ecgi

Torpedo Your Competition: Strategic Reporting and Peer Firm IPO

Finance Working Paper N° 732/2021
February 2023

Matthew T. Billett
Indiana University

Mark (Shuai) Ma
University of Pittsburgh

Xiaoyun Yu
Shanghai Advanced Institute of Finance, ABFER, CAFR and ECGI

ECGI Working Paper Series in Finance

Torpedo Your Competition: Strategic Reporting and Peer Firm IPO

Working Paper N° 732/2021

February 2023

Matthew T. Billett
Mark (Shuai) Ma
Xiaoyun Yu

We thank Brad Badertscher (discussant), Dan Bradley, Walid Busaba, Daniel Carvalho, Yao-Min Chiang, Paul Hsu, Vivian Fang, Mei Feng, Mariassunta Giannetti, Bob Jennings, Khim Kelly, Christian Larsen, Feng Li, Xiaoyang Li, Alexander Ljungqvist, Xiumin Martin, Roni Michaely, Jun Pan, Lin Peng, Scott Smart, Per Strömberg, Maya Waisman (discussant), Wenyu Wang, Harold Zhang, two anonymous reviewers of the 2021 FARS Midyear Meeting, and participants at the 30th Annual Conference on Financial Economics and Accounting at New York University, The 2nd Sun Yat Sen University Finance International Conference, the 2021 FARS Midyear Meeting, Baruch College of the City University of New York, Chinese University of Hong Kong, Shenzhen Campus, City University of Hong Kong, Hong Kong Polytechnic University, Indiana University, National University of Singapore, Nanyang Technological University, Nottingham University (Ningbo), Peking University, Renmin University of China, Shanghai Advanced Institute of Finance at Shanghai Jiao Tong University, Singapore Management University, Southern Methodist University, Stockholm School of Economics, Texas Christian University, Tsinghua University PBC School of Finance, University of California at Los Angeles, University of Central Florida, University of Kentucky, University of Pittsburgh, University of Texas at Dallas, and Washington Area Symposium for valuable comments. Xiaoyun Yu gratefully acknowledges financial support from the Arthur M. Weimer Fellowship.

Abstract

A firm's initial public offering (IPO) generates negative externalities for industry competitors. To mitigate this threat, incumbent firms manage their earnings downwards, issue more negative management forecasts, and use a more negative disclosure tone when their industry peers file for an IPO. Negative accruals reverse when the threat subsides. Incumbents manage earnings more aggressively when costs are small and benefits are large, and when they follow negative disclosures of industry leading incumbents. Such strategic disclosure lowers incumbent firm valuation multiples and associates with more negative IPO firm media sentiment. IPO firms obtain lower offer prices, raise less capital, and are more likely to withdraw from the offering. They also invest less, hoard more cash, and experience lower profitability post IPO, while incumbents experience higher profitability and market share growth. Our results highlight the role of strategic reporting on product market competition and identify a new cost of going public.

Keywords: Initial public offerings, product market competition, strategic reporting

JEL Classifications: G3

Matthew T. Billett
Professor of Finance
Indiana University
1309 E. 10th Street
Bloomington, IN 47405, USA
phone: +1 812-855-3366
e-mail: mbillett@indiana.edu

Mark (Shuai) Ma
Assistant Professor of Accounting
University of Pittsburg
3950 Roberto Clemente Drive, Mervis Hall
Pittsburgh, PA 15260, USA
phone: +1 412 624 0830
e-mail: mark.ma@pitt.edu

Xiaoyun Yu*
Professor of Finance
Shanghai Advanced Institute of Finance
211 West Huaihai Road
Shanghai 200030, China
e-mail: xyyu@saif.sjtu.edu.cn

*Corresponding Author

Torpedo Your Competition: Strategic Reporting and Peer Firm IPO*

Matthew T. Billett, Mark (Shuai) Ma, and Xiaoyun Yu

Current Version: October 2022

Abstract

A firm's initial public offering (IPO) generates negative externalities for industry competitors. To mitigate this threat, incumbent firms manage their earnings downwards, issue more negative management forecasts, and use a more negative disclosure tone when their industry peers file for an IPO. Negative accruals reverse when the threat subsides. Incumbents manage earnings more aggressively when costs are small and benefits are large, and when they follow negative disclosures of industry leading incumbents. Such strategic disclosure lowers incumbent firm valuation multiples and associates with more negative IPO firm media sentiment. IPO firms obtain lower offer prices, raise less capital, and are more likely to withdraw from the offering. They also invest less, hoard more cash, and experience lower profitability post IPO, while incumbents experience higher profitability and market share growth. Our results highlight the role of strategic reporting on product market competition and identify a new cost of going public.

Key words: Initial public offerings, product market competition, strategic reporting

* Billett is from the Kelley School of Business, Indiana University, mbillett@indiana.edu; Ma is from the Katz School of Business, University of Pittsburgh, mark.ma@pitt.edu; Yu is from the Shanghai Advanced Institute of Finance, Shanghai Jiao Tong University, ECGI, and ABFER, xyyu@saif.sjtu.edu.cn. We thank Brad Badertscher (discussant), Dan Bradley, Walid Busaba, Daniel Carvalho, Yao-Min Chiang, Paul Hsu, Vivian Fang, Mei Feng, Mariassunta Giannetti, Bob Jennings, Khim Kelly, Christian Larsen, Feng Li, Xiaoyang Li, Alexander Ljungqvist, Xiumin Martin, Roni Michaely, Jun Pan, Lin Peng, Scott Smart, Per Strömberg, Maya Waisman (discussant), Wenyu Wang, Harold Zhang, two anonymous reviewers of the 2021 FARS Midyear Meeting, and participants at the 30th Annual Conference on Financial Economics and Accounting at New York University, The 2nd Sun Yat Sen University Finance International Conference, the 2021 FARS Midyear Meeting, Baruch College of the City University of New York, Chinese University of Hong Kong, Shenzhen Campus, City University of Hong Kong, Hong Kong Polytechnic University, Indiana University, National University of Singapore, Nanyang Technological University, Nottingham University (Ningbo), Peking University, Renmin University of China, Shanghai Advanced Institute of Finance at Shanghai Jiao Tong University, Singapore Management University, Southern Methodist University, Stockholm School of Economics, Texas Christian University, Tsinghua University PBC School of Finance, University of California at Los Angeles, University of Central Florida, University of Kentucky, University of Pittsburgh, University of Texas at Dallas, and Washington Area Symposium for valuable comments. Xiaoyun Yu gratefully acknowledges financial support from the Arthur M. Weimer Fellowship.

Torpedo Your Competition: Strategic Reporting and Peer Firm IPO

1. Introduction

An initial public offering (IPO) is arguably the most important milestone in a firm's life. By tapping a broad investor base and raising a large amount of capital, IPO firms typically expand production capacity, pursue growth opportunities, and generally become more competitive – much to the detriment of rival firms. Consequently, existing literature documents that a successful IPO hurts the performance of its industry competitors. On average, incumbent firms experience negative stock price reactions, dwindling market shares, and decreased 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). IPOs also prompt private rivals to attempt their own IPO in an effort to mitigate the competitive disadvantage resulting from competing against the newly created public firm (Aghamolla and Thakor 2022), further adding to the competitive pressure faced by already public incumbent firms. While most of the literature focuses on the benefits accrued to IPO firms and the *ex-post* competitive effects on rivals, little research explores *ex-ante* actions by industry incumbents that potentially mitigate threats from rivals' IPOs.

Given that the IPO firm's ability to compete depends crucially on the amount of capital it will ultimately raise, incumbent firms have an incentive to negatively impact its IPO. Recognizing that investors make inferences from existing publicly traded firms (Kim and Ritter 1999), incumbents could take actions, perhaps via disclosures, that negatively affect the entrant's IPO prospects, therefore reducing its capital-raising ability.

We examine how firms report earnings in response to their peers' IPO. We postulate that industry incumbents strategically manage their accruals downwards in order to curtail the issuing

firm's capital-raising efforts.[1] *Ex ante*, the effectiveness of such earnings management is debatable. Some studies find that investors do not fully detect accrual-based earnings management (Sloan 1996; Xie 2001), suggesting such actions by incumbents would be influential. Unlike altering real production or operations, managing accruals is timelier and more flexible, and possibly less costly in the long run. Given the pricing of a private firm's IPO relies less on firm-specific information and more on industry prospects and comparable firm multiples (Kim and Ritter 1999; Benveniste et al. 2003), downward earnings management by incumbents could have deleterious effects for the IPO firm's valuation and ultimate IPO success.[2] Such strategic reporting, however, could have the opposite effect. Releasing unfavorable earnings news by incumbents may make the IPO firm look relatively more attractive to investors. In this case, the incumbent may have an incentive to manage earnings higher in order to hinder the IPO's prospects. Ultimately, the actions of incumbents and the influence of these actions on the IPO's prospects remain an empirical question.

To identify this strategic reporting channel, we exploit variation in mandatory quarterly disclosure dates which are largely set well in advance and seldom depart significantly from the schedule (Johnson and So 2018). This setting, along with our empirical design – in particular the inclusion of industry × quarter fixed effects, allows us to see how reporting behaviors of industry incumbents, *within the same quarter*, differ by whether or not their announcement date falls within versus just outside the rival firm's IPO filing window. We conjecture that incumbents reporting within the rival's filing window have an incentive to disclose poor earnings news that could harm

[1] We rely on quarterly reported earnings for our primary tests for econometric identification reasons, which we detail below. We find consistent results when we explore management earnings guidance as well as management tone from 10Qs.

[2] This argument assumes that future prospects of the incumbent and IPO firm are positively correlated for such an information transfer to occur (see Foster 1981; Bowen, Castanias, and Daley 1983; Baginski 1987).

the prospects of the IPO. This contrasts with incumbents reporting outside the filing window in the same quarter, given that their announcement will not influence IPO pricing.

Using a sample of quarterly earnings announcements by US firms from 1991 to 2017, we find that incumbent firms manage earnings downward following IPO filings, especially when the issuing firm poses a bigger threat to the incumbent. The downward discretionary accruals reverse in the following quarter when there is no IPO filing in the industry. Our results are robust to a variety of alternative specifications, including various controls for firm-specific characteristics, the use of alternative earnings management measures – some of which does not rely on accruals, and the use of alternative industry classifications to identify peers, including the text-based approach of Hoberg and Phillips (2010).

There are other venues, beyond earning announcements, through which incumbents may communicate poor prospects. We explore how voluntary management earnings guidance changes during the IPO filing window and find incumbents facing IPO threats revise earning guidance downward. We also conduct textual analysis to compute the disclosure tone of firms' 10Q filings. We find that the tone, especially the one associated with industry-related discussions, is significantly more pessimistic when incumbents face IPO threats. Lastly, there is evidence that incumbents engage in real earnings management as long as there is sufficient time for their real actions to implement and materialize. They appear to rely more on strategic reporting than real actions when there is less sufficient response time.

Conceptually, to what extent an incumbent engages in strategic disclosure hinges on the trade-off between the cost (negative market reaction from releasing unfavorable earnings news) and the benefit (hindrance of a rival's capital-raising effort and its long run competitive threat) of doing so. We find that earnings management is less pronounced if the cost is large, such as when

the incumbent faces pressure for short-term stock price performance from investors or pressure from analysts to meet or beat their expectations. Incumbents also manage earnings downward more aggressively if the benefits are likely to be greater, including when IPO firms pose a bigger competitive threat, when strategic reporting cannot be easily detected – such as if analyst coverage is lower or there is a strong presence of less experienced analysts, and when there is a greater co-movement of returns in an industry, facilitating information spillover to the IPO firm.

We next explore mechanisms linking incumbent earnings management and rival IPO outcomes. Our evidence suggests that incumbents' downward earnings management leads to a lower P/E ratio. Since valuation multiples of listed firms are commonly used by investors and underwriters to assess the future prospects for a given industry and guide the IPO offer price, a lower incumbent P/E ratio may indicate pessimistic prospects for the IPO firm. We also find that when incumbents manage earnings downward, industry returns decline and analyst forecasts become more pessimistic. Media sentiment about IPO firm also falls. All of which may shape investors' perception, presumably dampening their demand for the shares of the IPO firm. Lastly, there is evidence of incumbent tactic collusion in reporting: an industry leader's strategic reporting and pessimistic tone associated with industry-related discussion exacerbate fellow incumbents' effort of downward earnings management. Followers are more likely to reference industry-related issues in their 10Q filings when their leaders have done so. Taken together, these findings corroborate with our interpretation that product market competition motivates a firm to obstruct its industry rival's IPO efforts through strategic reporting.

