological products; 2833-2833 Medicinal chemicals; 2834-2834 Pharmaceutical preparations; 2835-2835 In vitro, in vivo diagnostics; and 2836-2836 Biological products (except diagnostics).

the likelihood of completion depend on market conditions and industry prospects. When the market is volatile, it becomes more difficult for investors to evaluate the likelihood of a successful offering. In the context of our analysis, this gives rise to a greater incentive for incumbents to manipulate earnings downward.

In a difference-in-difference test, we interact the market volatility, measured by the VIX in the month of earnings announcement, with the two proxies for peer IPO activities. Columns 1-4 of Table 10 Panel B show that incumbents manage earnings downwards to a greater extent during the peer firms' going-public process when the market volatility is high, captured by high VIX index.

Bernstein (2015) finds that Nasdaq return fluctuation does not affect IPO filing, but does influence its completion. Specifically, when Nasdaq return is very high, a peer is likely to complete the offering regardless, making it difficult for incumbents to deter its IPO. Managing earnings downward during a hot market period also becomes more costly for the incumbent firms. Therefore, we expect that downward earnings management is less likely when there is a run-up in Nasdaq return.

In the same vein, we interact the two-month cumulative Nasdaq return up to the date of earnings announcement with the number of IPOs and with IPO volume, respectively. Columns 5-8 of Table 10 Panel B indicate that when Nasdaq return is high, thus favoring the success of IPO completion, the incentive for downward earnings management is mitigated, as doing so becomes too costly to the incumbents while the deterrence effect is minimal during a hot market.

3.4.3 Timing of Accrual-Based Earnings Management

One concern is that peer IPO activities may occur during the peak of an IPO wave. This means that incumbents' performance goes down subsequently, which explains the release of

unfavorable earnings news. While our findings in accrual reversal dispel this cause, to further mitigate the concern that industry shocks simultaneous affect IPO activities and incumbents' earnings performance, we re-estimate our main results in Table 2 including the interactions of industry and quarter fixed effects.

Columns 1-4 of Table 11 Panel A show that our findings are invariant when we control for interaction of industry and quarter effects. Therefore, a negative effect of peers' going-public activities in the same industry as the incumbent firm at the time of its earnings announcement could not be interpreted as driven by industry shocks.

In columns 5-8 of Table 11 Panel A, we re-estimate our baseline regressions using operating profit instead of net income to calculate earnings management. In comparison to net income, which already reflects both operating items and non-operating items (e.g., extraordinary items and assets write-downs), operating profit is less affected by such non-operating items. Our results remain robust using this alternative measure.

Lastly, we perform a falsification test, leading both of our peer IPO variables by two quarters. Specifically, "# of IPOs (t+2)" is the number of peers filing for IPO two quarters ahead of an incumbent firm's current quarterly earnings announcement, and "IPO Volume (t+2)" is the total proceeds filed by peer files attempting for IPOs two quarters ahead. Since it is difficult to predict peer firms' future IPO activities, an incumbent's strategic reporting should respond only to the contemporaneous IPO activities instead of future ones. If instead, industry conditions such as IPO waves or market fluctuations simultaneously affect the peer firms' going-public process and incumbent firms' downward earnings management, then current quarterly earnings management should be linked to future IPO activities as well.

Table 11 Panel B suggests otherwise. Most of future IPO volume and numbers are insignificantly related to current quarter earnings management. If anything, sometimes the coefficient is positive, rather than negative. Regardless, the current quarter's peer IPO activities continue to be negatively associated with incumbents' earnings management.

Overall, while it is never possible to provide a statistical demonstration that the dynamics of industry-wide conditions do not drive the estimates, the tests we perform, along with the results on accruals reversals, corroborate with our interpretation of strategic reporting to deter product market competition.

4. The Consequences of Strategic Reporting

4.1 The Real Effect on Peer IPOs

In this section, we examine whether the incumbents' effort to deter a peer's IPO event has real impact. We start with various measures for the success of an IPO event. If incumbents' strategic reporting indeed influences how investors and underwriters perceive the offer, then we should observe a lower final offer price amid the more aggressive downwards earnings management by incumbents during an IPO firm's filing period. Since we focus on the quarterly earnings announced after the peer files for an IPO and thus already decides on the initial range of intended price, a lower final offer price indicates a lower upward offer price revision, calculated as the percentage change of the final offer price from the mid-point of the initial filing range. Alternatively, in order to raise the desired amount of capital, an IPO firm may compensate for the lower offer price by issuing more shares. We thus also compute "Proceeds Revision", calculated as the percentage change of the final proceeds offered from the initial proceeds filed.

The incumbents' reporting tactics may create more noise in the process of pricing the IPO firm. As a result, uncertainty surrounding the likelihood of a successful IPO can force the peer firm to amend its initial filing more frequently. We capture this uncertainty about the issuing firm' s prospective with "Frequency of Amendments", calculated as the natural logarithm of one plus the number of amendment filings during the pre-offer period. Lastly, a peer can withdraw from the offering if the likelihood of a successful IPO is dim.

In Table 12, we estimate how the extent of incumbents' earnings management during a peer's book-building period affects the outcome of its public offering. The unit of analysis is IPO firm. "Pre-IPO Industry EM" is the average quarterly earnings management by incumbent firms in the same industry during the filing period of a peer's IPO. We control for factors known in the IPO literature that affect IPO pricing. It is evident that when incumbents manage earnings downwards more aggressively during the peer's pre-IPO filing period, the peer suffers a smaller offer price revision, raises a smaller amount of capital, amends its filings more frequently, and has a higher probability of withdrawal.

Bhattacharya et al. (2015) show that the first three years after IPO are crucial to a firm's long-term survival. This implies that the inability for a peer to raise the desired amount of capital puts a limit on how fast it can grow and expand during this critical time, dampening the chance of its survival and the extent of the threat its IPO poses to the incumbents. We therefore also study how peer firms exposed to different degrees of incumbents' earnings management during their pre-IPO periods perform differently post IPO.

Table 13 provides evidence consistent with that the inability to raise sufficient capital limit peers' post IPO expansion. Peer firms experiencing more aggressive downward earnings management by industry incumbents during their pre-offer periods spend less in capital

investments during the three-year period after going public, in comparison to those whose industry incumbents manage earnings less. They also suffer from lower cash flows and profitability. As a result, they hoard more cash, arguably to mitigate refinancing risk and the underinvestment problem (Harford, Klasa, and Maxwell 2014).[7]

4.2 Extensions

In Darrough and Stoughton (1990) and Wagenhofer (1990), reporting bad news (partial disclosure) arises in equilibrium when the incumbent trades off the benefit from deterring the product market entry with the cost of a declining market valuation. The findings in subsection 4.1 suggest that the incumbents can potentially recoup the costs of a lower stock price reaction by destroying opponents' capital raising efforts, thus preventing the potential operating loss due to an otherwise heightened product market competition.

In this subsection, we examine whether an incumbent's performance can directly benefit from mitigating the threat of opponents' IPO. In columns 1-2 of Table 14, we estimate how an incumbent's profitability, measured by its ROA, improves after sabotaging its peers' IPO activities. Specifically, for incumbent firm i in year t, we include "# of completed IPOs (t-1)", calculated as the natural logarithm of one plus the number of i's peers that have completed IPO in year $t-1$, as well as its interaction with variable "Pre-IPO Industry EM of completed IPOs (t-1)", calculated as the average of "Pre-IPO Industry EM" of all of i's peers that have completed an IPO in year $t-1$. Since an IPO firm eventually will become an industry incumbent, in light of the findings in subsection 4.1 and Bhattacharya et al. (2015), for this set of analysis, we exclude firm-year observations up to three years after a firm's IPO from our sample of COMPUSTAT firms.

[7] Firms that had less successful IPOs are likely more concerned about the refinancing risk.

Columns 1-2 of Table 14 report the OLS results. To mitigate the concern that industry and firm specific shocks or omitted variables drive our findings, we control for industry and year fixed effects in column 1. In column 2, we replace industry fixed effects with firm fixed effects.

Table 14 shows that "# of completed IPOs (t-1)" is always negatively and significantly related to an incumbent's profitability, confirming the findings in the existing literature that IPO events hamper industry rivals. Importantly, the interaction, "# of completed IPOs (t-1)" × "Pre-IPO Industry EM of completed IPOs (t-1)", is negative and significant, suggesting that this adverse externality is mitigated when incumbents engage in more aggressive downward earnings management at the time of their peers' IPO filing.

One concern is that the accrual reversal explains higher profitability following peer IPOs, instead of incumbents benefiting from strategic reporting to depress rivals' capital raising efforts. To rule out the possibility that the findings are mechanical, we re-estimate the tests in columns 1-2, replacing ROA with cash flow as the dependent variable. The results in columns 3-4 of Table 14 corroborate with our interpretation that incumbents' strategic reporting mitigates the negative externalities of IPOs. While peer firms' IPO activities lead to lower cash flows for the industry incumbents, this effect is reduced when the incumbents exert more aggressive downward earnings management efforts during their rivals' IPO filing stage.

In Table 15, we also explore how substantial the cost to an incumbent's market valuation due to its downward earnings management can be. If firms engage in strategic reporting only during the time of peer IPO activities, which are unlikely to occur continuously throughout the year, the valuation damage to both shareholders and managers may not be persistent.

We estimate the stock market reaction over a two-day [0,1] event window surrounding a quarterly earnings announcement, depending on whether or not there are peer IPO activities. Table

15 shows that while an incumbent firm experiences adverse market reaction from reporting unfavorable information during its peers' going-public process, the price reaction becomes positive post peers' IPOs. Since the downward earnings management reverses when there is no peer filing for an IPO (Table 3), this test suggests that the cost of releasing bad earnings news to deter product market threat can be limited.

The cost of downward earnings management may also vary with the industry structure and the stages of the IPO wave. For instance, at the beginning of an IPO wave, there are relatively few public firms, and earnings news may still convey more firm-specific rather than industry-specific information. With fewer incumbents to share the cost, achieving the deterrence effect can be costly. During the middle of an IPO wave, the cost of reporting unfavorable earnings news can be shared among publicly traded companies while investors and industry rivals are more likely to interpret bad earnings news as an indication of dimming industry prospect rather than poor firm-specific performance. At the end of an IPO wave, with a sufficiently large number of publicly traded companies in an industry, the coordination cost among public firms to torpedo rivals' IPOs may be large enough to exceed the cost-sharing benefit. With very few firms remaining private (potentially going for public later), the benefit of deterring their capital-raising attempt may be small. Therefore, we postulate a hump shaped trend in the extent of earnings management depending on the stage in an IPO wave.

To consider the possibility that the degree of an incumbent's earnings management depends on the position in an IPO wave, we employ a spline-like framework. A spline specification allows the slope coefficient to vary with different levels of industry-specific IPO activities. Note that a current industry incumbent is an IPO firm in the past. Identifying the stage of the IPO wave thus depends not only on the number of firms filing for an IPO, but also on the number of

incumbents already publicly traded in an industry. Put differently, examining the number of IPOs alone does not completely describe the IPO wave activities: a smaller number of firms filing for public offering may indicate the beginning of an IPO wave, in which case there exist very few incumbents. It could equally suggest the tail of an IPO wave, in which case most of the firms in an industry have already gone public, leaving very few private firms in the industry queuing for an IPO.

We capture the industry dynamics with two variables: the number of publicly traded firms in an industry at the time, and the number of firms that have gone public in the past 12 months. We then interact "# of IPOs" with the tercile splines based on these two variables. The first (third) tercile corresponds to the smallest (largest) number of incumbents in an industry or number of firms that have gone public in an industry in the previous 12 months.

Importantly, the relatively middle position of an IPO wave is described by the interaction term "# of IPOs" × "Spline 3", whether or not it is defined based on the number of firms already publicly traded in an industry, or based on the number of IPOs completed in the past 12 months. This is the case when there are many firms that have already gone public, but at the same time, more private firms are filing for IPOs.

Table 16 reports the results from the spline estimation. It is worth noting that the interaction between "# of IPOs" and spline 3 is always negative and significant. This suggests that when there are already many firms that have gone public and more firms are filing for IPOs—indicating a middle of an IPO wave, the degree of downward earnings management is the most significant.

5. Conclusion

A firm's initial public offering generates negative externalities to its industry rivals, threatening their competitive edge and depressing their operating performance. In this paper, we document evidence that incumbent firms engage in strategic reporting to neutralize heightened market competition brought about by their peers' IPO activities. In particular, incumbents manage earnings downwards when their industry peer files for an IPO. The downward discretionary accruals reverse later when there is no industry peer attempting an IPO. This effect is stronger when IPO peers pose a bigger threat to the incumbents, when an industry is more competitive or informationally opaque, and when incumbents are more long-term focused. The downward earnings management leads to a decline in valuation multiples during the period of earnings announcement, presumably dampening investors' demand for the shares of the IPO firm.

As a result, IPO peers suffer from a lower final offer price, raise a smaller amount of capital, make more frequent amendments in order to gauge the offer price, and are more likely to withdraw from the offering. Post IPO, they invest less, hoard more cash, and experience lower performance when their industry incumbents have engaged in more aggressive downward earnings management during their going-public phases. By contrast, incumbents benefit from strategic reporting with improved operating performance. Our findings highlight that strategic disclosure serves as a viable tool to deter entry of competitors.

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Appendix: Variable Definitions

Variable	Definition and Data Source
# of IPOs	Natural logarithm of one plus the number of industry peers that have filed but not completed an IPO when the firm announces its quarterly earnings. This variable is set to zero if there is no peer firm filing for IPO at the time of an incumbnet's quarterly earnings announcement. Winsorized at the 1% and 99% levels. An industry peer firm is defined based on the 3-digit SIC code. Sources: SDC and COMPUSTAT.
Big 4 Auditor	A dummy variable equal to one if an IPO firm hires a Big 4 auditor, and zero otherwise. Source: COMPUSTAT.
Bio/Pharmaceutical	A dummy variable equal to one if a firm belongs to the biotech or pharmaceutical industry as in Dambra, Field, and Gustafson (2015), and zero otherwise. Source: Dambra, Field, and Gustafson (2015).
CAPEX	An IPO firm's annual capital expenditure scaled by average total assets. Winsorized at the 1% and 99% levels. Sources: COMPUSTAT and SDC.
Cash Flow	Operating cash flows scaled by average total assets, multiplied by 100. Source: COMPUSTAT.
Cash Holding	Cash and cash equivalent scaled by average total assets. Source: COMPUSTAT.
Dividend	A dummy variable equal to one if an IPO firm pays dividend after going public, and zero otherwise. Source: COMPUSTAT.
Downward EM	A variable set to EM if EM is negative, and zero if EM is zero or positive. Source: IBES.
EM	Kothari, Leone, and Wasley's (2005) performance-adjusted modified Jones model measure of discretionary accruals, constructed as the residual of the regression model $\frac{TACC_{it}}{TA_{it}} = \varphi_0 + \varphi_1 \frac{1}{TA_{it}} + \varphi_2 \frac{\Delta REV_{it} - \Delta REC_{it}}{TA_{it}} + \varphi_3 \frac{PPE_{it}}{TA_{it}} + \varphi_4 \frac{IB_{it}}{TA_{it}} + e_{it}$ estimated for each industry and quarter, multiplied by 100. For incumbent firm i in quarter t, $TACC_{it}$ is the total accruals defined as the difference between net income and cash flows from operations; ΔREV_{it} is the change in revenue; ΔREC_{it} is the change in receivables from quarter $t-1$ to quarter t; PPE_{it} is the gross property, plant and equipment; IB_{it} is income before extra-ordinary items; TA_{it} is the average total assets. We require each industry-quarter to have at least 15 firm-quarter observations, and exclude firms with quarter-average total assets less than $10 million. Industry classification is based on 2-digit SIC codes. Source: COMPUSTAT.
Filing Period Duration	Natural logarithm of one plus the number of days between initial filing date and final offer date. Winsorized at the 1% and 99% levels. Source: SDC.
Frequency of Amendments	Natural logarithm of one plus the number of amendment filings during the pre-offer filing period. Winsorized at the 1% and 99% levels. Source: SDC.

High HHI	A dummy variable equal to one if an industry-year's Herfindahl-Hirschman Index (HHI) falls into the top sample tercile, and zero otherwise. We follow Hoberg and Philips (2010a) and compute a revenue-weighted HHI for each industry-year. Source: COMPUSTAT.
High Info Asymmetry	A dummy variable equal to one if the average of analyst forecast errors of an industry-year falls above the sample median, and zero otherwise. Source: IBES.
High Short-term Ownership	A dummy variable equal to one if the fraction of a firm's shares held by transient institutional investors is greater than sample top tercile, and zero otherwise. Transient investors are identified following Bushee's (1998 and 2001) classification of 13F investors. Source: 13F and Bushee's Website.
High Underwriter Reputation	A dummy variable equal to one if an IPO firm's underwriter ranking exceeds 8. Source: Jay Ritter's website.
Industry Book to Market	The average of book to market ratios of public firms in an industry. Source: COMPUSTAT.
IPO Volume	Natural logarithm of one plus the sum of proceeds filed by industry peers at the time when an incumbent firm announces its quarterly earnings. This variable is set to zero if there is no peer firm filing for IPO at the time of quarterly earnings announcement. Winsorized at the 1% and 99% levels. An industry peer firm is defined based on the 3-digit SIC code. Sources: SDC and COMPUSTAT.
Leverage	Total liabilities divided by total assets. Winsorized at the 1% and 99% levels. Source: COMPUSTAT.
Meet or Just Beat Analyst Forecast	A dummy variable equal to one if the difference between the firm's actual quarterly earnings and the average of analyst forecasted earnings is within the range of zero and one cent, and zero otherwise. Source: COMPUSTAT.
MJEM	Dechow, Sloan, and Sweeney's (1996) modified Jones model measure of discretionary accruals, constructed as the residual of the regression model $\frac{TACC_{it}}{TA_{it}} = \varphi_0 + \varphi_1 \frac{1}{TA_{it}} + \varphi_2 \frac{\Delta REV_{it} - \Delta REC_{it}}{TA_{it}} + \varphi_3 \frac{PPE_{it}}{TA_{it}} + e_{it}$ estimated for each industry and quarter, multiplied by 100. For incumbent firm i in quarter t, $TACC_{it}$ is the total accruals defined as the difference between net income and cash flows from operations; ΔREV_{it} is the change in revenue; ΔREC_{it} is the change in receivables from quarter $t-1$ to quarter t; PPE_{it} is the gross property, plant and equipment; TA_{it} is the average total assets. We require each industry-quarter to have at least 15 firm-quarter observations, and exclude firms with quarter-average total assets less than \$10 million. Industry classification is based on 2-digit SIC code. Source: COMPUSTAT.
Nasdaq Return	The cumulative Nasdaq return over two months prior to the firm's quarterly earnings announcement. Winsorized at the 1% and 99% levels. Source: CRSP.