Finally, we assess the economic consequences of incumbents' strategic reporting. When its incumbents engage in more aggressive downwards earnings management during the filing period, an issuing firm obtains a lower final offer price, raises a smaller amount of proceeds, and

is more likely to withdraw its offerings. This potentially hampers its ability to grow after the IPO and thus limits the extent of damage its IPO can impose upon industry rivals. Possibly due to the inability to raise sufficient capital, IPO firms experiencing more negative discretionary accruals by their incumbents during their going-public process spend less on capital investment, have lower operating cash flows, and are less profitable post IPO. They hoard more cash, arguably to alleviate refinancing risk and the underinvestment problem (Harford et al. 2014). By contrast, incumbents experience an improvement in operating performance and market share growth when their strategic reporting helps mitigate the IPO threat.

One concern for our study is that the decision to go public is endogenous. Our analysis focuses on incumbents' reporting practice *after* an IPO is filed, thus by design, taking the issuer's decision to go public as given. Nevertheless, if omitted variables drive both incumbent's earnings management and the issuer's decision to file for IPO, then our results would be biased. For instance, given IPOs often cluster in time and industry (Lowry and Schwert 2002; Benveniste et al. 2003), one may observe many going-public activities during the peak of an IPO wave, which might subsequently correlate with a decline in incumbents' earnings performance due to diminishing growth opportunities post industry peak. Alternatively, incumbents may release bad earnings news following the IPO filing in anticipation of heightened product market competition. Another possible explanation is that, to discourage an IPO attempt, incumbents may have managed earnings upwards prior to the IPO filing. Subsequently, 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, the inclusion of industry × quarter fixed effects captures variation among same-industry incumbents within the same quarter. This removes any confounding effects arising from time-varying industry shocks –

such as increased competition and diminished growth opportunities – that may explain the negative relation between IPO activities and incumbents' quarterly discretionary accruals. In addition, if heightened competition causes poor earnings performance, then the poor performance will be persistent. In contrast, we find evidence that accruals reverse in the absence of IPO filings (following prior IPO-related downward earnings management).

Second, we exploit the passage of the Jumpstart Our Business Startups (JOBS) Act, which spurred IPOs, particularly in the biotech and pharmaceutical industries (Dambra, Field, and Gustafson, 2015). Given the passage of the JOBS Act is unrelated to industry incumbents' disclosure strategies, IPOs induced by the Act are exogenous to incumbent earnings management. We show that incumbents in these two industries manage earnings downwards more aggressively after the passage of the JOBS Act, and more aggressively than incumbents in other industries. These tests provide causal inference for our findings and alleviate the concerns that downward earnings management is due to anticipated negative competitive effects of upcoming IPOs rather than a strategic attempt to impact the pricing of these IPOs.[3]

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 valuation. 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 use strategic reporting to limit these adverse effects brought about by the IPOs.

[3] 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 effect is stronger.

Our findings also add to prior studies on the role of strategic disclosure in deterring product market competition. 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. While reporting favorable news increases the incumbent's market valuation, it also suggests a more attractive product market and induces entry, compromising the incumbent's competitive position. Partial disclosure can arise in which the incumbent releasing bad news and withholding good news so as to deter entry and prevent the loss in profits due to heightened competition. The incentive to disclose unfavorable information is particularly strong when the entry costs are low or the threat imposed by potential entrants is high.

We provide empirical evidence consistent with their theoretical prediction that product market competition motivates strategic disclosure of unfavorable news. In this respect, our paper is related to prior studies exploring earnings management and disclosure as a tool to influence rivals and deter competition (e.g., Jones 1991, Berger and Hann 2007; Godsell, Welker, and Zhang 2017; Aobdia and Cheng 2018; Burks et. al. 2018; Tomy 2019; Cao, Fang, and Lei 2021; Kim, Verdi, and Yost 2020). For example, Godsell, Welker, and Zhang (2017) show that EU firms engage in income-decreasing earnings management around the initiation of an antidumping investigation. Tomy (2019) finds that incumbent banks use discretionary earnings management to deter entry in the banking industry. Cao, Fang, and Lei (2021) show that firms use social media to disclose negative information regarding peer firms, resulting in significantly positive abnormal returns for the disclosing firm. Chen, Miao, and Valentine (2022) show that peers of target firms engage in voluntary disclosure of bad news in response to an increase in control/takeover threat.

Using an IPO setting and focusing on mandatory disclosures, we document significant strategic interactions between public and private firms. We complement these studies by showing that firms disclose negative information to undermine their rivals' effort to raise capital and to mitigate the adverse consequences, and that strategic reporting can prevail in mandatory disclosure.

Last, our paper is related to the literature examining real actions that incumbents take to undermine product market competition. Such actions include undercutting prices (Goolsbee et al. 2008; Cheng et al. 2022), strategic under-advertising (Ellison and Ellison 2011), under/over-investment (Frésard and Valta 2016; Bloomfield and Tuijn 2019), and contracting (Aghion and Bolton 1987). While these studies show the importance of investment and operating channels, we add to this literature by highlighting financing as a viable channel to deter entry. We provide novel evidence that strategic reporting obstructs industry rivals' ability to raise capital, thereby hindering their growth and expansion in the product market. We also show that disclosure tactics may complement or substitute real actions in shaping the industry competitive landscape.

The rest of the paper is organized as follows. Section 2 introduces the methodology and describes the data. Sections 3 through 6 present the empirical results. Section 7 concludes. Variable definitions are in the Appendix. Internet Appendix IA.1 through IA.3 describe, respectively, robustness tests for alternative proxies for strategic reporting and for alternative industry classifications, as well as a test for endogeneity of going public.

2. Methodology and Data

An IPO is one of the most scrutinized information events in a firm's life. Entering the public domain requires a private firm to provide a broad dissemination of information regarding its operation and prospects, and in return, it garners feedback from investors. During the roadshow,

the issuing firm and its underwriter meet with investor groups to pitch the company's prospects. In turn, investors communicate demand for the IPO. The final offer price is conditioned on information acquired through the book-building process (Benveniste and Spindt 1989).[4] Prior work documents that information acquired from investors during this process leads to revised IPO pricing and terms. Negative feedback often leads to withdrawal of the offering or downward revision of the offer price, while positive feedback leads to an increase in the final offer price relative to the indicative price in the initial prospectus filed with the SEC (e.g., Hanley 1993; Cornelli and Goldreich 2001).

Because little firm-specific information exists for the issuing firm, investor beliefs about its IPO prospect depend heavily on the more plentiful and reliable information available from publicly traded industry incumbents (Benveniste et al. 2003; Wang, Winton, and Yu 2010). Investment bankers typically use valuation multiples from comparable companies when pricing an IPO (Kim and Ritter 1999). In this respect, the incumbents' strategic reporting effort to depress their rival's capital-raising attempt can be particularly effective.

2.1 Regression Framework

We explore incumbent firms' reporting practice in response to the IPO activities in their industry in the context of quarterly earnings releases. One advantage of focusing on mandatory earnings disclosure is that the announcement dates are largely scheduled well in advance and information content in these releases is relatively comparable. This setting, along with the inclusion of industry × quarter fixed effects in our analyses, provides a powerful identification of strategic earnings management given that within the same quarter, those industry incumbents with

[4] Following the IPO literature, we define the pre-IPO, book-building phase 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. In what follows, we use "booking-building period", "filing period", and "pre-IPO period" interchangeably.

dates within the rivals' IPO filing window are contrasted with those whose dates fall just outside the filing window.

Prior literature has documented that firms delay the release of negative news when possible (e.g., Givoly and Palmon 1982; Chambers and Penman 1984). In recent decades, however, the extent to which a firm can strategically time its earnings announcement has become limited; Johnson and So (2018) show that firms have some ability to move their previously scheduled disclosure dates by a few days. In the context of our research setting, if incumbents intend to release bad news during the IPO filing window, then those having the ability to alter the announcement date and to manage earnings downward (or have bad earnings news to report) may move their dates accordingly. This would lead to more strategic disclosure of bad earnings news to be within the rival's IPO filing window.

Examining a firm's strategic reporting at a quarterly frequency not only allows the comparison of incumbents' disclosure behaviors within a narrow time window, but also offers two additional advantages. First, the duration of a pre-IPO filing period is typically far less than a year; in our sample, the median book-building period lasts 69 days. Deriving earnings management from quarterly instead of annual reporting will capture incumbents' response to the recent industry IPO activities more precisely. Second, managers can exercise 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 audits than interim reports, providing managers with relatively less discretion and fewer opportunities to manage earnings (Palepu 1988; Brown and Pinello 2007).

We estimate the following regression model to test our predictions:

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

where $EM_{i,t}$ is incumbent firm i's earnings management in quarter t and $PeerIPO_{i,t}$ measures IPO activities by firm i's industry. 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 et al. (2005), who estimate annual industry accruals regressions that control for firm performance and use the residual as "abnormal" accruals. We focus on this measure to better isolate the extent of downward earnings management arising from strategic motives rather than being driven by poor operating performance. [5] By construction, accrual-based earnings management proxies directly remove the impact of industry shocks.

We capture the extensive and intensive margins of the impact from IPOs using two proxies: "*# of IPOs*", calculated as the natural logarithm of one plus the number of IPOs in incumbent firm i's industry that have been filed but not completed as of the date of its quarterly earnings announcement. "*IPO Volume*" is calculated as the natural logarithm of one plus the total amount of proceeds filed by these IPO firms. These variables are set to zero if i's industry has no IPO filing at the time of the earnings announcement. Put differently, we restrict the event window to the date of the quarterly earnings announcement by an incumbent firm that falls into the book-building phase of the IPO firm.[6]

[5] Note, given that "*EM*" is the residual of an accruals model using all firms in an industry, the sum of all "*EM*"s across an industry will be zero; however, this may not be the case for subsample of industry incumbents who are exposed to peer IPO activities. In other words, in a given quarter some incumbents report before the IPO filing threat and some afterwards. In this case we expect those firms facing the threat to manage down earnings more than their counterparts who report prior to the threat.

[6] To illustrate, consider the following example: Incumbent firms A, B, and C all operate in the same industry, but differ in their disclosure dates. On March 10, 2019, incumbent A announced its quarterly earnings. At the time of the announcement, two firms in the same industry had filed but not yet completed their IPO; four had already completed their IPO prior to March 10; and one filed for IPO on March 11, 2019. For A in that quarter, "*# of IPOs*" is set to be log(1 + 2), and "*IPO Volume*" to be the natural logarithm of one plus the proceeds filed by the two IPO firms. Incumbent B announced its earnings on February 5, 2019. At the time of the announcement, four firms had filed but not yet completed their IPO and one had already completed its IPO. Three more filed for IPO after February 5. For B in that quarter, "*# of IPOs*" is set to be log(1+4). On March 31, 2019 when incumbent C announced its quarterly earnings, all issuing firms had completed their IPO. Both "*# of IPOs*" and "*IPO Volume*" are thus set to be zero for C in that quarter.

We include control variables that may affect an incumbent firm's discretionary accruals (e.g., Kothari, Leone, and Wasley 2005; Zang 2012; Fang, Huang, and Karpoff 2016), such as firm "*Size*", growth opportunities (captured by the book to market ratio), "*Leverage*", "*Sales Growth*", and "*Cash Flow*" (see appendix for definitions). Incumbents may manage earnings downward due to an anticipated decline in performance arising from a change in industry dynamic, which may simultaneously drive a private firm's decision to file for an IPO (Pagano, Panetta, and Zingales 1998; Spiegel and Tooks 2019). We thus control for industry × quarter fixed effects, which help restrict the comparison of disclosure behaviors to industry incumbents within the same quarter.

2.2 Sample Selection and Descriptive Statistics

We begin with a sample of non-financial and non-utility publicly listed US firms from COMPUSTAT. The initial sample contains 795,057 firm-quarter observations from 1991 to 2017. We remove 139,750 observations with missing earnings announcement dates and 27,853 observations with missing quarterly cash flow data. To ensure meaningful calculation of accrual-based earnings management, we exclude firm-quarter observations with missing accruals information and require each industry-quarter to have at least 15 firm-quarter observations and firms to have at least $10 million quarter-average total assets. This leaves us with 325,919 firm-quarter observations. Next, we exclude 28,993 observations with missing information for other financial variables, 13,156 observations with negative book to market ratios, and 95,701 observations for firms with a stock price less than $5 or a market value less than $50 million. The final sample consists of 188,069 firm-quarter observations.

We obtain a sample of IPO firms from the Thomson Financial Securities Data Corporation (SDC) new issues database from 1991 to 2017. We then exclude ADRs, unit offerings, reverse LBOs, foreign issues, REITs, financial service firms (SIC codes 4900-4950), utilities firms (SIC

codes 6000-6999), and firms that went public in an industry-quarter with less than 15 incumbent-quarter observations. To ensure that the IPO is economically relevant and to reduce the influence of microcap stocks, we remove offerings in which the offer price is either missing or less than $5 (Chemmanur and He 2011). The final sample contains 3,878 firms that went public in the US and 866 withdrawn offerings during the 1991-2017 period. Other data sources are described as we introduce them in the analysis.

Table 1 Panel A summarizes the sample characteristics of incumbent firms. The mean value of earnings management indicates that quarterly discretionary accruals over total assets averages around -0.18%.[7] An average incumbent has 3.98 billion in assets and is followed by 3.82 analysts. Its ROA is 0.77%. For the ease of interpretation, we report the number of IPOs and proceeds filed by IPO firms with and without the log form. For the full sample, there are 1.91 IPOs filed with total proceeds of $140.70 million in an average industry-quarter. We note that 65% of our sample industry-quarters have no IPO activities; among industry-quarters that do have, there are 5.54 IPOs filed with total proceeds of $407.2 million in an average industry-quarter.

Panel B describes the characteristics of IPO firms. An average IPO firm sets $12.47 per share offer price, representing 1% revision up from the initial filing price. It raises $88.73 million in proceeds, 3% more from the proceeds filed. Roughly 20% of those that file for an IPO ended 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.

[7] 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. We use a one-tailed *T*-test for the significance of the mean of "*EM*", given our prediction is that "*EM*" will be negative.

3. Strategic Reporting in Response to Peer's IPO

3.1 Incumbent's Earnings Management during the Pre-IPO Period

By construction, our accrual-based "*EM*" removes the impact of time-varying industry-specific shocks; all the residuals from the accrual estimation should thus sum up to zero within an industry-quarter. A necessary condition for the variation to come from strategic disclosure is that the average "*EM*" of incumbents whose earnings reporting dates overlap with IPO firms' filing window should differ from that of incumbents whose announcement dates fall outside the filing window.

Table 1 Panel C provides the univariate evidence of incumbent firms' strategic reporting. For this analysis, we restrict to the subsample of industry-quarters where there is at least one IPO filing. This highlights the variation by limiting the sample to all incumbents exposed to IPO activities in an industry-quarter, but that differ based on whether their mandatory disclosure date for that quarter is within versus outside the IPO filing window. Incumbents within the filing window ("*# of IPOs*" > 0) have discretionary accruals that are significantly lower than those incumbents that fall outside the window ("*# of IPOs*" = 0).

In Table 2, we perform multivariate analysis to explore how incumbent firms manage their quarterly earnings in response to the IPO events. We observe from columns 1-4 a negative and significant coefficient associated with the number of firms attempting an IPO, as well as the amount of proceeds they intend to raise, for both measures of earnings management. Since this set of analyses includes industry × quarter fixed effects, the results suggest that within the same quarter, industry incumbents whose announcement dates fall into the IPO firm's going-public stages manage their earnings downwards than those incumbents whose announcement dates do not overlap with the IPO firm's filing window. Given strategic earnings management in this setting

will result in more negative earnings, we also employ a variation of "*EM*"; "*Downward EM*" is set to "*EM*" if it is negative and zero otherwise. Columns 5-8 confirm our findings.

In terms of economic magnitude, column 3 suggests that when "*# of IPOs*" increases by one standard deviation (0.83), equivalent to 2.32 IPOs, earnings management leads to a lower "*EM"* of -0.2822 (-0.2822 = -0.340 × 0.83). Given that "EM" is the residual multiplied by 100 divided by assets, this translates into lower ROA by -0.2822%, a 36.6% reduction relative to the sample mean quarterly ROA of 0.77%. Column 4 implies that if "*IPO Volume*" increases by one standard deviation (equivalent to $13 million), earnings management leads to a 20% reduction in incumbent firm's return on assets relative to the sample mean (-0.20145 = -0.079 × 2.55).[8]

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

Table 3 provide additional evidence on incumbents' strategic understatement of quarterly earnings. In columns 1-2, the coefficient for the post IPO dummy is positive and significant, suggesting that discretionary accruals reverse once the threat of IPOs dissipates (i.e., in quarters without IPO filings). In columns 3-6, we explicitly consider the direct effect of IPOs and include "*# of IPOs*" and "*IPO Volume*". In these regressions, we re-define "*Post IPO Dummy*" as one if at

[8] To ensure that our baseline findings are not driven by the construction of IPO variables, we also re-estimate Table 2, replacing "*# of IPOs*" with a dummy variable set to one if there is at least one IPO filed but not completed at the time of the incumbent's earnings announcement and zero otherwise. In untabulated results, we find a significantly negative coefficient on this dummy variable.

least one IPO has been filed in the previous quarter and zero otherwise. Note that during the quarter of no IPO filings, both "*# of IPOs*" and "*IPO Volume*" are equal to zero. While the coefficients for "*# of IPOs*" and "*IPO Volume*" remain negative and significant, we always observe a positive effect, i.e., higher accruals, after IPO events. These results suggest that while the discretionary accruals become negative during the issuing firm's filing window, they reverse in the following period only after these IPOs are completed.

3.2 Robustness

3.2.1 Alternative Measures for Strategic Reporting

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 control for the extent of earnings management arising from firm's performance, which is especially crucial since we focus on downward earnings management. In the Internet Appendix IA.1, we check the robustness of our baseline findings using several alternative measures for strategic reporting. Specifically, we estimate the Dechow-Sloan-Sweeney (1996) version of discretionary accrual-based earnings management in a modified Jones (1991) model, the likelihood that a firm would report income-decreasing discretionary accruals, and the likelihood that a firm would report earnings loss (Burgstahler and Dichev 1997). Since the latter proxy does not depend on accruals, our findings on incumbents' strategic reporting are unlikely driven by specific accrual models. Alternatively, we adopt Godsell et al.'s (2017) single-step procedures and Chen et al.'s (2018) two-stage regression approach to estimate accrual-based earnings management.

Lastly, we calculate Francis et al.'s (2005) augmented modified Jones model to further mitigate the concern that our proxy reflects firm-specific performance information. We also consider a different benchmark of normal accruals – firm-size groups as in Ecker et al. (2013) – to

estimate the performance-adjusted modified Jones model. Internet Appendix IA.1 reveals that our findings are robust to these alternative measures for strategic reporting.

3.2.2 Alternative Ways to Classify Industry Peers

In the main analysis, we define an industry peer based on the firm's 3-digit SIC code. To ensure that we are appropriately identifying incumbents and rivals, we consider several alternative industry classifications. In the Internet Appendix IA.2, we classify industry peers according to the Hoberg and Phillips' (2010) approach, which is based on firm pairwise similarity scores from text analysis of firm 10K product descriptions. We also use Fama-French 48 industries and 4-digit SIC code. We find no evidence that our findings depend on the way that we classify an industry peer.

3.2.3 Endogeneity of Going-Public

One concern is that both a firm's decision to go public and the extent of earnings management by industry incumbents are 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* IPO filing. By design, our analysis takes a firm's decision to go public as given. In addition, we control for industry × quarter fixed effects, which take into account time-varying industry-specific shocks.

In the Internet Appendix IA.3, we also exploit the passage of the 2012 Jumpstart Our Business Startups Act (JOBS Act), which disproportionately increased IPO activity in the biotech and pharmaceutical industries (Dambra et al. 2015). Importantly, the JOBS Act should be unrelated to earnings management by existing public companies. We find that responding to JOBS-spurred (exogenous) IPO activity in these industries, incumbents' quarterly discretionary

accruals become more negative after the JOBS Act in comparison to before and compared to other industries.[9] [10]

3.3 Alternative Venues to Mitigate IPO's Competitive Threat

3.3.1 Management Forecast

In our main analysis, we focus on mandatory disclosure. This is because earnings announcement dates in this case are largely set well in advance and usually do not dramatically depart from the schedule. Together with the control for industry × quarter fixed effects, it provides a suitable setting to identify the strategic incentives behind releasing poor earnings news, highlighting the variation in disclosure behaviors in the same quarter of industry incumbents whose announcement dates fall into or outside the filing window of an IPO firm. In addition, a signal is more credible if it is costly, whereas voluntary disclosure is subject to perceived credibility and thus can be deemed "cheap talk" (Jennings 1987; Stocken 2000). Nevertheless, existing literature has shown that voluntary disclosure still serves as a venue for managers to communicate

[9] By simplifying the filing process for entrepreneurial firms, the JOBS Act speeds up the going-public process. Emerging growth companies can file confidentially, and their filing only becomes public information 15 days prior to the road show. This, however, does not affect our inference, as we show that only if an incumbent's announcement of its quarterly earnings falls during the filing period does the firm manage earnings downwards. In addition, the confidential filing may not be able to stay confidential. See also, "Confidential I.P.O Filing Work, if They Stay Confidential", July 7, 2017. The New York Times.

[10] Each of our sample IPOs experiences incumbent firms' quarterly earnings announcements during its filing period. A median IPO firm has 46 such announcements. Given that the median filing period lasts 69 days, it becomes difficult to time the filing in order to completely circumvent the incumbents' quarterly earnings announcement dates. The timing of the decision to go public is also influenced by other factors, such as venture capitalists' desire to harvest their investment within their fund horizon or founders' need to cash out, which may compromise an IPO firm's ability to time its filings. Lastly, IPO firms face limited ways to counter the actions of the incumbent firms. For instance, during the quiet period, management team is forbidden to offer any new information to the market participants that is not already contained in the registration statement. This severely limits their ability to respond to incumbents' negative disclosure occurring after the filing. We also note from Section 4 that the effectiveness of incumbents' downward earnings management, therefore the likelihood of engaging in strategic reporting, varies with the size of analyst coverage, the presence of senior analysts and short-horizon investors, with whether the incumbent continues to meet or exceed analysts' expectations, with whether there is substantial industry co-movement, and with whether the IPO is filed during the hot IPO market. It also depends on the competitive edge that incumbents have over the IPO firm. Put differently, the need for an IPO firm to prevent its filing period from overlapping with its industry incumbents' quarterly earnings announcement dates diminishes when the benefits for incumbents to manage earnings are small, or the costs of doing so are large.

information. Intuitively, we expect to observe that managers also engage in more pessimistic forecasts when their firms face IPO threats.

To consider management voluntary disclosure, we re-estimate our baseline regressions in Table 2, replacing the dependent variable with "*Management Forecast*", which is the difference between manager's forecasted quarterly earnings and analyst consensus forecasts, scaled by the share price at the beginning of the quarter. Due to data availability, we restrict the sample to 1993-2017. Consistent with our main findings, columns 1-2 of Table 4 Panel A reveal that management earnings forecast becomes more pessimistic when there are more industry IPO filings or the issuers attempt to raise a larger amount of capital.

3.3.2 The Tone of 10Q

We also explore the textual tone of management disclosure, comparing the tones in 10Q filings between incumbents in the same industry and in the same quarter whose earnings announcement date fell inside or outside an IPO filing window. For each incumbent-quarter, we extract the tone data from the WRDS SEC Analytics, available starting in 1995, and construct "*Tone of 10Q Filings*", which is the difference between the number of positive words and the number of negative words, scaled by the number of total words in its quarterly filing.

We then re-estimate our baseline regressions in Table 2, with "*Tone of 10Q Filings*" as the dependent variable. Columns 3-4 of Table 4 Panel A show that incumbent's disclosure more pessimistic when there are more IPO filings or a larger amount of capital to be raise.

The incumbent firm has an incentive to suggest that the prospects for the industry are poor and not that their own idiosyncratic performance is bad. To further pin down information conveyed in incumbent firms' disclosure, we collect data on the MD&A sections of the 10Q filings from the SEC Edgar website, which provides access to the full text of electronic filings starting in 2001.

We identify industry-related discussions in the MD&A sections and re-construct "*Tone of 10Q Filings*" for these discussions only. We then regress the proxy for the tone of industry-related discussion in 10Q filings to the number and volume of IPOs filed in a quarter. Since this set of analysis aims to evaluate the disclosure sentiment of industry-specific information, we cluster standard error at the industry level. Clustering at the industry × quarter level does not alter our findings.

Because many firms do not initiate industry-related discussions in the MD&A of their 10Q filings, there is a significant reduction in sample size. Nevertheless, columns 5-6 of Table 4 Panel A shows that the tone of industry-related discussion in 10Q MD&A is more negative when there are more IPO filings in that quarter, suggesting that incumbent firms are more inclined to reference to the industry-level bad news.