Offer Price Revision	The final offer price divided by the mid-point of the price range at the initial filing date, minus one. Winsorized at the 1% and 99% levels. Source: SDC.
Patents	The natural logarithm of one plus the average number of patents filed by peer firms over the three-year period before they file for IPO. Winsorized at the 1% and 99% levels. Sources: SDC and Kogan, Papanikolaou, and Soffman (2017).
Pre-IPO Industry EM	The average of EM of firms operating in the same 3-digit SIC industry as the IPO firm during its filing period. Winsorized at the 1% and 99% levels. Source: COMPUSTAT and SDC.
Pre-IPO Market Return	The cumulative CRSP value-weighted return during the IPO firm's filing period. Winsorized at the 1% and 99% levels. Sources: CRSP and SDC.
Pre-IPO Industry Book to Market	The average of book to market ratio of firms operating in the same 3-digit SIC industry as the IPO firm during its filing period. Winsorized at the 1% and 99% levels. Source: COMPUSTAT and SDC.
Pre-IPO Industry Size	The average of total assets of firms operating in the same 3-digit SIC industry as the IPO firm during its filing period. Winsorized at the 1% and 99% levels. Source: COMPUSTAT and SDC.
Pre-IPO Industry Sales Growth	The average of sales growth of firms operating in the same 3-digit SIC industry as the IPO firm during its filing period. Winsorized at the 1% and 99% levels. Source: COMPUSTAT and SDC.
Pre-IPO Industry Cash Flow	The average of operating cash flows (scaled by average total assets) of firms operating in the same 3-digit SIC industry as the IPO firm during its filing period. Winsorized at the 1% and 99% levels. Source: COMPUSTAT and SDC.
Pre-IPO Industry Leverage	The average of operating cash flows (scaled by average total assets) of firms operating in the same 3-digit SIC industry as the IPO firm during its filing period. Winsorized at the 1% and 99% levels. Source: COMPUSTAT and SDC.
Proceeds	Natural logarithm of total proceeds filed by the IPO firm. Winsorized at the 1% and 99% levels. Source: SDC.
Proceeds Revision	The final proceeds offered divided by the proceeds filed, minus one. Winsorized at the 1% and 99% levels. Source: SDC.
Post JOBS Act	A dummy variable equal to one if the firm's quarterly earnings announcement occurs after April 5th, 2012, the enactment of the Jumpstart Our Business Startups Act (JOBS Act), and zero otherwise.
Post IPO Dummy	A dummy variable equal to one if at least one industry peer firm has attempted for an IPO in the previous quarter but no peer firms file for IPO in the contemporaneous quarter when the firm announces its quarterly earnings, and zero otherwise. Sources: SDC and IBES.
R&D	The natural logarithm of one plus the average of peer firms' R&D expenditures in the year prior to their IPOs. Winsorized at the 1% and 99% levels. Source: SDC and COMPUSTAT.

Report Earnings Loss	A dummy variable equal to one if the firm's quarterly income before extra-ordinary items is negative, and zero otherwise. Source: COMPUSTAT.
Report Income-Decreasing Discretionary Accruals	A dummy variable equal to one if there exists income-decreasing discretionary accruals, and zero otherwise. Source: COMPUSTAT.
ROA	Income before extra-ordinary items scaled by average total assets. Source: COMPUSTAT.
Sales Growth	Percentage change in sales revenue. Winsorized at the 1% and 99% levels. Source: COMPUSTAT
Size	Natural logarithm of total assets. Winsorized at the 1% and 99% levels. Source: COMPUSTAT.
VC Back	A dummy variable equal to one if the IPO firm receives VC backing. Source: SDC.

Table 1: Descriptive Statistics

Panel A: Incumbent Firm Characteristics

The sample period is 1991-2014. The unit of analysis is firm-quarter observations. Variable description and data sources are in the Appendix.

Variable	# of obs.	Mean	Median	Std. Dev.
EM	169,993	-0.17	-0.16	3.70
Downward EM	169,993	-1.47	-0.16	2.96
# of IPOs (in log form)	169,993	0.52	0.00	0.84
# of IPOs	169,993	2.03	0.00	5.94
IPO Volume (in log form)	169,993	1.80	0.00	2.59
IPO Volume ($MM)	169,993	151.55	0.00	486.09
Size	169,993	6.33	6.17	1.74
Total Assets ($MM)	169,993	3,565.54	18,831.39	476.66
Book to Market	169,993	0.50	0.42	0.35
Leverage	169,993	0.46	0.47	0.21
Sales Growth	169,993	0.06	0.03	0.25
Cash Flow	169,993	2.30	2.50	4.67
Industry Book to Market	169,993	0.50	0.48	0.18

Panel B: IPO Characteristics

The sample period is 1991-2014. The unit of analysis is IPO firm observations. Variable description and data sources are in the Appendix.

Variable	# of obs.	Mean	Median	Std. Dev.
Offer Price	3,776	12.43	12.00	5.31
Proceeds ($MM)	3,776	87.37	40.00	459.56
Offer Price Revision	3,776	0.01	0.00	0.18
Proceeds Revision	3,776	0.03	0.00	0.37
# of Amendments	3,776	3.01	3.00	2.20
IPO Withdraw	4,877	0.22	0.00	0.42
Filing Period Duration (# of days)	3,776	95.63	69.00	122.09
Underwriter Rank	3,776	5.44	7.00	3.57
VC Back	3,776	0.55	1.00	0.50
Pre-Offer Market Return	3,776	0.04	0.03	0.06

Table 2: Earnings Management during Peer Firms' IPO

The dependent variable is "EM" in columns 1 and 2, and "Downward EM" in columns 3 and 4. The unit of analysis is firm-quarter observations. "# of IPOs" ("IPO Volume") is the natural logarithm of one plus the number of companies (one plus the sum of proceeds filed by companies) operating in the same industry that have filed for, but not completed, IPO during a firm's quarterly earnings announcement date. This variable is set to zero if during the quarter of earnings announcement there is no peer firm filing for IPO. All models include a constant, forecast calendar quarter fixed effects and industry fixed effects, but the coefficients are not tabulated. Variable description and data sources are in the Appendix. Industry is a firm's 3-digit SIC code. Robust standard errors clustered at firm level are in the parenthesis. ***, **, and * indicate statistical significance at the 1%, 5% and 10% levels, respectively.

Dependent Variable	EM		Downward EM	
	(1)	(2)	(3)	(4)
# of IPOs	-0.147***		-0.159***	
	(0.016)		(0.017)	
IPO Volume		-0.018***		-0.021***
		(0.004)		(0.004)
Size	0.203***	0.204***	0.342***	0.342***
	(0.009)	(0.009)	(0.010)	(0.010)
Book to Market	-0.007	-0.006	0.274***	0.275***
	(0.030)	(0.030)	(0.033)	(0.033)
Leverage	-0.240***	-0.235***	-0.594***	-0.588***
	(0.057)	(0.057)	(0.068)	(0.068)
Sales Growth	1.971***	1.968***	0.697***	0.693***
	(0.070)	(0.070)	(0.058)	(0.058)
Cash Flow	-0.658***	-0.657***	-0.363***	-0.362***
	(0.004)	(0.004)	(0.004)	(0.004)
Industry Book to Market	-0.543***	-0.487***	-0.402***	-0.344***
	(0.068)	(0.068)	(0.076)	(0.076)
Quarter Fixed Effects	Yes	Yes	Yes	Yes
Industry Fixed Effects	Yes	Yes	Yes	Yes
# of obs.	169,993	169,993	169,993	169,993
R-squared	0.638	0.638	0.333	0.333

Table 3: Accrual Reversal

The dependent variable is "EM" in columns 1, 3 and 4, and "Downward EM" in columns 2, 5 and 6. The unit of analysis is firm-quarter observations. For columns 1-2, "Post IPO Dummy" is a dummy variable equal to one if at least one peer firm has attempted for IPO in the previous quarter but no peer firms have filed for IPO in the current quarter, and zero otherwise. For the rest of columns, this variable is set to one if at least one peer firm has filed for IPO in the previous quarter and zero otherwise. "# of IPOs" ("IPO Volume") is the natural logarithm of one plus the number of companies (one plus the sum of proceeds filed by companies) operating in the same industry that have filed for, but not completed, IPO during a firm's quarterly earnings announcement date. This variable is set to zero if during the quarter of earnings announcement there is no peer firm filing for IPO. All models include a constant, calendar quarter fixed effects and industry fixed effects, but the coefficients are not tabulated. Variable description and data sources are in the Appendix. Industry is a firm's 3-digit SIC code. Robust standard errors clustered at firm level are in the parenthesis. ***, **, and * indicate statistical significance at the 1%, 5% and 10% levels, respectively.