3.3.3 Real Earnings Management

So far, we consider managerial voluntary disclosure and tone management in 10Q filings as alternative venues through which incumbents may communicate poor prospects. The incumbent could also engage in real activities manipulation (Roychowdury 2006), such as over- or under-production, managing discretionary expenditures such as R&D and advertising, and altering product prices or discounts.

An important distinction between real actions versus accruals-based earnings management in mitigating the threat of competition is that the former usually take more time than the latter to implement and materialize. With the median book-building period lasting for 69 days in our sample, the extent that an incumbent firm can swiftly respond with real actions that can take effect in time may be limited.

Put differently, incumbent firms may be able to take real actions given sufficient response time; on the other hand, they may rely less on real earnings management if an IPO was filed within a short window close to its quarter ending date. To evaluate this conjecture, we compute, respectively, the number and volume of IPOs filed at least15 days prior an incumbent's quarter ending date (i.e., *"# of IPOs Before*" and "*IPO Volume Before*") and those filed within the 15 day-window (i.e., *"# of IPOs After*" and "*IPO Volume After*"). We adopt Roychowdury's (2006) measures of abnormal production costs (model 4) and abnormal discretionary expenses (model 5) for real earnings management. In the context of our analysis, an incumbent's excessive cut of price discounts and underproduction lead to abnormally low production costs relative to dollar sales. An increase in discretionary expenditures, on the other hand, leads to abnormally high discretionary expenses relative to sales.

We regress each of the real earnings management proxies, "*Abnormal Production Costs*" and "*Abnormal Discretionary Expenses*", on *"# of IPOs Before*" and *"# of IPOs After*", and on "*IPO Volume Before*" and "*IPO Volume After*", respectively. We observe from Table 4 Panel B that only the number and volume of IPOs filed at least 15 days prior to the incumbent's quarter-ending date are associated with abnormally low production costs (columns 1-2) and abnormally high discretionary expenses (columns 3-4). By contrast, these filed within the short 15-day window of the incumbent's quarter-ending date do not generate abnormally low production costs (column 5) or have much smaller effect on abnormally high discretionary expenses (column 6). Overall, the results are consistent with incumbents engaging in real actions – if given sufficient response time – to negatively impact the success of the IPO.

In columns 5-6 of Table 4 Panel B, we replace real earnings management proxies with "*EM*". Interestingly, while both IPOs filed sufficiently ahead and those filed close to incumbents'

quarter-ending dates are negatively related to earnings management, the coefficient estimates for these filed closer to incumbent's quarter-ending date are significantly larger.[11] This suggests that the real and accrual-based earnings management may complement each other: while the incumbent firm can deploy both real reactions and accruals-based earnings management to help deter the threat of competition when there is sufficient time for them to carry out real actions, they rely more on accruals-based earnings management when there is less sufficient time, such as when the filing occurs near to its quarter-ending date but before the earnings announcement.

4. The Costs and Benefits of Strategic Reporting

Our analysis so far provides evidence that incumbent firms engage in strategic reporting to undermine their rivals' capital raising effort. We postulate that how aggressively an incumbent manages its accruals hinges on the trade-off between the costs and benefits of doing so. We expect incumbents manage earnings downward to a lesser extent when the costs of deterring their competitors' capital-raising attempt are large or when the benefits are small.

4.1 The Role of Financial Analysts

The incumbent firms' effort to understate earnings, and the likelihood of convincingly doing so, hinge upon whether the market can easily detect such reporting strategies. Put differently, incumbents would forgo strategic reporting if it can be easily seen through, which diminishes its benefit to mitigate the competitive threat from IPOs. In this subsection, we focus on the role of

[11] Both the difference in coefficients associated "*# of IPOs Before*" and "*# of IPOs After*" in column 5 and the one associated with "*IPO Volume Before*" and "*IPO Volume After*" in column 6 are highly significant ($F = 48.31$ and $F = 30.75$, respectively).

financial analysts, a crucial information intermediary of the capital market, and consider several characteristics related to analyst coverage.[12]

First, more analyst coverage means more experts to see through incumbents' earnings management, which we would expect it to mitigate the effectiveness of deterring the competitive threat from IPOs Second, we expect the presence of more experienced senior analysts to make earnings management less effective. For each incumbent firm in each quarter, we thus calculate the size of coverage, measured by the number of analysts ("*# of Analysts*"), the number of senior analysts ("*# of Seniors*") and the fraction of analysts being senior analysts ("*% of Seniors*"). We define senior analysts to be those with more than 10 years of experience. Lastly, prior studies find that managers have stronger incentives to meet or beat analyst forecasts when their firms are covered by a larger number of analysts (e.g., Farrell and Widbee 2003; Huang et al. 2017). Downward earnings management thus is especially costly for these firms, and managers would be less incentivized to engage in such actions. We compute the number of times that an incumbent firm has beaten or met analyst consensus forecasts in the previous four quarters ("*# of Meet or Beat*"). A higher value of this variable suggests that the firm has less incentive to disclose bad news when it has more frequently met or exceeded analysts' expectations in the past, and thus is expected to continue to do so.

We then augment our baseline regression by interacting "*# of IPOs*" and "*IPO Volume*" variables with these measures. Table 5 shows that the coefficients associated with these interaction terms are positive and statically significant. This suggests that downward earnings management by an incumbent firm is less pronounced if analyst coverage is high, if there is a strong presence

[12] We are grateful for the editor to suggest this set of tests as well as the tests exploring incumbent tacit collusion in reporting in Section 5.

of more experienced analysts, or if the incumbent has frequently met or beaten analyst consensus forecast in the past.

Overall, while we continue to observe downward earnings management by incumbents in the presence of more IPO filings and larger volume of capital that IPO firms attempt to raise, they do so in a lesser extent when such strategic reporting can be easily detected, or the cost of doing so is high.

4.2 Short-horizon Investors

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 a short-term negative stock market reaction. This implies that the cost of downward earning management may 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 would be more reluctant to engage in downward earnings management.

We classify an incumbent firm as having 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*"). Columns 1-2 of Table 6 reveals that incumbents in

which transient investors have a larger stake manage their earnings downwards to a lesser extent during the issuing firm's filing period.

While we focus on reporting incentives originating from the pressure from transient investors to avoid bad news and, as highlighted in the previous section, the pressure from continuing to meet or beat analyst expectations, many other reporting incentives exist that are beyond the scope of the paper. For instance, incentives related to debt covenants and compensation contracts could also generate pressures that the incumbent managers face. As a result, the tests in columns 1-2 of Table 6 do not comprehensively address this issue.

4.3 Industry Co-movement

For the incumbent's strategic disclosure to effectively convey poor industry prospects rather than their own idiosyncratic poor performance, a key assumption is that future earnings of incumbents and industry are positively correlated.[13] Only when there are common shocks can there be a spillover of news to the IPO firm.

In the context of our analysis, this suggests that incumbents manage earnings more, which allow them to harvest larger competition deterrence benefit, if the ex-ante co-movement of earnings in an industry is higher. We calculate "*Comove*", which is the coefficient of regressing a firm's quarterly returns on assets on industry-quarter median returns on assets. We then lag this variable by one quarter to capture the pre-existing degree of co-moving with industry among different incumbents.

[13] This assumption is motivated by prior literature on information transfer (e.g., Foster 1981; Bowen, Castanias, and Daley 1983; Baginski 1987), which documents a significant impact of a firm's earnings announcement on the stock prices of non-announcing industry peers. Such information transfer exists because the future expected cash flows of industry peers are, on average, positively correlated. Thus, investors update their perception on the peers or the overall industry following the arrival of a firm's earnings information.

We re-estimate the baseline regression, including the interactions of "*Comove*" with "*# of IPOs*" and "*IPO Volume*", respectively. Columns 3-4 of Table 6 show that incumbents manage earnings downwards more aggressively if there is a more synchronized movement between their returns and that of the industry.[14]

4.4 IPO Market Conditions

The IPO market has long exhibited pronounced cycles. Existing literature characterizes the periods of "hot IPO markets" by severe IPO underpricing and a large number of firms going public (e.g., Lowry and Schwert 2002; Helwege and Liang 2004). In explaining why the IPO market cycles from hot to cold, Benveniste et al. (2003) show that the decision to go public and the likelihood of completion depend on market conditions and industry prospects. Consequently, an incumbent firm's incentive to engage in strategic reporting should vary with the IPO market circles. During a cold IPO market, there are fewer firms going public, therefore the incentive for incumbents to engage in costly strategic disclosure should be weaker. During the period of a hot IPO market, the competitive threat faced by incumbents is elevated when multiple firms in an industry attempt for IPO. As such, the incentive for strategic reporting can be stronger. Since IPOs also tend to cluster in industries, the marginal benefit of downward earnings management can be larger because releasing the same bad news can now impact negatively more IPOs.

To test the differential impacts of the IPO market conditions on incumbent firms' disclosure strategy, we augment our baseline regressions, interacting "*# of IPOs*" and "*IPO Volumes*" with an indicator variable for the hot IPO market. We note that the above variables of interest are, by construction, mechanically related to one of the two characteristics of a hot IPO market. For this reason, we instead measure (ex-ante) IPO market condition by the degree of

[14] We do not include the main effect of "*Comove*" in the estimation. This is because we cannot calculate the correlation if there is no IPO (i.e., if "*# of IPOs*" = 0 or "*IPO Volume*" = 0).

underpricing. Specifically, "*Hot IPO Market*" is a dummy variable set to one if the average IPO underpricing in the previous 4 months (i.e., $[t-4, t-1]$) is above the sample median.

Columns 5-6 of Table 6 report the results. We observe a positive and significant coefficient associated with the interaction term. While incumbents manage earnings downward if there are more IPO filings at the time they announce quarterly earnings, they do so to a greater extent during the period of a hot IPO market, in which the benefit of deterrence would arguably be larger.[15]

Overall, the above cross-sectional tests lend further credence to our inferences of the negative effect of IPOs on incumbents' discretionary accruals. While it is possible that omitted variables drive the documented results, it is difficult to conceive of an omitted variable that biases our results equally among incumbents that have a high or low level of short-horizon institutional ownership, that have more or less degree of co-movement with the industry, and that announce their earnings during the periods of hot or cold IPO markets. The differential effects of 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 these results are unlikely to be entirely driven by filing firms endogenously timing their IPO process in anticipation of incumbents' understated quarterly earnings.

4.5 Threat of IPO Rivals

Darrough and Stoughton (1990) and Wagenhofer (1990) theorize that the incentive to disclose unfavorable information is strong when the threat imposed by potential entrants is high.

[15] The more aggressive downward earnings management may capture incumbent firms' strategic reporting or may reflect their anticipated poor performance due to heightened competition brought about by a flood of IPOs during the hot market periods. The key difference between the two, however, is whether IPO firms indeed suffer during these periods when they face downward earnings management by incumbents. Using a subsample of firms that went public during hot IPO markets, we continue to find that incumbents' earnings management during a firm's filing period has a significantly negative impact on the outcome of its IPO.

In this subsection, we validate how the extent of downward earnings management varies with an IPO firm's ability to challenge the incumbents.

We measure the magnitude of the IPO firm's potential threat by the amount of its R&D spending and the innovativeness of its products prior to the IPO. R&D investments and innovation allow IPO firms to upgrade product quality and differentiate their products from industry rivals, suggesting such firms are a greater competitive threat to incumbent firms. Specifically, "*IPO R&D*" is the natural logarithm of one plus the average R&D expenditure of issuing firms in the year prior to their IPOs. "*IPO Patents*" is the natural logarithm of one plus the average number of patents produced by the issuing firms over the three-year period before they file for IPO.

We also create a relative size variable presuming that small IPO firms pose less of a threat to relatively large incumbents. While our main explanatory variable, "*IPO Volume*" – a common proxy for the size of the capital that IPO firms try to raise – captures the impact of these IPOs, we compute a direct pairwise measure, comparing the relative size between IPO firms and their industry incumbents. "*IPO Relative Size*" is the average of natural logarithm of issuing firms' total in the year prior to their IPO, scaled by the natural logarithm of the incumbent firm's total assets. A higher value of this measure indicates that IPO firms are closer in size relative to the incumbent.

We then repeat the baseline regressions in Table 2, replacing our measures for IPO activities ("*# of IPOs*" and "*IPO Volume*") with innovativeness of these IPO firms and their relative size to the incumbent. The results from Table 7 suggest that incumbents' downward earnings management becomes more aggressive when the threat from the IPO firm is large. i.e., when the upcoming IPOs are more innovative or invests more in R&D, or when the incumbent firm does not hold significant size advantage over these IPO firms.

5. Mechanisms

5.1 Incumbent's Valuation Multiple

Investment bankers often use valuation multiples from comparable firms, such as price-to-earnings (P/E) ratios, as a key reference to price an IPO (Kim and Ritter 1999). By reporting poor earnings news, incumbents may be able to undermine an IPO firm's capital raising effort with a low P/E ratio, misleading investors to be more pessimistic about its future prospects. Note, we are not arguing this lower P/E effect simply as a result of naive multiplication by a lower number, but rather that a lower incumbent firm multiple may indicate lowered expectations for future prospects of the industry, and thus for the IPO firm itself.

To provide evidence on this potential mechanism, we compute the change in an incumbent's forward P/E ratios over the $[t-3, t+3]$ window surrounding its quarterly earnings announcement. Specifically, P/E ratios at day $t-3$ and day $t+3$ are calculated, respectively, as the stock price at day $t-3$ divided by the last consensus analyst forecasted earnings per share prior to $t-3$, and the stock price at day $t+3$ divided by the last consensus analyst forecasted earnings per share prior to $t+3$.

Columns 1-2 of Table 8 Panel A reveal that the incumbent's P/E ratio decreases if there are IPOs and larger proceeds filed but not completed at the time of its earnings announcement. We control for changes in firm-specific characteristics from previous quarter to current quarter, such as changes in firm size, leverage, sales growth, and cash flow, 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 3-4, 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 results 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 may lead to a more pessimistic view of the IPO firm's future. This sheds light on a mechanism through which incumbents' downwards earnings management can affect the success of the IPO.

One potential concern is that the decline in PE multiples when there are more IPO filings in that quarter that we document could reflect the additional competitive pressure, rather than a venue through which incumbents engage in strategic reporting. To establish the link between the incumbent actions and their P/E ratios, we examine whether the PE multiple changes when the incumbent firm misses earnings consensus targets by analysts or earnings forecast by managers more frequently, or when unexpected earnings are more negative.

We calculate "*Miss (Analysts)*" and "*Miss (Management)*", which are, respectively, indicator variables for firms that miss quarterly analysts' earnings forecasts, and quarterly managerial forecasts. We also compute "*Earnings Surprise*", which is the difference between actual earnings per share and quarterly analyst consensus earnings forecasts, scaled by the stock price at the beginning of the quarter. In columns 1-6 of Table 8 Panel B, we first document that the incumbent firms are more likely to miss analyst consensus earnings targets and management earnings guidance, and their unexpected earnings are more negative, when there are more IPOs or larger proceeds filed in that quarter. Finally, in columns 7-10 of Table 8 Panel B, we show that downward earnings management, together with missing analyst consensus forecast, missing management forecast, and negative earnings surprise, negatively affect valuation multiple.

We conduct a path analysis to better ascertain the extent to which changing valuation multiple following incumbents' negative disclosure. In the first stage, we regress "*EM*" on "*# of*

IPOs" and "*IPO Volume*", respectively, as well as the control variables in Table 2. In the second stage, we regress "Δ*P/E*" on "*EM*" and controls variables in Table 8. We find strong evidence that industry rivals' IPO filings in a quarter have a negative effect on the change in P/E through downward earnings management. Specifically, the effects of "*# of IPOs*" and "*IPO Volume*" on "Δ*P/E*" through "*EM*" are, respectively, -0.406 and -0.113 (*p*-value = 0.000 and *p*-value = 0.000).

5.2 Analyst Forecasts

The effectiveness of incumbent firms' strategic reporting and the depressed valuation multiples following negative disclosure hinge on the presumption that market participants revise their beliefs accordingly. In this subsection, we consider one major class of sophisticated market participants – financial analysts, and examine whether they revise their forecasts following incumbents' earnings management. We calculate "*Analyst Forecast Revision*" as the difference between the first analyst consensus forecast for quarter $t + 1$ after the incumbent announces its quarterly earnings and the last analyst consensus forecast for quarter $t + 1$ before the earnings announcement, scaled by the stock price at the beginning of quarter t. We then regress this variable on the incumbent firm's "*EM*".

Columns 1-2 of Table 9 Panel A reveal that consensus earnings forecasts are more pessimistic after incumbents manage earnings downward, compared to these that do not manage earnings, suggesting that incumbent's downward earnings management generates more pessimistic beliefs, which may influence the market's expectation of incumbent's valuation, and ultimately, the IPO's prospects. While we see in Table 5 that incumbents manage earnings less as the number of analysts and senior analysts increases, these results in Table 9 suggest that analysts still make meaningful inferences and lower their forecasts accordingly.

5.3 Industry Returns

The incumbent firm has an incentive to suggest that the prospects for the industry are poor. In the previous section, we show that incumbent firms manage earnings more when there is a greater co-movement in earnings in an industry. This is because only when there are common shocks can there be a spillover of news to the IPO firm.

In this subsection, we examine whether incumbents' earnings management influence industry returns, which directly reflect the market's perception on the prospects of the IPO firm's industry. We calculate equally weighted and value-weighted two-day equally weighted industry abnormal returns over the $[t, t+1]$ window surrounding an incumbent's quarterly earnings announcement.

Columns 3-8 of Panel A of Table 9 show that industry return is lower when incumbent firms manage earnings downwards. The results lend support for incumbents' downward earnings management likely communicating the poor prospect of the industry, rather than reflecting their own poor idiosyncratic performance.

5.4 Media Sentiment on IPO Firms

If the incumbents' strategic reporting reflects negatively on the IPO firm's prospects, then we would expect that to be reflected in the media sentiment regarding the IPO firm. Existing literature documents that the extent of media exposure relates to IPO underpricing and post-offer performance (e.g., Cook, Kieschnick, and Van Ness, 2006; Chen et al. 2020). As such, by stimulating unfavorable news sentiment on IPO firms, incumbents' strategic disclosure may tamper their effort to raise capital.

To explore whether incumbent's downward earnings management leads to a decline in news sentiment on the IPO firm, we extract news reports for our sample IPOs from the "Equities"

section of the RavenPack News Analytics (RPNA), a comprehensive database recording all the news reports related to a firm, including those in which the firm is only briefly mentioned.[16] For each news article, RPNA ranks the relevance of the content for a specific firm. A Relevance Score of 0 means that the entity was passively mentioned while a score of 100 means the entity was prominent in the news story. For this reason, we require news pieces with the Relevance Scores exceeding 50. Since RPNA begins its data coverage in 2000, we restrict our analysis to the period of 2000-2017 and merge the news data with our IPO sample. We are able to identify news articles relating to 454 unique IPO firms during their filing periods.

We capture firm-specific media sentiment using RPNA's Composite Sentiment Score (CSS), which combines various sentiment analysis techniques to track the sentiment of news about a firm. The CSS ranges from 0 (the least favorable) to 100 (the most favorable), with 50 being neutral. Specifically, we compute "*ACSS*" by averaging CSS scores of news reports on a private firm that has filed but not completed its IPO over the 3-day post announcement period. In cases where there are multiple firms filing for IPO at the time of an incumbent's earnings announcement, we average "*ACSS*" across these firms (i.e., our unit of analysis is at the incumbent-quarterly earnings announcement level). Our empirical analysis focuses on a relatively short window following the incumbent's quarterly earnings announcement to better ensure that we capture the immediate effects of incumbents' strategic disclosure on IPO firms, limiting the possible impact of other news events unrelated to their earnings management over time.

[16] RPNA provides real-time structured sentiment, relevance and novelty data for entities and events detected in the unstructured text published by reputable sources. Publishers include the Dow Jones Newswires, the Wall Street Journal, Direct Regulatory and PR feeds and over 19,000 other traditional and social media sites. Its Global Equities section detects news and produces analytics data on over 40,000 listed stocks from the world's equity markets.

Panel B of Table 9 reports the results. In columns 1-3, we cluster standard errors at the IPO firm level, whereas in columns 4-6, standard errors are clustered at the incumbent firm level. We always observe a subsequent decrease in news sentiment score on the IPO firm when an incumbent manages its quarterly earnings downwards, even after we control for firm fixed effects and calendar quarter fixed effects. These findings suggest that incumbents' downwards earnings management spurs more negative media sentiment on the filing firm, arguably impedes the success of its IPO.

5.5 Leaders versus Followers

The market is more likely to attribute an incumbent's bad earnings news to a pessimistic outlook of the industry rather than to the incumbent's own "poor" performance if its fellow firms also engage in strategic reporting. To explore this within-industry dynamics among incumbents, we postulate that a leader's strategic disclosure is more likely to propel fellow incumbents' downward earnings management. Intuitively, followers face a smaller cost for releasing bad earnings news when their industry leader has already done so; on the other hand, they share in the benefit of deterring a rival's capital-raising effort when their tactical reporting increases the likelihood of distorting investors' beliefs about the IPO firm's future prospects. [17]

We classify an incumbent to be an industry leader if, in a given industry-year, its sales falls into the top sample quartile. Accordingly, "*Leader Negative EM*" is a dummy variable set to one if, up to 30 days prior to an incumbent firm's quarterly earnings announcement, the announced

[17] Even if leader firms have already driven down stock prices by claiming industry problems, it can still be optimal for other firms to follow the same strategy. This is because it is difficult for followers to convince the market that their performance is good when industry leaders report bad earnings news. Conversely, by following the leaders, the perceived costs of reporting negative news are smaller. In the context of our analysis, reporting good news generates little benefits for the followers, whereas mimicking the leader's negative disclosure not only creates cookie jar reserves for future earnings management, but also re-enforces the message conveyed by leaders with marginally smaller cost. The latter allows followers to share the benefit of reduced competitive threat when their colluded tactical reporting undermines the success of the IPO.

quarterly earnings of a leader results in a negative "*EM*", and zero otherwise. When more than one industry leader announces earnings during this period, the variable is set to one if the average of their "*EM*" is negative. We then interact the variable with "*# of IPOs*" and "*IPO Volume*".

Columns 1-2 of Table 9 Panel C reveal that while incumbents engage in strategic reporting when there are more IPO activities, they do so to a greater extent if there is an industry leader who previously managed earnings downwards. This suggests that a leader's own strategic reporting can encourage fellow incumbents to tag along, which, collectively, may help shape investors' perception of the IPO's future prospects.

Prior literature has established that followers also report bad news when industry leaders release negative earnings news (Bratten et al. 2016). As such, our findings can be simply explained by managers of followers perceiving that earnings news of the leader will affect investors' performance expectations for their firms, rather than coordinated reporting among incumbents. An important underlying mechanism to corroborate the interpretation of tacit collusion in reporting from the above analysis, however, is that the negative disclosure by incumbent leaders and followers shapes investors' beliefs about the industry, which then dampens the IPO firm's future prospects.

To evaluate this underlying mechanism, we first examine whether incumbent followers manage earnings downward more aggressively when their industry leaders' discussions about industry-related issues carry a more pessimistic tone. We then explicitly explore whether followers reference the same common industry issue as the leader when they release earnings so as to avoid the implication that downward earnings management is firm specific. For this set of tests, we require the presence of at least one IPO at the time the leader announces its quarterly earnings.

Specifically, we construct "*Leader Pessimistic Tone*", a dummy variable set to one if the tone of the industry-related discussions in the MD&A section of the 10Q filing of an industry leader who announced earnings ahead of the followers is below the sample median. Similarly, "*Leader Industry Discussion*", a dummy variable set to one if, up to 30 days prior to an incumbent firm's quarterly earnings announcement, an industry leader announces quarterly earnings and the MD&A section of the leader's 10Q filing contains industry-related discussions, and zero otherwise. Lastly, "*Industry Discussion*" is a dummy variable set to one if the MD&A section of the incumbent (follower) firm's 10Q filing contains industry-related discussions, and zero otherwise.

Columns 3-4 of Table 9 Panel C show that followers manage earnings downwards to a greater extent when their leaders' industry-related discussions are more pessimistic. The results in columns 5-6 further suggest a commonality in what is referenced between leaders and followers that pertains to the industry: Followers are more likely to discuss industry-related issues in their MD&A sections when their leaders have done so. The effect is also more pronounced when there is greater IPO activity.

Overall, the results in Table 9 Panel C lend support for incumbent tacit collusion in reporting (Bertomeu et al. 2021), rather than only capturing followers' firm-specific poor performance.