Dependent Variable	EM	Downward EM	EM		Downward EM	
	(1)	(2)	(3)	(4)	(5)	(6)
Post IPO Dummy	0.048**	0.081***	0.240***	0.072***	0.235***	0.106***
	(0.023)	(0.021)	(0.019)	(0.018)	(0.019)	(0.019)
# of IPOs			-0.190***		-0.201***	
			(0.016)		(0.017)	
IPO Volume				-0.009**		-0.013***
				(0.004)		(0.004)
Size	0.204***	0.342***	0.199***	0.036*	0.338***	0.322***
	(0.009)	(0.010)	(0.008)	(0.020)	(0.010)	(0.021)
Book to Market	-0.006	0.275***	-0.008	-0.344***	0.273***	-0.035
	(0.030)	(0.033)	(0.030)	(0.034)	(0.033)	(0.036)
Leverage	-0.234***	-0.587***	-0.233***	-1.114***	-0.587***	-1.168***
	(0.057)	(0.068)	(0.057)	(0.081)	(0.067)	(0.092)
Sales Growth	1.967***	0.692***	1.979***	2.366***	0.704***	1.093***
	(0.070)	(0.058)	(0.070)	(0.074)	(0.058)	(0.053)
Cash Flow	-0.657***	-0.362***	-0.659***	-0.728***	-0.364***	-0.424***
	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.005)
Industry Book to Market	-0.451***	-0.302***	-0.505***	-0.270***	-0.365***	-0.125
	(0.068)	(0.075)	(0.068)	(0.071)	(0.076)	(0.078)
Quarter Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Industry Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
# of obs.	169,993	169,993	169,993	169,993	169,993	169,993
R-squared	0.638	0.333	0.639	0.710	0.334	0.470

Table 4: Threat of IPO Rivals

The dependent variable is "EM" in columns 1-4 and "Downward EM" in columns 5-8. The unit of analysis is firm-quarter observations. "R&D" is the natural logarithm of one plus the average of peer firms' R&D expenditures in the year prior to their IPOs. "Patents" is the natural logarithm of one plus the average number of patents filed by peer firms over the three-year period before they file for IPO. Variable description and data sources are in the Appendix. All models include a constant, calendar quarter fixed effects and industry fixed effects, but the coefficients are not tabulated. Industry is a firm's 3-digit SIC code. Robust standard errors clustered at firm level are in the parenthesis. ***, **, and * indicate statistical significance at the 1%, 5% and 10% levels, respectively.

Dependent Variable	EM				Downward EM			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
# of IPOs × R&D	-0.053***				-0.049***			
	(0.008)				(0.008)			
# of IPOs × Patents		-0.070***				-0.053***		
		(0.008)				(0.009)		
IPO Volume × R&D			-0.012***				-0.011***	
			(0.002)				(0.002)	
IPO Volume × Patents				-0.020***				-0.016***
				(0.002)				(0.002)
# of IPOs	-0.050**	-0.032*			-0.069***	-0.071***		
	(0.020)	(0.019)			(0.021)	(0.021)		
IPO Volume			-0.002	-0.004			-0.006	-0.009**
			(0.004)	(0.005)			(0.004)	(0.005)
Size	0.203***	0.216***	0.204***	0.216***	0.342***	0.354***	0.342***	0.354***
	(0.009)	(0.009)	(0.009)	(0.009)	(0.010)	(0.010)	(0.010)	(0.010)
Book to Market	-0.007	-0.011	-0.007	-0.011	0.274***	0.304***	0.275***	0.305***
	(0.030)	(0.033)	(0.030)	(0.033)	(0.033)	(0.035)	(0.033)	(0.035)
Leverage	-0.238***	-0.270***	-0.232***	-0.269***	-0.592***	-0.655***	-0.586***	-0.653***
	(0.057)	(0.063)	(0.057)	(0.063)	(0.067)	(0.072)	(0.067)	(0.072)
Sales Growth	1.971***	2.016***	1.968***	2.014***	0.697***	0.742***	0.693***	0.739***
	(0.070)	(0.073)	(0.070)	(0.073)	(0.058)	(0.060)	(0.058)	(0.060)
Cash Flow	-0.658***	-0.657***	-0.658***	-0.656***	-0.363***	-0.357***	-0.362***	-0.357***

	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)
Industry Book to Market	-0.535***	-0.508***	-0.484***	-0.470***	-0.395***	-0.342***	-0.342***	-0.296***
	(0.068)	(0.076)	(0.068)	(0.076)	(0.076)	(0.086)	(0.076)	(0.086)
Quarter Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Industry Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
# of obs.	169,993	139,171	169,993	139,171	169,993	139,171	169,993	139,171
R-squared	0.639	0.637	0.638	0.636	0.334	0.322	0.333	0.322

Table 5: Industry Characteristics

The dependent variable is "EM" in columns 1-4 and "Downward EM" in columns 5-8. The unit of analysis is firm-quarter observations. In Panel A, an industry is classified as a "High HHI" industry if its Herfindahl-Hirschman Index falls above the sample median and in an industry of high information asymmetry ("High Info Asymmetry") industry if the average of analyst forecast errors of all the firms in the industry falls above the sample median. In Panel B, a firm is considered as an industry leader if its sales falls into the top sample quartile in an industry-year. "Leader EM" ("Leader Downward EM") is set to "EM" ("Downward EM") by an industry leader if, within 30 days prior to an incumbent's quarterly earnings announcement, the leader announces quarterly earnings and there exists peer firms that have filed but not completed IPO. If more than one industry leader announces quarterly earnings in this 30-day window, we take the average. This variable is set to zero if there is no peer IPO up to 30 days before current incumbent's earnings announcement. Variable description and data sources are in the Appendix. All models include a constant, calendar quarter fixed effects and industry fixed effects, but the coefficients are not tabulated. Industry is a firm's 3-digit SIC code. Robust standard errors clustered at firm level are in the parenthesis. ***, **, and * indicate statistical significance at the 1%, 5% and 10% levels, respectively.

Panel A: Industry Information Asymmetry and Competition

Dependent Variable	EM				Downward EM			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
# of IPOs × High Info Asymmetry	-0.131***				-0.130***			
	(0.017)				(0.018)			
# of IPOs × High HHI		0.225***				0.164***		
		(0.031)				(0.035)		
IPO Volume × High Info Asymmetry			-0.169***				-0.170***	
			(0.016)				(0.018)	
IPO Volume × High HHI				0.053***				0.050***
				(0.009)				(0.009)
# of IPOs	-0.064***	-0.163***			-0.085***	-0.170***		
	(0.017)	(0.016)			(0.018)	(0.017)		
IPO Volume			0.004	-0.025***			-0.003	-0.028***
			(0.004)	(0.004)			(0.004)	(0.004)
High Info Asymmetry	-0.060***		-0.042**		-0.063***		-0.045***	
	(0.017)		(0.017)		(0.017)		(0.017)	
High HHI		0.122***		0.136***		0.037		0.033

		(0.034)		(0.033)		(0.035)		(0.034)
Size	0.207***	0.204***	0.207***	0.204***	0.345***	0.342***	0.346***	0.343***
	(0.009)	(0.009)	(0.009)	(0.009)	(0.010)	(0.010)	(0.010)	(0.010)
Book to Market	0.012	-0.008	0.012	-0.007	0.280***	0.274***	0.280***	0.275***
	(0.031)	(0.030)	(0.031)	(0.030)	(0.034)	(0.033)	(0.034)	(0.033)
Leverage	-0.217***	-0.249***	-0.215***	-0.243***	-0.585***	-0.600***	-0.584***	-0.594***
	(0.058)	(0.057)	(0.058)	(0.057)	(0.069)	(0.068)	(0.069)	(0.068)
Sales Growth	1.943***	1.972***	1.942***	1.968***	0.671***	0.698***	0.670***	0.694***
	(0.071)	(0.070)	(0.071)	(0.070)	(0.059)	(0.058)	(0.059)	(0.058)
Cash Flow	-0.658***	-0.658***	-0.658***	-0.658***	-0.364***	-0.363***	-0.364***	-0.363***
	(0.004)	(0.004)	(0.004)	(0.004)	(0.005)	(0.004)	(0.005)	(0.004)
Industry Book to Market	-0.555***	-0.550***	-0.525***	-0.498***	-0.374***	-0.406***	-0.346***	-0.353***
	(0.071)	(0.068)	(0.071)	(0.068)	(0.070)	(0.076)	(0.070)	(0.076)
Quarter Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Industry Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
# of obs.	158,524	169,993	158,524	169,993	158,524	169,993	158,524	169,993
R-squared	0.643	0.639	0.643	0.639	0.352	0.334	0.352	0.333