6. Real Consequences of Strategic Reporting

6.1 Do IPO Firms Suffer?

In this subsection, we evaluate the effect of the incumbents' disclosure on the IPO firm. We start with the success of an IPO event at the primary market. First, if incumbents' strategic reporting indeed influences negatively how investors and underwriters perceive the issuer, then

we should observe a lower final offer price and a smaller offer size at the end of the filing period. We calculate "*Offer Price Revision*", which is the percentage change of final offer price to the mid-point of initial filing price range, and "*Proceeds Revision*", which is the percentage change of the final proceeds offered from the initial proceeds filed. Since we focus on incumbents' quarterly earnings announcements that occur after the filing of the IPO, in which the initial price range and the proceeds attempted to raise are already set in the prospectus, a smaller offer price revision and proceeds revision indicate, respectively, a lower final offer price relative to the mid-point of the initial filing range and a smaller amount of final proceeds raised.[18]

Incumbents' reporting tactics may also create greater uncertainty surrounding the success of the IPO, which could cause the issuing firm to amend its initial filing more frequently or post-pone the IPO. We capture this uncertainty with "*Frequency of Amendments*", calculated as the natural logarithm of one plus the number of amendment filings during the pre-offer period. We also explore the likelihood that the IPO firm withdraws the offering.

In Panel A of Table 10, we estimate the extent to which incumbents' earnings management during a firm's book-building period affects the outcome of its IPO. The unit of analysis is IPO firm. "*Pre-IPO Incumbents' EM*" is the average quarterly earnings management by industry incumbents during an IPO firm's filing period. 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 IPO filing window, the IPO firm suffers a smaller offer price revision, raises less capital, amends its filings more frequently, and is more likely to withdraw. [19]

[18] It is possible that when a firm files for public offering, the filing price range is not included in the initial S-1 form but shows up in the subsequent amendment filing (S-1A form). In untabulated regressions, we show that both our baseline results and the results on price and proceed revisions are robust if we replace the original filing date with the first amendment filing date.

[19] Since clustering standard errors at the IPO firm level is meaningless in this set of analyses, we cluster standard errors at the IPO filing date (i.e., multiple firms may file for IPO on the same day).

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 to raise the desired amount of capital limits how fast an IPO firm can grow during this critical time, dampening the chance of its survival and the extent of the threat its IPO poses to the incumbents. We compare post-IPO performance among firms exposed to different degrees of incumbents' earnings management during their filing periods.

Panel B of Table 10 provides evidence consistent with incumbent earnings management limiting their rivals' post IPO expansion. IPO firms exposed to more aggressive downward earnings management by industry incumbents during their filing windows invest less after going public compared to those experiencing less earnings management. 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).[20]

6.2 Do Incumbents Benefit?

In Darrough and Stoughton (1990) and Wagenhofer (1990), reporting bad news (partial disclosure) may arise 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 6.1 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.

We next examine whether an incumbent's future performance exhibits beneficial effects from mitigating the IPO firm's competitive threat. In Table 11, we first estimate how an incumbent's profitability, measured by its ROA, improves after inhibiting its rival's IPO. For incumbent firm i in year t, we include *"# of Completed IPOs* (t-1)", calculated as the natural

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

logarithm of one plus the number of IPOs completed in i's industry in year $t-1$, as well as its interaction with variable "*Average Pre-IPO EM*", calculated as the average quarterly earnings management during the filing periods of IPOs completed in i's industry in year $t-1$. Since an IPO firm eventually will become an industry incumbent, in light of the findings in subsection 6.1 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.

Columns 1-2 report the results on incumbents' profitability. We observe 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)" × "*Average Pre-IPO EM*", is negative and significant, suggesting that the effect of IPOs on incumbents' profitability is mitigated when incumbents engage in more aggressive downward earnings management during the filing period.

One concern is that the incumbents' accrual reversal following the IPO completion explains higher profitability, instead of incumbents benefiting from strategic reporting to depress rivals' capital raising efforts. To rule out the possibility that the findings are mechanical, we replace ROA with cash flow as the dependent variable and re-estimate the tests. Columns 3-4 reveal that while 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.

Finally, in columns 5-6, we examine the mitigating effect on incumbent firms' market share growth. Following Fresard (2010) and Billett et al. (2017), we estimate a firm's market share growth as its sales growth minus the industry-year mean sales growth. To mitigate endogeneity

problems, we control 1-year and 2-year lagged leverage, book to market, and market share growth when analyzing incumbents' industry-year adjusted sales growth (Fresard 2010; Billett et al. 2017). Again, IPO activities subsequently lead to a lower market share growth for the incumbent firms, consistent with the findings in the prior literature. Nevertheless, the negative and significant coefficient associated with the interaction term corroborates with our interpretation that incumbents' strategic reporting mitigates the negative externalities of IPOs.

7. 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 mitigate the heightened market competition by managing earnings downwards during the IPO firm's filing period. The downward discretionary accruals reverse later when there is no IPO attempt in the industry. As a result, IPO firms suffer from a lower final offer price, raise less 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 and market share growth.

Our findings suggest that strategic reporting serves as a viable tool to deter entry of competitors. Importantly, incumbents' strategic disclosure discourages IPO activities, highlighting another cost of going public. This implies that industry policies are inevitably tilted towards a few

large incumbents if they can successfully prevent competitors from going public, adding another potential benefit for strategic disclosure.

References

Aghamolla, C. and R. Thakor. 2022. IPO peer effects. *Journal of Financial Economics* 144(1): 206-226.

Aghion, P. and P. Bolton. 1987. Contracts as a Barrier to Entry. *American Economic Review* 77(3): 388-401.

Aobdia, D. and L. Cheng. 2018. Unionization, product market competition, and strategic disclosure. *Journal of Accounting and Economics* 65: 331-357.

Baginski, S. P. 1987. Intra-industry information transfers associated with management forecasts of earnings. *Journal of Accounting Research* 25: 196-216.

Benveniste, L. and P. Spindt. 1989. How investment bankers determine the offer price and allocation of initial public offerings. *Journal of Financial Economics* 24: 343-362.

Benveniste, L., A. Ljungqvist, W. Wilhelm, and X. Yu. 2003. Evidence of Information Spillovers in the Production of Investment Banking Services. *Journal of Finance* 58: 577-608.

Bertomeu, J., J. Evans, III., M. Feng, and A. Tseng. 2021. Tacit Collusion and Voluntary Disclosure: Theory and Evidence from the U.S. Automotive Industry. *Management Science* 67(3): 1851-1875.

Berger, P. G. and R. N. Hann. 2007. Segment profitability and the proprietary and agency costs of disclosure. *The Accounting Review* 82: 869–906.

Bhattacharya, U., A. Borisov, and X. Yu. 2015. Firm Mortality and Natal Financial Care. *Journal of Financial and Quantitative Analysis* 50: 61-88.

Billett, M., J. Garfinkel, and M. Yu. 2017. The effect of asymmetric information on product market outcomes. *Journal of Financial Economics* 123: 357-376.

Bloomfield, M. and M. Tuijn. 2019. Do Firms Strategically Announce Capacity Expansions in Response to Heightened Entry Threats? Working Paper, University of Pennsylvania.

Bowen, R., R. Castanias, and L. Daley. 1983. Intra-Industry Effects of the Accident at Three Mile Island. *Journal of Financial and Quantitative Analysis* 18: 87–112.

Bratten, B. J. Payne, and W. Thomas. 2016. Earnings Management: Do Firms Play "Follow the Leader"? *Contemporary Accounting Research* 33(2): 616-643.

Brown, L. and A. Pinello. 2007. To what extent does the financial reporting process curb earnings surprise games? *Journal of Accounting Research* 45: 1–35.

Burks, J. J., C. Cuny, J. Gerakos, and J. Granja. 2018. Competition and voluntary disclosure: Evidence from deregulation in the banking industry. *Review of Accounting Studies* 23: 1471–1511.

Bushee, B. J. 1998. The influence of institutional investors on myopic R&D investment behavior. *The Accounting Review* 73: 305–333.

Bushee, B. J. 2001. Do Institutional Investors Prefer Near-Term Earnings over Long-Run Value? *Contemporary Accounting Research* 18: 207–246.

Cao, S., V. Fang, and L. Lei. 2021. Negative Peer Disclosure. *Journal of Financial Economics* 140(3): 815-837.

Chambers, A. and S. Penman. 1984. Timeliness of Reporting and the Stock Price Reaction to Earnings Announcements. *Journal of Accounting Research* 22: 21-47.

Chen, S. B. Miao, and K. Valentine. 2022. Corporate Control Contests and the Asymmetric Disclosure of Bad News: Evidence from Peer Firm Disclosure Response to Takeover Threat. *The Accounting Review* 97(1): 123-146.

Chen, Y., A. Goyal, M. Veeraraghavan, and L. Zolotoy. 2020. Media Coverage and IPO Pricing Around the World, *Journal of Financial and Quantitative Analysis* 55: 1515-1553.
Chemmanur, T. J. and J. He. 2011. IPO waves, product market competition, and the going public decision: Theory and evidence. *Journal of Financial Economics* 101: 382-412.
Cheng, S. O. Hope and D. Hu. 2022. Strategic Entry Deterrence in the Audit Industry: Evidence from the Merger of Professional Accounting Bodies, *Journal of Business, Finance, and Accounting* 49(1-2): 249-273.
Chod, J. and E. Lyandres. 2011. Strategic IPOs and product market competition. *Journal of Financial Economics* 100: 45-67.
Cook, D., R. Kieschnick, and R. Van Ness. 2006. On the marketing of IPOs, *Journal of Financial Economics* 82: 35-61.
Cornelli, F. and D. Goldreich. 2001. Bookbuilding and strategic allocation. *Journal of Finance* 56: 2337-2369.
Dambra, M., L. Field, and M. T. Gustafson. 2015. The JOBS Act and IPO volume: Evidence that disclosure costs affect the IPO decision. *Journal of Financial Economics* 116: 121-143.
Darrough, M. N., and N. M. Stoughton. 1990. Financial disclosure policy in an entry game. *Journal of Accounting and Economics* 12: 219–243.
Ecker, F. J. Francis, P. Olsson, and K. Schipper. 2013. Estimation sample selection for discretionary accruals models. *Journal of Accounting and Economics* 56(2-3): 190-211.
Ellison, G. and S. Ellison. 2011. Strategic Entry Deterrence and the Behavior of Pharmaceutical Incumbents Prior to Patent Expiration. *American Economic Journal: Microeconomics* 3(1): 1–36.
Farrell, K. and D. Whidbee. 2003. Impact of firm performance expectations on CEO turnover and replacement decisions. *Journal of Accounting and Economics* 36(1–3): 165-196.
Francis, J., R. LaFond, P. Olsson, and K. Schipper. 2005. The market pricing of accruals quality. *Journal of Accounting and Economics* 39(2): 295-327.
Frésard, L. 2010. Financial Strength and Product Market Behavior: The Real Effects of Corporate Cash Holdings. *Journal of Finance* 65: 1097-1122.
Frésard, L. and P. Valta. 2016. How Does Corporate Investment Respond to Increased Entry Threat? *Review of Corporate Finance Studies* 5(1): 1–35.
Foster, G. 1981. Intra-industry information transfers associated with earnings releases. *Journal of Accounting and Economics* 3: 201-232.
Givoly, D. and D. Palmon. 1982. Timeliness of Annual Earnings Announcements: Some Empirical Evidence. *The Accounting Review* 57: 486-508.
Godsell, D., M. Welker, and N. Zhang. 2017. Earnings Management during Antidumping Investigations in Europe: Sample-Wide and Cross-Sectional Evidence. *Journal of Accounting Research* 55: 407-457.
Goolsbee, A. and C. Syverson. 2008. How Do Incumbents Respond to the Threat of Entry? Evidence from the Major Airlines. *Quarterly Journal of Economics* 123(4): 1611-1633.
Graham, T. R., C. R. Harvey, and S. Rajgopal. 2005. The economic implications of corporate financial reporting. *Journal of Accounting and Economics* 40: 3–73.
Hancock, G.D. 2012. VIX and VIX Futures Pricing Algorthms: Cultivating Understanding, *Modern Economy* 3: 284-294.
Hanley, K. 1993. Underpricing of initial public offerings and the partial adjustment phenomenon. *Journal of Financial Economics* 34: 231-250.