Table 5 continued

Panel B: Industry Leaders

Dependent Variable	EM		Downward EM	
	(1)	(2)	(3)	(4)
# of IPOs	-0.112***		-0.122***	
	(0.016)		(0.018)	
# of IPOs × Leader EM	4.472***			
	(0.594)			
# of IPOs × Leader Downward EM			3.759***	
			(0.759)	
IPO Volume		-0.012***		-0.010**
		(0.004)		(0.004)
IPO Volume × Leader EM		1.316***		
		(0.176)		
IPO Volume × Leader Downward EM				1.343***
				(0.224)
Size	0.204***	0.204***	0.343***	0.343***
	(0.009)	(0.009)	(0.010)	(0.010)
Book to Market	-0.008	-0.007	0.274***	0.275***
	(0.030)	(0.030)	(0.033)	(0.033)
Leverage	-0.242***	-0.236***	-0.596***	-0.590***
	(0.057)	(0.057)	(0.067)	(0.067)
Sales Growth	1.971***	1.968***	0.697***	0.693***
	(0.070)	(0.070)	(0.058)	(0.058)
Cash Flow	-0.658***	-0.657***	-0.363***	-0.362***
	(0.004)	(0.004)	(0.004)	(0.004)
Industry Book to Market	-0.543***	-0.490***	-0.403***	-0.348***
	(0.068)	(0.068)	(0.076)	(0.076)
Quarter Fixed Effects	YES	YES	YES	YES
Industry Fixed Effects	YES	YES	YES	YES
Observations	169,993	169,993	169,993	169,993
R-squared	0.639	0.638	0.333	0.333

Table 6: Presence of Short-term Incentive

The dependent variable is "EM" in columns 1-2 and "Downward EM" in columns 3-4. The unit of analysis is firm-quarter observations. "High Short-term Ownership" is a dummy variable set to one if the fraction of a firm's shares held by transient investors falls to the top sample tercile, and zero otherwise. Variable description and data sources are in the Appendix. All models include a constant, calendar quarter fixed effects and industry fixed effects, but the coefficients are not tabulated. Industry is a firm's 3-digit SIC code. Robust standard errors clustered at firm level are in the parenthesis. ***, **, and * indicate statistical significance at the 1%, 5% and 10% levels, respectively.

Dependent Variable	EM		Downward EM	
	(1)	(2)	(3)	(4)
# of IPOs	-0.189***		-0.192***	
	(0.018)		(0.019)	
# of IPOs × High Short-term Ownership	0.117***		0.090***	
	(0.021)		(0.022)	
IPO Volume		-0.030***		-0.029***
		(0.005)		(0.005)
IPO Volume × High Short-term Ownership		0.036***		0.024***
		(0.006)		(0.007)
High Short-term Ownership	0.037*	0.033*	0.049**	0.052**
	(0.019)	(0.019)	(0.021)	(0.021)
Size	0.193***	0.193***	0.332***	0.332***
	(0.009)	(0.009)	(0.010)	(0.010)
Book to Market	0.008	0.009	0.290***	0.290***
	(0.030)	(0.030)	(0.033)	(0.033)
Leverage	-0.217***	-0.211***	-0.572***	-0.566***
	(0.057)	(0.057)	(0.068)	(0.068)
Sales Growth	1.973***	1.969***	0.699***	0.695***
	(0.070)	(0.070)	(0.058)	(0.058)
Cash Flow	-0.659***	-0.658***	-0.363***	-0.363***
	(0.004)	(0.004)	(0.004)	(0.004)
Industry Book to Market	-0.544***	-0.486***	-0.403***	-0.343***
	(0.068)	(0.068)	(0.076)	(0.076)
Quarter Fixed Effects	Yes	Yes	Yes	Yes
Industry Fixed Effects	Yes	Yes	Yes	Yes
# of obs.	169,993	169,993	169,993	169,993
R-squared	0.639	0.639	0.334	0.333

Table 7: Mechanism

The dependent variable is "Δ P/E", calculated as the difference between P/E ratios over the $[t-5, t+5]$ window surrounding a quarterly earnings announcement. P/E ratio at day $t-5$ $(t+5)$ is calculated as the stock price at day $t-5$ $(t+5)$, divided by earnings per share of previous (current quarter). The unit of analysis is firm-quarter observations. "Δ Size", "Δ Leverage", "Δ Sales Growth", "Δ Cash Flow" and "Δ Industry Book to Market" are the difference between "Size", "Leverage", "Sales Growth", "Cash Flow", and "Industry Book to Market" in current quarter and previous quarter, respectively. All models include a constant and calendar quarter fixed effects, but the coefficients are not tabulated. Variable description and data sources are in the Appendix. Robust standard errors clustered at firm level are in the parenthesis. ***, **, and * indicate statistical significance at the 1%, 5% and 10% levels, respectively.

Dependent Variable	Δ P/E					
	(1)	(2)	(3)	(4)	(5)	(6)
# of IPOs	-6.419***		-4.309***		-4.361***	
	(0.693)		(0.665)		(0.668)	
IPO Volume		-1.798***		-1.174***		-1.201***
		(0.214)		(0.208)		(0.208)
Δ Size			-113.010***	-113.684***	-111.811***	-112.474***
			(8.398)	(8.398)	(8.502)	(8.503)
Δ Leverage			295.151***	295.913***	287.698***	288.447***
			(18.860)	(18.862)	(19.081)	(19.082)
Δ Sales Growth			-250.420***	-250.462***	-244.866***	-244.902***
			(15.718)	(15.717)	(15.828)	(15.827)
Δ Cash Flow			-127.616***	-127.577***	-127.397***	-127.351***
			(4.057)	(4.056)	(4.129)	(4.128)
Δ Industry Book to Market					-0.161	0.110
					(7.856)	(7.853)
Quarter Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
# of obs.	116,328	116,328	114,792	114,792	111,577	111,577
R-squared	0.007	0.007	0.050	0.050	0.049	0.049

Table 8: Alternative Definitions of Industry Peers

Industry classification is based on Hoberg and Phillips (2010b) industry classification based on textual analysis on 10K filing in columns 1 to 4, based on Fama-French 48 industries in columns 5-8 and on 4-digit SIC codes in columns 9-12. The dependent variable is earnings management for columns 1-2, 5-6 and 9-10, and is downward earnings management for columns 3-4, 7-8, and 11-12. All models include a constant, calendar quarter fixed effects and industry fixed effects, but the coefficients are not tabulated. Variable description and data sources are in the Appendix. Robust standard errors clustered at firm level are in the parenthesis. ***, **, and * indicate statistical significance at the 1%, 5% and 10% levels, respectively.

	10K Filing				Fama-French 48				4-digit SIC code			
Dependent Variable	EM		Downward EM		EM		Downward EM		EM		Downward EM	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
# of IPOs	-0.092***		-0.084***		-0.135***		-0.129***		-0.100***		-0.074***	
	(0.017)		(0.015)		(0.013)		(0.013)		(0.015)		(0.016)	
IPO Volume		-0.011***		-0.009***		-0.019***		-0.014***		-0.117***		-0.110***
		(0.004)		(0.003)		(0.003)		(0.003)		(0.020)		(0.021)
Size	0.197***	0.198***	0.284***	0.285***	0.189***	0.190***	0.333***	0.334***	0.327***	0.209***	0.439***	0.348***
	(0.010)	(0.010)	(0.008)	(0.008)	(0.009)	(0.009)	(0.010)	(0.010)	(0.016)	(0.008)	(0.019)	(0.010)
Book to Market	-0.119***	-0.112***	0.188***	0.195***	0.003	0.004	0.282***	0.283***	0.179***	-0.038	0.617***	0.252***
	(0.037)	(0.037)	(0.033)	(0.033)	(0.032)	(0.032)	(0.035)	(0.035)	(0.066)	(0.030)	(0.071)	(0.032)
Leverage	-0.388***	-0.375***	-0.466***	-0.454***	-0.159***	-0.154***	-0.528***	-0.524***	-0.332***	-0.287***	-1.044***	-0.621***
	(0.068)	(0.068)	(0.058)	(0.058)	(0.059)	(0.059)	(0.072)	(0.072)	(0.110)	(0.057)	(0.127)	(0.069)
Sales Growth	1.915***	1.914***	0.646***	0.645***	1.952***	1.948***	0.656***	0.652***	1.439***	1.984***	0.341***	0.713***
	(0.078)	(0.078)	(0.045)	(0.045)	(0.070)	(0.070)	(0.058)	(0.058)	(0.104)	(0.070)	(0.100)	(0.058)
Cash Flow	-0.651***	-0.651***	-0.322***	-0.322***	-0.651***	-0.651***	-0.358***	-0.358***	-0.662***	-0.661***	-0.369***	-0.365***
	(0.004)	(0.004)	(0.003)	(0.003)	(0.004)	(0.004)	(0.005)	(0.005)	(0.005)	(0.004)	(0.007)	(0.004)
Industry Book to Market	-0.088	-0.075	0.049	0.063	-0.310***	-0.268***	-0.251***	-0.205**	-1.423***	-0.457***	-0.714***	-0.318***
	(0.086)	(0.086)	(0.072)	(0.072)	(0.078)	(0.078)	(0.082)	(0.082)	(0.227)	(0.067)	(0.216)	(0.075)
Quarter Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Industry Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
# of obs.	118,554	118,554	118,554	118,554	169,993	169,993	169,993	169,993	35,361	169,993	35,361	169,993
R-squared	0.630	0.630	0.435	0.435	0.630	0.630	0.320	0.320	0.681	0.641	0.379	0.338