Harford, J., S. Klasa, and W. F. Maxwell. 2014. Refinancing Risk and Cash Holdings. *Journal of Finance* 69: 975-1012.
Helwege, J. and N. Liang. 2004. Initial Public Offerings in Hot and Cold Market, *Journal of Financial and Quantitative Analysis* 39(3): 541-569.
Hoberg, G. and G. Phillips. 2010, Product Market Synergies and Competition in Mergers and Acquisitions: A Text-Based Analysis, *Review of Financial Studies* 23: 3773-3811.
Hsu, H., A. Reed, and J. Rocholl, 2010, The New Game in Town: Competitive Effects of IPOs, *Journal of Finance* 65: 495-528.
Huang, S. X., R. Pereira, and C. Wang. 2017. Analyst coverage and the likelihood of meeting or beating analyst earnings forecasts. *Contemporary Accounting Research* 34(2): 871-899.
Jennings, R. 1987. Unsystematic Security Price Movements, Management Earnings Forecasts, and Revisions in Consensus Analyst Earnings Forecasts. *Journal of Accounting Research* 25: 90-110.
Johnson, T. and E. So. 2018. Time Will Tell: Information in the Timing of Scheduled Earnings News. *Journal of Financial and Quantitative Analysis* 53: 2431-2464.
Jones, J. J. 1991. Earnings Management During Import Relief Investigations. *Journal of Accounting Research* 29: 193-228.
Kim, M. and J. Ritter. 1999. Valuing IPOs. *Journal of Financial Economics* 53: 409-437.
Kim, J., R. S. Verdi, and B. Yost. 2020. Do Firms Strategically Internalize Disclosure Spillovers? Evidence from Cash-Financed M&As. Working paper, MIT.
Kogan, L., D. Papanikolaou, and N. Stoffman. 2017, Winners and Losers: Creative Destruction and the Stock Market, *Journal of Political Economy* 132: 665-712.
Kothari, S. P., A. J. Leone, and C. E. Wasley. 2005. Performance matched discretionary accrual measures, *Journal of Accounting and Economics* 39: 163–197.
Lowry, M. and G. W. Schwert. 2002. IPO Market Cycles: Bubbles or Sequential Learning? *Journal of Finance* 57: 1171-1200.
Pagano, M., F. Panetta, and L. Zingales, 1998, Why Do Companies Go Public? An Empirical Analysis. *Journal of Finance* 53: 27-64.
Palepu, K. G. 1988. Discussion of Bad News and Differential Market Reactions to Announcements of Earlier-Quarters Versus Fourth-Quarter Earnings. *Journal of Accounting Rese*arch 26: 87-90.
Sloan, R. 1996. Do Stock Prices Fully Reflect Information in Accruals and Cash Flows about Future Earnings? *The Accounting Review* 71: 289-315.
Slovin, M., M. Sushka, and Y. M. Bendeck. 1991. The Intra-Industry Effects of Going-Private Transactions. *Journal of Finance* 46: 1537-1550.
Slovin, M., M. Sushka, and S. Ferraro. 1995. A comparison of the information conveyed by equity carve-outs, spin-offs, and asset sell-offs. *Journal of Financial Economics* 37: 89-104.
Stocken, P. 2000. Credibility of Voluntary Disclosure. *The RAND Journal of Economics* 31: 359-374.
Tomy, R. E. 2019. Threat of entry and the use of discretion in banks' financial reporting. *Journal of Accounting and Economics* 67: 1–35.
Xie, H. 2001. The Mispricing of Abnormal Accruals. *The Accounting Review* 76: 357-373.
Wagenhofer, A. 1990. Voluntary disclosure with a strategic opponent. *Journal of Accounting and Economics* 12: 341–36.
Wang, T., A. Winton, and X. Yu. 2010. Corporate Fraud and Business Conditions: Evidence from IPOs. *Journal of Finance* 65: 2255-2292.

Appendix: Variable Definitions

Variable	Definition and Data Source
# of IPOs	Natural logarithm of one plus the number of IPOs filed but not completed in an industry at the time of an incumbent's quarterly earnings announcement. This variable is set to zero if there is no IPO filed at the time of the announcement. Winsorized at the 1% and 99% levels. Industry classification is based on the 3-digit SIC code. Sources: SDC and COMPUSTAT.
# of Analysts	The number analysts following a firm in a quarter. Source: IBES.
# of Meet or Beat	The number of times a firm meets or beats analyst consensus forecast over the past four quarters. Source: IBES.
# (%) of Seniors	The number (fraction) of senior analysts with more than 10 years of experience following a firm in a quarter. A senior analyst is one with at least 10 years of experience. Source: IBES.
Analyst Forecast Revision	The difference between the first (last) analyst consensus earnings forecast for quarter $t+1$ after (before) the incumbent's quarterly earnings announcement, scaled by the stock price at the beginning of quarter t. Winsorized at the 1% and 99% levels. Source: IBES.
Abnormal Discretionary Expenses	Roychowdury's (2006) measure of abnormal discretionary expenditure for real earnings management (model 5), calculated as the residuals from regressing discretionary expenses (the sum of R&Dand SG&A expenses) on lagged sales. Winsorized at the 1% and 99% levels. Source: COMPUSTAT.
Abnormal Production Costs	Roychowdury's (2006) measure of abnormal production costs for real earnings management (model 4), calculated as the residuals from regressing production costs on sales. Winsorized at the 1% and 99% levels. Source: COMPUSTAT.
ACSS	The average of RavenPack's composite sentiment scores of news articles about an IPO firm published over the $[t+1, t+3]$ window when an industry incumbent announces its quarterly earnings at day t. If multiple IPOs have filed but not completed at the time of the incumbent's announcement, we average "*ACSS*" across IPO firms. Winsorized at the 1% and 99% levels. Source: RavenPack News Analytics.
Big 4 Auditor	A dummy variable equal to one if an IPO firm hires a Big 4 auditor, and zero otherwise. Source: COMPUSTAT.
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.
Comove	The coefficient from regressing a firm's quarterly ROA on industry-quarter median ROA, lagged by one quarter. We require at least 15 observations for each industry-quarter regression, Winsorized at the 1% and 99% levels. 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: COMPUSTAT.
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.
Earnings Surprise	The difference between actual earnings per share and quarterly analyst consensus earnings forecasts, scaled by the stock price at the beginning of the quarter, multiplied by 100. Winsorized at the 1% and 99% levels. Source: IBES.
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 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. Sources: 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.
Hot IPO Market	A dummy variable set to one if the average underpricing in the previous 4 months (i.e., $[t-4, t-1]$) is above the sample median, and zero otherwise. Source: Jay Ritter's website.
Industry Book to Market	The average of book to market ratios of public firms in an industry. Source: COMPUSTAT.
Industry Discussion	A dummy variable set to one if the MD&A section of the incumbent firm's 10Q filing contains industry-related discussions, and zero otherwise. Source: SEC Edgar.
IPO Patents	In each incumbent firm-quarter, this variable is set to the natural logarithm of one plus the average number of patents filed by IPO firms

	over the three-year period before they file for IPO. This variable is set to zero if there is IPO filing at the time of the incumbent's earnings announcement. Winsorized at the 1% and 99% levels. Sources: SDC and Kogan, Papanikolaou, and Soffman (2017).
IPO R&D	In each incumbent firm-quarter, this variable is set to the natural logarithm of one plus the average of R&D expenditures of IPO firms in the year prior to their IPO. This variable is set to zero if there is no IPO filing at the time of the incumbent's earnings announcement. Winsorized at the 1% and 99% levels. Sources: SDC and COMPUSTAT.
IPO Relative Size	In each incumbent firm-quarter, this variable is set to the average of the natural logarithm of total assets of IPO firms in the year prior to their IPO, scaled by the natural logarithm of the incumbent firm's total assets. This variable is set to zero if there is IPO filing at the time of the incumbent's earnings announcement. Winsorized at the 1% and 99% levels. Sources: SDC and COMPUSTAT.
IPO Volume	Natural logarithm of one plus the sum of proceeds filed by IPO firms at the time when an incumbent firm announces its quarterly earnings. This variable is set to zero if there is no IPO filing at the time of quarterly earnings announcement. Winsorized at the 1% and 99% levels. Industry classification is based on the 3-digit SIC code. Sources: SDC and COMPUSTAT.
Leader Industry Discussion	A dummy variable set to one if, up to 30 days prior to an incumbent firm's quarterly earnings announcement, an industry leader announces quarterly earnings and the MD&A section of the leader's 10Q filing contains industry-related discussions, and zero otherwise. We also require that at least one IPO is filed but not completed in the industry at the time of a leader's quarterly earnings announcement. Source: SEC Edgar.
Leader Negative EM	A dummy variable set to one if, up to 30 days prior to an incumbent firm's quarterly earnings announcement, the announced quarterly earnings of an industry leader in its industry results a negative "*EM*", and zero otherwise. When more than one industry leader announces earnings during this period, the variable is set to one if the average of their "*EM*" is negative. Source: IBES.
Leader Pessimistic Tone	A dummy variable set to one if, up to 30 days prior to an incumbent firm's quarterly earnings announcement, an industry leader announces quarterly earnings and the tone of the industry-related discussions in the MD&A section of the leader's 10Q filing is below median, and zero otherwise. We also require that at least one IPO is filed but not completed in the industry at the time of a leader's quarterly earnings announcement. Source: SEC Edgar.
Leverage	Total liabilities divided by total assets. Winsorized at the 1% and 99% levels. Source: COMPUSTAT.
Managerial Forecast	The difference between manager's forecasted quarterly earnings and analyst consensus forecasts, scaled by the share price at the beginning of the quarter. Winsorized at the 1% and 99% levels. Source: IBES.

Market Share Growth	Sales growth minus the industry-year mean sales growth where industry classification is based on the 3-digit SIC code. Source: COMPUSTAT.
Miss (Analyst)	A dummy variable set to one if an incumbent firm misses quarterly analysts' consensus forecast and zero otherwise. Source: IBES.
Miss (Management)	A dummy variable set to one if an incumbent firm misses quarterly managerial forecast, and zero otherwise. Source: IBES.
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.
Pre-IPO Incumbents' EM	The average quarterly earnings management by incumbent firms in the same 3-digit SIC industry during an IPO firm's filing period. Winsorized at the 1% and 99% levels. Source: COMPUSTAT and SDC.
Pre-IPO Industry Book to Market (Cash Flow, Leverage, Size, Sales Growth)	The average of book to market ratio (operating cash flows scaled by average total assets, leverage, total assets, 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 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.
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 IPO Dummy	A dummy variable set to one if at least one IPO is filed in the previous quarter but no IPO filing in the contemporaneous quarter when the incumbent firm announces its quarterly earnings, and zero otherwise. Sources: SDC and IBES.
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.
Tone of 10Q Filings	The difference between the number of positive words and the number of negative words, scaled by total number of words in the 10Q filings or industry related discussions in the 10Q filings' MD&A sections. Winsorized at the 1% and 99% levels. Source: WRDS SEC Analytics and SEC Edgar.
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 1991-2017. The unit of analysis is incumbent firm-quarter observations. Variable description and data sources are in the Appendix.

Variable	# of obs.	Mean	Median	Std. Dev.
EM	188,069	-0.18	-0.16	3.63
Size	188,069	6.41	6.27	1.76
Total Assets ($MM)	188,069	3,980.26	526.07	20,286.18
Book to Market	188,069	0.5	0.42	0.35
Leverage	188,069	0.47	0.48	0.21
Sales Growth	188,069	0.06	0.03	0.25
Cash Flow	188,069	2.27	2.48	4.62
ROA	188,069	0.77%	1.28%	3.84%
Industry Book to Market	188,069	0.5	0.47	0.18
# of Analysts	188,069	3.821	1	5.787
# of Senior	188,069	2.168	0	3.529
% of Senior	188,069	0.565	0.551	0.291
# of Meet or Beat	188,069	2.767	3	1.313
Full Sample				
# of IPOs (in log form)	188,069	0.5	0	0.83
# of IPOs	188,069	1.91	0	5.69
IPO Volume (in log form)	188,069	1.7	0	2.55
IPO Volume ($MM)	188,069	140.7	0	466.2
Incumbent-Quarters with IPOs				
# of IPOs (in log form)	64,962	1.44	1.1	0.79
# of IPOs	64,962	5.54	2	8.58
IPO Volume (in log form)	64,962	4.92	5.13	1.72
IPO Volume ($MM)	64,962	407.2	168.5	721.5

Table 1 continued.

Panel B: IPO Characteristics

The sample period is 1991-2017. The unit of analysis is IPO firm observations. Variable description and data sources are in the Appendix.

Variable	Observations	Mean	Median	Std. Dev.
Offer Price	3,878	12.47	12	5.27
Proceeds ($MM)	3,878	88.73	40.5	454.37
Offer Price Revision	3,878	0.01	0	0.18
Proceeds Revision	3,878	0.03	0	0.39
Frequency of Amendments	3,878	3.01	3	2.2
Probability of Withdrawal	4,744	0.2	0	0.4
Filing Period Duration (# of days)	3,878	91.34	69	74.66
High Underwriter Reputation	3,878	0.64	1	0.48
VC Back	3,878	0.56	1	0.5
Pre-IPO Market Return	3,878	0.04	0.03	0.06

Panel C: Univariate Comparison

The sample period is 1991-2017. The unit of analysis is incumbent firm-quarter observations. We restrict the sample to industry-quarters that have at least one IPO. We then compute the means and medians of "*EM*" of incumbents in quarters when their announcement dates do not overlap with the IPO filing period (i.e., "*# of IPOs*" = 0) and in quarters when their announcement dates overlap with the IPO filing window (i.e., "*# of IPOs*" > 0). The *p*-values of T-statistics testing the difference in mean (one-tail) and Mann-Whitney test for the difference in median are in the parenthesis. ***, **, and * indicate statistical significance at the 1%, 5% and 10% levels, respectively.