Table 9: Alternative Measures for Earnings Management

The unit of analysis is firm-quarter observations. Columns 1-2 and 3-8 report OLS and logit regression coefficient estimates, respectively. The dependent variable is "MJEM" in columns 1-2, calculated as discretionary accrual based earnings management following modified Jones (1991) model; is a dummy variable set to one if the firm reports income-decreasing discretionary accruals in columns 3-4; is a dummy variable set to one if the firm reports earnings loss in columns 5-6; and is a dummy variable set to one if the reported earnings meet or just beat analyst forecast in columns 7-8. All models include a constant, calendar quarter fixed effects and industry fixed effects, but the coefficients are not tabulated. Variable description and data sources are in the Appendix. Industry is a firm's 3-digit SIC code. Robust standard errors clustered at firm level are in the parenthesis. ***, **, and * indicate statistical significance at the 1%, 5% and 10% levels, respectively.

Dependent Variable	MJEM		Report Income-Decreasing Discretionary Accruals		Report Earnings Loss		Meet or Just Beat Analyst Forecast	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
# of IPOs	-0.245***		0.109***		0.147***		-0.105***	
	(0.029)		(0.017)		(0.020)		(0.024)	
IPO Volume		-0.031***		0.011***		0.017***		-0.013**
		(0.007)		(0.004)		(0.005)		(0.007)
Size	0.175***	0.176***	-0.124***	-0.124***	-0.247***	-0.247***	0.052***	0.052***
	(0.014)	(0.014)	(0.008)	(0.008)	(0.012)	(0.012)	(0.013)	(0.013)
Book to Market	-0.907***	-0.905***	-0.035	-0.036	0.999***	0.998***	-0.649***	-0.647***
	(0.048)	(0.048)	(0.030)	(0.030)	(0.044)	(0.044)	(0.063)	(0.063)
Leverage	-2.018***	-2.009***	0.051	0.047	1.551***	1.542***	-0.514***	-0.510***
	(0.093)	(0.093)	(0.056)	(0.056)	(0.086)	(0.086)	(0.091)	(0.091)
Sales Growth	-0.489***	-0.489***	0.591***	0.590***	-0.209***	-0.209***	0.013***	0.013***
	(0.007)	(0.007)	(0.008)	(0.008)	(0.004)	(0.004)	(0.003)	(0.003)
Cash Flow	0.326***	0.416***	0.365***	0.324***	0.195*	0.135	0.671***	0.721***
	(0.103)	(0.104)	(0.072)	(0.072)	(0.101)	(0.101)	(0.117)	(0.117)
Industry Book to Market	2.046***	2.040***	-1.901***	-1.898***	-0.709***	-0.704***	-0.527***	-0.532***
	(0.092)	(0.092)	(0.062)	(0.062)	(0.050)	(0.050)	(0.050)	(0.050)
Quarter Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Industry Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
# of obs.	169,993	169,993	169,989	169,989	169,861	169,861	87,215	87,215
R-squared/Pseudo R-squared	0.293	0.293	0.350	0.350	0.224	0.224	0.057	0.057

Table 10: Endogeneity of Going-Public Activity

This table presents the endogeneity tests. The dependent variable is earnings management in column 1 and downward earnings management in column 2. The unit of analysis is firm-quarter observations. In Panel A, "Bio/Pharmaceutical" industry classification is based on Dambra, Field, and Gustafson (2015). "Post JOBS Act" is a dummy variable set for one if earnings announcement is made after April, 2012, the enactment of the JOBS Act, and zero otherwise. In Panel B, the dependent variable "# of IPOs" ("IPO Volume") is the natural logarithm of one plus the number of companies (one plus the sum of proceeds filed by companies) operating in the same industry that have filed for, but not completed, IPO during a firm's quarterly earnings announcement date. This variable is set to zero if during the quarter of earnings announcement there is no peer firm filing for IPO. "High VIX" is a dummy variable set to one if the monthly VIX at the time of quarterly earnings announcement is above sample median and zero otherwise. "Nasdaq Return" is the cumulative return of Nasdaq over two months prior to the earnings announcement date. All the models include a constant, industry fixed effects and calendar quarter fixed effects, but the coefficients are not tabulated. Variable description and data sources are in the Appendix. Industry is a firm's 3-digit SIC code. Robust standard errors clustered at firm level are in the parenthesis. ***, **, and * indicate statistical significance at the 1%, 5% and 10% levels, respectively.

Panel A: Go-Public Activity and JOBS Act

Dependent Variable	EM	Downward EM
	(1)	(2)
Bio/Pharmaceutical	-1.313**	-1.081**
	(0.598)	(0.424)
Bio/Pharmaceutical × Post JOBS Act	-0.900***	-0.963***
	(0.135)	(0.170)
Size	0.202***	0.341***
	(0.008)	(0.009)
Book to Market	-0.010	0.272***
	(0.030)	(0.033)
Leverage	-0.236***	-0.589***
	(0.056)	(0.067)
Sales Growth	1.972***	0.697***
	(0.070)	(0.058)
Cash Flow	-0.658***	-0.363***
	(0.004)	(0.004)
Industry Book to Market	-0.460***	-0.313***
	(0.068)	(0.075)
Quarter Fixed Effects	Yes	Yes
Industry Fixed Effects	Yes	Yes
# of obs.	169,993	169,993
R-squared	0.639	0.334

Table 10 continued.

Panel B: Go-Public Activity and Market Conditions

Dependent Variable	EM		Downward EM		EM		Downward EM	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
# of IPOs × High VIX	-0.211***		-0.171***					
	(0.018)		(0.019)					
IPO Volume × High VIX		-0.051***		-0.047***				
		(0.005)		(0.006)				
# of IPOs × Nasdaq Return					0.506***		0.269***	
					(0.090)		(0.097)	
IPO Volume × Nasdaq Return						0.162***		0.065*
						(0.031)		(0.034)
# of IPOs	-0.022		-0.058***		-0.151***		-0.161***	
	(0.018)		(0.020)		(0.016)		(0.017)	
IPO Volume		0.008*		0.003		-0.019***		-0.021***
		(0.005)		(0.005)		(0.004)		(0.004)
High VIX	0.104***	0.097***	0.088***	0.092***				
	(0.030)	(0.030)	(0.027)	(0.027)				
Nasdaq Return					-0.177*	-0.189*	0.075	0.113
					(0.107)	(0.110)	(0.132)	(0.138)
Size	0.203***	0.204***	0.342***	0.343***	0.203***	0.203***	0.342***	0.342***
	(0.008)	(0.008)	(0.010)	(0.010)	(0.009)	(0.009)	(0.010)	(0.010)
Book to Market	-0.009	-0.008	0.272***	0.273***	-0.008	-0.007	0.274***	0.274***
	(0.030)	(0.030)	(0.033)	(0.033)	(0.030)	(0.030)	(0.033)	(0.033)
Leverage	-0.252***	-0.242***	-0.604***	-0.595***	-0.242***	-0.236***	-0.595***	-0.589***
	(0.057)	(0.057)	(0.068)	(0.068)	(0.057)	(0.057)	(0.068)	(0.068)
Sales Growth	1.977***	1.972***	0.702***	0.697***	1.972***	1.968***	0.697***	0.694***
	(0.070)	(0.070)	(0.058)	(0.058)	(0.070)	(0.070)	(0.058)	(0.058)
Cash Flow	-0.658***	-0.658***	-0.363***	-0.363***	-0.658***	-0.658***	-0.363***	-0.362***
	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)
Industry Book to Market	-0.608***	-0.542***	-0.455***	-0.394***	-0.550***	-0.494***	-0.407***	-0.348***
	(0.068)	(0.068)	(0.076)	(0.076)	(0.068)	(0.068)	(0.076)	(0.076)

Quarter Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Industry Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
# of obs.	169,993	169,993	169,993	169,993	169,993	169,993	169,993	169,993
R-squared	0.639	0.639	0.334	0.333	0.639	0.638	0.333	0.333

Table 11: Timing of Accrual-Based Earnings Management

The unit of analysis is firm-quarter observations. Panel A examines the effect of industry shocks. The dependent variables are "EM" in columns 1-2 and "Downward EM" in columns 3-4. In columns 1-4, we replace industry fixed effects and quarter fixed effects with industry x quarter fixed effects. In columns 5-8, the dependent variables "EM" and "Downward EM" are estimated based on operating profit instead of net income. Panel B conducts a falsification test. "# of IPOs (t+2)" and "IPO Volume (t+2)" is the value of "# of IPOs" and "IPO Volume" two quarters ahead, respectively. We exclude observations with non-zero "# of IPOs" and "IPO Volume" in both current quarter t and quarter t+2. All the models include a constant, industry fixed effects and calendar quarter fixed effects, but the coefficients are not tabulated. Variable description and data sources are in the Appendix. Industry is a firm's 3-digit SIC code. Robust standard errors clustered at firm level are in the parenthesis. ***, **, and * indicate statistical significance at the 1%, 5% and 10% levels, respectively.

Panel A: The Effect of Industry Shocks

Dependent Variable	EM		Downward EM		EM		Downward EM	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
# of IPOs	-0.329***		-0.239***		-0.115***		-0.138***	
	(0.032)		(0.032)		(0.024)		(0.020)	
IPO Volume		-0.072***		-0.054***		-0.013**		-0.016***
		(0.008)		(0.008)		(0.005)		(0.004)
Size	0.223***	0.223***	0.348***	0.348***	0.162***	0.162***	0.319***	0.319***
	(0.008)	(0.008)	(0.010)	(0.010)	(0.013)	(0.013)	(0.011)	(0.011)
Book to Market	-0.055*	-0.053*	0.250***	0.251***	-1.001***	-1.001***	-0.332***	-0.331***
	(0.030)	(0.031)	(0.034)	(0.034)	(0.044)	(0.044)	(0.035)	(0.035)
Leverage	-0.321***	-0.303***	-0.635***	-0.622***	0.127	0.132	-0.465***	-0.460***
	(0.058)	(0.059)	(0.071)	(0.071)	(0.087)	(0.087)	(0.073)	(0.073)
Sales Growth	1.898***	1.895***	0.632***	0.630***	2.080***	2.078***	0.812***	0.808***
	(0.068)	(0.068)	(0.061)	(0.061)	(0.079)	(0.079)	(0.063)	(0.063)
Cash Flow	-0.692***	-0.691***	-0.380***	-0.380***	-0.498***	-0.498***	-0.279***	-0.279***
	(0.004)	(0.004)	(0.004)	(0.004)	(0.006)	(0.006)	(0.005)	(0.005)
Industry Book to Market	0.173	0.343***	0.047	0.163	-0.042	0.003	-0.111	-0.057
	(0.118)	(0.123)	(0.158)	(0.160)	(0.088)	(0.089)	(0.071)	(0.072)
Quarter Fixed Effects	No	No	No	No	Yes	Yes	Yes	Yes

Industry Fixed Effects	No	No	No	No	Yes	Yes	Yes	Yes
Industry x Quarter Fixed Effects	Yes	Yes	Yes	Yes	No	No	No	No
Observations	169,993	169,993	169,993	169,993	169,244	169,244	169,244	169,244
R-squared	0.698	0.698	0.459	0.459	0.421	0.421	0.252	0.251

Table 11 continued.

Panel B: Falsification Test

Dependent Variable	EM				Downward EM			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
# of IPOs (t+2)	0.006		0.104***		-0.038		0.029	
	(0.029)		(0.031)		(0.028)		(0.030)	
IPO Volume (t+2)		-0.003		0.001		-0.006		-0.003
		(0.005)		(0.005)		(0.005)		(0.005)
# of IPOs			-0.222***				-0.224***	
			(0.020)				(0.023)	
IPO Volume				-0.011**				-0.010**
				(0.005)				(0.004)
Size	0.119***	-0.071***	0.168***	0.001	0.247***	0.223***	0.317***	0.296***
	(0.009)	(0.027)	(0.008)	(0.022)	(0.010)	(0.028)	(0.009)	(0.023)
Book to Market	-0.220***	-0.394***	-0.047	-0.296***	0.085**	-0.104**	0.215***	-0.022
	(0.037)	(0.043)	(0.031)	(0.036)	(0.037)	(0.042)	(0.035)	(0.039)
Leverage	-0.314***	-1.096***	-0.258***	-1.021***	-0.342***	-0.789***	-0.517***	-0.946***
	(0.069)	(0.106)	(0.058)	(0.087)	(0.083)	(0.112)	(0.069)	(0.097)
Sales Growth	2.241***	2.668***	2.108***	2.454***	0.952***	1.379***	0.836***	1.187***
	(0.101)	(0.108)	(0.071)	(0.078)	(0.073)	(0.077)	(0.062)	(0.059)
Cash Flow	-0.684***	-0.730***	-0.663***	-0.722***	-0.380***	-0.417***	-0.365***	-0.415***
	(0.006)	(0.006)	(0.004)	(0.005)	(0.006)	(0.006)	(0.005)	(0.005)
Industry Book to Market	-0.392***	-0.221***	-0.491***	-0.301***	-0.229***	-0.058	-0.329***	-0.149*
	(0.078)	(0.083)	(0.070)	(0.074)	(0.086)	(0.097)	(0.080)	(0.083)
Quarter Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Industry Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
# of obs.	90,394	90,394	136,685	136,685	90,394	90,394	136,685	136,685
R-squared	0.634	0.693	0.632	0.707	0.332	0.426	0.325	0.471

Table 12: Offer Price Revision and IPO Withdrawal

The sample contains firms that went public during the 1991-2014 period. The unit of analysis is IPO firm observations. The dependent variable is "Offer Price Revision" in column 1, computed as the final offer price divided by the mid-point of the price range at the filing date, minus one; is "Proceeds Revision", calculated as the final proceeds offered divided by proceeds filed minus one; is "Frequency of Amendments" in column 3, calculated as the natural logarithm of one plus the number of amendment filings during the pre-offer period; and is a dummy variable set to one if a firm withdraws from the IPO and zero otherwise in column 4. "Pre-IPO Industry EM" is the average "EM" of firms operating in the same industry as the IPO firm during its pre-IPO filing period. Columns 1-3 report the coefficient estimates from an OLS regression whereas column 4 reports the coefficient estimates from a logit regression. All the models include a constant but the coefficients are not tabulated. Variable description and data sources are in the Appendix. Industry is a firm's 3-digit SIC code. Robust standard errors clustered at firm level are in the parenthesis. ***, **, and * indicate statistical significance at the 1%, 5% and 10% levels, respectively.

Dependent Variable	Offer Price Revision	Proceeds Revision	Frequency of Amendments	Probability of Withdrawal
	(1)	(2)	(3)	(4)
Pre-Offer Industry EM	0.783**	1.302**	-0.030***	-0.155**
	(0.324)	(0.612)	(0.009)	(0.062)
Proceeds	-0.017		0.188***	0.875***
	(0.426)		(0.015)	(0.077)
VC Back	3.313***	4.752***	-0.103***	-0.962***
	(0.870)	(1.298)	(0.020)	(0.166)
High Underwriter Reputation	2.216***	2.098	0.083***	-4.587***
	(0.786)	(1.346)	(0.019)	(0.362)
Pre-Offer Market Return	48.345***	96.128***	0.380	-4.906***
	(8.759)	(19.613)	(0.358)	(0.788)
Filing Period Duration	-4.982***	-12.540***	0.371***	2.081***
	(0.932)	(1.901)	(0.030)	(0.133)
Pre-Offer Industry Book to Market	-12.832***	-10.692*	-0.492***	0.590
	(3.005)	(5.463)	(0.080)	(0.439)
Pre-Offer Industry Size	-0.510	0.126	0.086***	-0.029
	(0.514)	(0.997)	(0.016)	(0.088)
Pre-Offer Industry Sales Growth	-2.263	-6.838	0.222**	1.060
	(4.363)	(8.151)	(0.103)	(0.725)
Pre-Offer Industry Cash Flow	1.254***	2.188***	-0.032***	-0.173***
	(0.230)	(0.401)	(0.006)	(0.038)
Pre-Offer Industry Leverage	2.467	7.050	-0.594***	-0.261
	(3.687)	(6.900)	(0.120)	(0.549)
# of obs.	3,776	3,776	3,776	4,877
R-squared/Pseudo R-squared	0.071	0.062	0.433	0.527

Table 13: Post IPO Investment and Performance

The sample contains firms that went public during the 1991-2014 period. The unit of analysis IPO firm-year observations. The dependent variable is an IPO firm's annual capital spending scaled by lagged total assets (column 1), cash flow (column 2), cash holdings (column 3), and ROA (column 4) during three years after IPO. "Pre-IPO Industry EM" is the average "EM" of firms operating in the same industry during an IPO firm's pre-IPO filing period. "Size" is the natural logarithm of total assets. "Big 4 Auditor" is a dummy variable set to one if a firm hires a Big 4 auditor. "Dividend" is a dummy variable set to one if a firm pays dividend. All the models include a constant, industry fixed effects and year fixed effects, but the coefficients are not tabulated. Variable description and data sources are in the Appendix. Industry is a firm's 3-digit SIC code. Robust standard errors clustered at firm level are in the parenthesis. ***, **, and * indicate statistical significance at the 1%, 5% and 10% levels, respectively.

Dependent Variable	CAPEX	Cash Flow	Cash Holding	ROA
	(1)	(2)	(3)	(4)
Pre-IPO Industry EM	0.004**	0.013*	-0.014***	0.013**
	(0.002)	(0.007)	(0.005)	(0.006)
Size	0.002*	0.089***	-0.036***	0.086***
	(0.001)	(0.007)	(0.004)	(0.005)
Leverage	-0.009	-0.207***	0.026***	-0.357***
	(0.006)	(0.033)	(0.010)	(0.024)
Big 4 Auditor	-0.002	-0.006	-0.465***	-0.008
	(0.003)	(0.010)	(0.019)	(0.012)
Book to Market	-0.015***	-0.015*	-0.101***	-0.054***
	(0.003)	(0.009)	(0.009)	(0.010)
Dividend	0.002	0.054***	-0.024**	0.070***
	(0.005)	(0.011)	(0.010)	(0.011)
Pre-IPO Industry Cash Flow	0.001	0.009*	-0.012***	0.011***
	(0.001)	(0.005)	(0.003)	(0.004)
Pre-IPO Industry Book to Market	-0.003	0.078*	-0.105**	0.123**
	(0.015)	(0.043)	(0.042)	(0.051)
Pre-IPO Industry Size	0.013	-0.058	0.042	-0.082
	(0.018)	(0.049)	(0.047)	(0.055)
Pre-IPO Industry Sales Growth	0.002	-0.020*	0.021**	-0.025***
	(0.003)	(0.011)	(0.008)	(0.010)
Pre-IPO Industry Leverage	0.013	0.087	-0.110*	0.143*
	(0.024)	(0.076)	(0.061)	(0.077)
Year Fixed Effects	Yes	Yes	Yes	Yes
Industry Fixed Effects	Yes	Yes	Yes	Yes
# of obs.	5,274	5,273	5,259	5,274
R-squared	0.392	0.583	0.376	0.424

Table 14: Strategic Reporting and Incumbents' Performance

The sample period is 1991-2014. We exclude firm-year observations for IPO firms up to three years after their IPO. The dependent variable is a firm's ROA in columns 1-2 and cash flow in columns 3-4. "# of completed IPOs (t-1)" is the natural logarithm of one plus the number of peer IPOs completed in the previous year. "Pre-IPO Industry EM of completed IPOs (t-1)" is the average of "Pre-IPO Industry EM" of peer IPOs completed in the previous year. "Size" is the natural logarithm of total assets. "Big 4 Auditor" is a dummy variable set to one if a firm hires a Big 4 auditor. "Dividend" is a dummy variable set to one if a firm pays dividend. All the models include a constant and fixed effects as indicated in the table, but the coefficients are not tabulated. Variable description and data sources are in the Appendix. Industry is a firm's 3-digit SIC code. Robust standard errors clustered at firm level are in the parenthesis. ***, **, and * indicate statistical significance at the 1%, 5% and 10% levels, respectively.

Dependent Variable	ROA		Cash Flow	
	(1)	(2)	(3)	(4)
# of completed IPOs (t-1)	-0.022***	-0.011***	-0.018***	-0.011***
	(0.004)	(0.004)	(0.003)	(0.003)
# of completed IPOs (t-1) × Pre-IPO Industry EM of completed IPOs (t-1)	-0.986***	-0.890***	-0.534***	-0.494***
	(0.193)	(0.179)	(0.127)	(0.116)
Size	0.078***	0.082***	0.057***	0.066***
	(0.002)	(0.005)	(0.001)	(0.004)
Leverage	-0.357***	-0.260***	-0.146***	-0.089***
	(0.008)	(0.011)	(0.005)	(0.006)
Big 4 Auditor	-0.005	-0.016*	-0.010**	-0.009
	(0.006)	(0.009)	(0.004)	(0.006)
Book to Market	-0.034***	-0.036***	-0.019***	-0.026***
	(0.004)	(0.005)	(0.003)	(0.003)
Dividend	0.000	0.001	0.008*	-0.002
	(0.006)	(0.007)	(0.004)	(0.005)
Industry Fixed Effects	Yes	No	Yes	No
Firm Fixed Effects	No	Yes	No	Yes
Year Fixed Effects	Yes	Yes	Yes	Yes
Observations	66,080	66,080	64,606	64,606
R-squared	0.514	0.769	0.414	0.737

Table 15: Market Reactions to Quarterly Earnings Announcements

The dependent variable is "CAR", calculated as the market-adjusted cumulative stock return over the two-day [0,1] window surrounding a firm's quarterly earnings announcement. The unit of analysis is firm-quarter observations. "Post IPO Dummy" is a dummy variable equal to one if at least one peer firm has attempted for IPO in the previous quarter and zero otherwise. "# of IPOs" ("IPO Volume") is the natural logarithm of one plus the number of companies (one plus the sum of proceeds filed by companies) operating in the same industry that have filed for, but not completed, IPO during a firm's quarterly earnings announcement date. This variable is set to zero if during the quarter of earnings announcement there is no peer firm filing for IPO. All models include a constant but the coefficients are not tabulated. Variable description and data sources are in the Appendix. Robust standard errors clustered at firm level are in the parenthesis. ***, **, and * indicate statistical significance at the 1%, 5% and 10% levels, respectively.

Dependent Variable	CAR					
	(1)	(2)	(3)	(4)	(5)	(6)
Post IPO Dummy	0.138**	0.160***	0.168**	0.156**	0.165**	0.150**
	(0.058)	(0.059)	(0.068)	(0.071)	(0.068)	(0.072)
# of IPOs	-0.054***		-0.116**		-0.143***	
	(0.011)		(0.046)		(0.048)	
IPO Volume		-0.192***		-0.032**		-0.039**
		(0.037)		(0.014)		(0.015)
Size			0.106***	0.109***		
			(0.016)	(0.016)		
Book to Market			0.206*	0.216**	0.365***	0.384***
			(0.102)	(0.103)	(0.110)	(0.111)
Observations	154,206	154,206	154,206	154,206	154,206	154,206
R-squared	0.000	0.000	0.001	0.001	0.001	0.001

Table 16: IPO Waves and Strategic Reporting

This table reports the results from a spline regression. The unit of analysis is firm-quarter observations. The dependent variable is "EM". "# of IPOs" ("IPO Volume") is the natural logarithm of one plus the number of companies (one plus the sum of proceeds filed by companies) operating in the same industry that have filed for, but not completed, IPO during a firm's quarterly earnings announcement date. This variable is set to zero if during the quarter of earnings announcement there is no peer firm filing for IPO. In column 1, spline is based on the number of public firms in an industry. In column 2, spline is based on the number of IPOs that are completed in the previous 12 months. All models include a constant, forecast calendar quarter fixed effects and industry fixed effects, but the coefficients are not tabulated. Variable description and data sources are in the Appendix. Industry is a firm's 3-digit SIC code. Robust standard errors clustered at firm level are in the parenthesis. ***, **, and * indicate statistical significance at the 1%, 5% and 10% levels, respectively.

Dependent Variable	EM	
	(1)	(2)
# of IPOs × Spline 1 (Smallest # of public firms in an industry)	-0.113*	
	(0.060)	
# of IPOs × Spline 2	-0.034	
	(0.026)	
# of IPOs × Spline 3 (Largest # of public firms in an industry)	-0.179***	
	(0.017)	
# of IPOs × Spline 1 (Smallest # of IPOs completed in the past 12 months)		0.002
		(0.026)
# of IPOs × Spline 2		-0.020
		(0.028)
# of IPOs × Spline 3 (Largest # of IPOs completed in the past 12 months)		-0.176***
		(0.017)
Size	0.203***	0.203***
	(0.009)	(0.009)
Book to Market	-0.007	-0.008
	(0.030)	(0.030)
Leverage	-0.241***	-0.243***
	(0.057)	(0.057)
Sales Growth	1.972***	1.972***
	(0.070)	(0.070)
Cash Flow	-0.658***	-0.658***
	(0.004)	(0.004)
Industry Book to Market	-0.544***	-0.547***
	(0.068)	(0.068)
Quarter Fixed Effects	Yes	Yes
Industry Fixed Effects	Yes	Yes
Observations	169,993	169,993
R-squared	0.639	0.639