	Observations	Mean	Median	Std. Dev.
# of IPOs = 0	32,822	-0.14	-0.13	3.53
# of IPOs > 0	64,963	-0.18	-0.23	4
Difference		0.04*	0.1***	
p-value		(0.062)	(0.001)	

Table 2: Incumbents' Earnings Management during Peers' IPO

The sample period is 1991-2017. The unit of analysis is incumbent firm-quarter observations. The dependent variable is "*EM*" in columns 1-4, and "*Downward EM*" in columns 5-8. All models include a constant and fixed effects as described in the table whose coefficients are not tabulated. Detailed definition of variables is 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)	(5)	(6)	(7)	(8)
# of IPOs	-0.147***		-0.340***		-0.161***		-0.250***	
	(0.015)		(0.033)		(0.017)		(0.033)	
IPO Volume		-0.024***		-0.079***		-0.026***		-0.059***
		(0.004)		(0.009)		(0.004)		(0.009)
Size	0.201***	0.201***	0.221***	0.221***	0.336***	0.336***	0.344***	0.344***
	(0.008)	(0.008)	(0.008)	(0.008)	(0.009)	(0.009)	(0.010)	(0.010)
Book to Market	-0.008	-0.007	-0.046	-0.033	0.249***	0.250***	0.226***	0.235***
	(0.029)	(0.029)	(0.028)	(0.028)	(0.031)	(0.031)	(0.032)	(0.032)
Leverage	-0.262***	-0.257***	-0.332***	-0.309***	-0.616***	-0.610***	-0.652***	-0.635***
	(0.054)	(0.054)	(0.055)	(0.056)	(0.065)	(0.065)	(0.068)	(0.069)
Sales Growth	1.874***	1.871***	1.819***	1.816***	0.634***	0.631***	0.579***	0.577***
	(0.067)	(0.067)	(0.065)	(0.065)	(0.056)	(0.056)	(0.059)	(0.059)
Cash Flow	-0.653***	-0.653***	-0.687***	-0.687***	-0.363***	-0.362***	-0.381***	-0.380***
	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)
Industry Book to Market	-0.587***	-0.551***			-0.435***	-0.394***		
	(0.064)	(0.064)			(0.069)	(0.069)		
Quarter FE	Yes	Yes	No	No	Yes	Yes	No	No
Industry FE	Yes	Yes	No	No	Yes	Yes	No	No
Industry × Quarter FE	No	No	Yes	Yes	No	No	Yes	Yes
Observations	188,069	188,069	188,069	188,069	188,069	188,069	188,069	188,069
R-squared	0.635	0.635	0.696	0.696	0.33	0.33	0.454	0.453

Table 3: Accrual Reversal

The sample period is 1991-2017. The unit of analysis is incumbent firm-quarter observations. The dependent variable is "*EM*" in columns 1-3, and "*Downward EM*" in columns 4-6. For columns 1 and 4, "*Post IPO Dummy*" is a dummy variable equal to one if at least one IPO filing in the previous quarter but no IPO filed in the current quarter, and zero otherwise. For the rest of columns, this variable is set to one if at least one firm has filed for IPO in the previous quarter and zero otherwise. Detailed definition of variables is in the Appendix. All models include a constant and fixed effects as described in the table whose 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)
Post IPO Dummy	0.055**	0.153***	0.125***	0.075***	0.189***	0.170***
	(0.028)	(0.024)	(0.024)	(0.029)	(0.026)	(0.026)
# of IPOs		-0.373***			-0.290***	
		(0.032)			(0.032)	
IPO Volume			-0.086***			-0.069***
			(0.009)			(0.009)
Size	0.221***	0.219***	0.219***	0.344***	0.341***	0.341***
	(0.008)	(0.008)	(0.008)	(0.010)	(0.010)	(0.010)
Book to Market	-0.006	-0.043	-0.030	0.255***	0.229***	0.239***
	(0.029)	(0.028)	(0.028)	(0.033)	(0.032)	(0.032)
Leverage	-0.257***	-0.322***	-0.300***	-0.596***	-0.639***	-0.623***
	(0.059)	(0.055)	(0.056)	(0.070)	(0.068)	(0.068)
Sales Growth	1.809***	1.823***	1.820***	0.572***	0.584***	0.581***
	(0.065)	(0.066)	(0.065)	(0.059)	(0.059)	(0.059)
Cash Flow	-0.686***	-0.687***	-0.687***	-0.380***	-0.381***	-0.381***
	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)
Industry × Quarter FE	Yes	Yes	Yes	Yes	Yes	Yes
Observations	188,069	188,069	188,069	188,069	188,069	188,069
R-squared	0.695	0.696	0.696	0.453	0.454	0.454

Table 4: Alternative Venues to Mitigate Competitive Threat

The sample period is 1993-2017 (columns 1-2), 1995-2017 (columns 3-4), 2001-2017 (columns 5-6) in Panel A, and is 1991-2017 in Panel B. The unit of analysis is quarterly management forecast observations in columns 1-2 of Panel A and is incumbent firm-quarter observations in columns 3-6 of Panel A and Panel B. In columns 1-2 of Panel A, the dependent variable is "*Managerial Forecast*". Control variables are lagged for one quarter. In columns 3-6 of Panel A, the dependent variable is "*Tone of 10Q Filings*". This variable is constructed for the entire 10Q filings in columns 3-4 and for industry-related discussions in the MD&A sections of 10Q filings in columns 5-6. In Panel B, the dependent variable is "*Abnormal Production Costs*" in columns 1-2, "*Abnormal Discretionary Expenses*" in columns 3-4, and "*EM*" in columns 5-6. All models include a constant, a set of control variables (identical to those in Table 2), and fixed effects as described in the table whose coefficients are not tabulated. Robust standard errors clustered at firm level (columns 1-4 of Panel A and Panel B) and at industry level (columns 5-6 of Panel A) are in the parenthesis. ***, **, and * indicate statistical significance at the 1%, 5% and 10% levels, respectively.

Panel A: Management Voluntary Disclosure and Tone of 10Q Filings

Dependent Variable:	Managerial Forecast		Tone of 10Q Filings			
	(1)	(2)	(3)	(4)	(5)	(6)
# of IPOs	-0.062***		-0.091***		-0.183**	
	(0.017)		(0.024)		(0.087)	
IPO Volume		-0.014***		-0.028***		-0.044**
		(0.005)		(0.007)		(0.019)
Control Variables	Yes	Yes	Yes	Yes	Yes	Yes
Industry × Quarter FE	Yes	Yes	Yes	Yes	Yes	Yes
Observations	21,211	21,211	126,416	126,416	22,368	22,368
R-squared	0.405	0.405	0.276	0.276	0.237	0.237

Panel B: Real vs Accruals-based Earnings Management

Dependent Variable:	Abnormal Production Costs		Abnormal Discretionary Expenses		EM	
	(1)	(2)	(3)	(4)	(5)	(6)
# of IPOs Before	-0.011***		0.011***		-0.115***	
	(0.002)		(0.002)		(0.032)	
# of IPOs After	-0.000		0.002		-0.370***	
	(0.002)		(0.002)		(0.026)	
IPO Volume Before		-0.002***		0.002***		-0.039***
		(0.001)		(0.001)		(0.009)
IPO Volume After		-0.000		0.001*		-0.082***
		(0.000)		(0.000)		(0.006)
Control Variables	Yes	Yes	Yes	Yes	Yes	Yes
Industry × Quarter FE	Yes	Yes	Yes	Yes	Yes	Yes
Observations	173,494	173,494	76,703	76,703	188,081	188,081
R-squared	0.271	0.268	0.358	0.357	0.696	0.696

Table 5: The Role of Financial Analysts

The sample period is 1991-2017. The unit of analysis is incumbent firm-quarter observations. The dependent variable is "*EM*". "*# of Analysts*" is the number of analysts covering an incumbent firm in a quarter. *"# of Seniors*" ("*% of Seniors*") is number (fraction) of senior analysts following the incumbent firm in a quarter. "*# of Meet or Beat*" is the number of times an incumbent firm meets or beats analyst consensus forecast in the past four quarters. Detailed definition of variables is in the Appendix. All models include a constant, a set of control variables (identical to those in Table 2), and fixed effects as described in the table whose 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							
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
# of IPOs × # of Analysts	0.092***							
	(0.011)							
# of IPOs × # of Seniors		0.021***						
		(0.004)						
# of IPOs × % of Seniors			0.158***					
			(0.042)					
# of IPOs × # of Meet or Beat				0.026***				
				(0.009)				
IPO Volume × # of Analysts					0.027***			
					(0.003)			
IPO Volume × # of Seniors						0.005***		
						(0.001)		
IPO Volume × % of Seniors							0.047***	
							(0.013)	
IPO Volume × # of Meet or Beat								0.007**
								(0.003)
# of IPOs	-0.422***	-0.379***	-0.418***	-0.279***				
	(0.034)	(0.033)	(0.049)	(0.026)				
IPO Volume					-0.105***	-0.090***	-0.104***	-0.098***
					(0.010)	(0.009)	(0.014)	(0.015)

# of Analysts	-0.012***				-0.013***			
	(0.002)				(0.002)			
# of Senior		-0.024***				-0.023***		
		(0.003)				(0.003)		
% of Senior			-0.017				-0.014	
			(0.041)				(0.042)	
# of Meet or Beat				0.046***				0.048***
				(0.008)				(0.008)
Control Variables	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Industry × Quarter FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	188,069	188,069	100,297	90,933	188,069	188,069	100,297	90,933
R-squared	0.697	0.697	0.732	0.737	0.696	0.696	0.732	0.737

Table 6: Short-horizon Investors, Industry Co-movement, and Hot IPO Market

The sample period is 1991-2017. The unit of analysis is incumbent firm-quarter observations. The dependent variable is "*EM*". "*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. "*Comove*" is the coefficient from regressing a firm's quarterly ROA on industry-year median ROA, lagged by one quarter. "*Hot IPO Market*" is a dummy variable set to one if the average IPO underpricing in the previous 4 months is above sample median, and zero otherwise. Detailed definition of variables is in the Appendix. All models include a constant, a set of control variables (identical to those in Table 2), and fixed effects as described in the table whose 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					
	(1)	(2)	(3)	(4)	(5)	(6)
# of IPOs × High Short-term Ownership	0.149***					
	(0.021)					
IPO Volume × High Short-term Ownership		0.044***				
		(0.007)				
# of IPOs × Comove			-0.050***			
			(0.011)			
IPO Volume × Comove				-0.014***		
				(0.003)		
# of IPOs × Hot IPO Market					-0.068***	
					(0.016)	
IPO Volume × Hot IPO Market						-0.021***
					(0.005)	(0.006)
# of IPOs	-0.394***		-0.306***	-0.310***		
	(0.033)		(0.033)	(0.033)		
IPO Volume		-0.094***			-0.070***	-0.034***
		(0.009)			(0.009)	(0.008)
High Short-term Ownership	0.012	0.011				
	(0.019)	(0.020)				
Control Variables	Yes	Yes	Yes	Yes	Yes	Yes

Industry × Quarter FE	Yes	Yes	Yes	Yes	Yes	Yes
Observations	188,069	188,069	158,419	158,419	188,069	188,069
R-squared	0.697	0.696	0.692	0.692	0.696	0.696

Table 7: Threat of IPO

The sample period is 1991-2017. The unit of analysis is incumbent firm-quarter observations. The dependent variable is "*EM*". Detailed definition of variables is in the Appendix. All models include a constant, control variables (identical to those in Table 2), and fixed effects as described in the table whose 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		
	(1)	(2)	(3)
IPO R&D	-0.158***		
	(0.020)		
IPO Patent		-0.118***	
		(0.020)	
IPO Relative Size			-0.598***
			(0.034)
Control Variables	Yes	Yes	Yes
Industry × Quarter FE	Yes	Yes	Yes
Observations	188,069	139,262	188,069
R-squared	0.696	0.694	0.697

Table 8: Mechanisms – Valuation Multiple

The sample period is 1991-2017. The unit of analysis is incumbent firm-quarter observations. The dependent variable is "Δ *P/E*" in Panel A and columns 7-10 of Panel B and is "*Miss* (*Analysts*)" (columns 1-2), "*Miss* (*Management*)" (columns 3-4) and "*Earnings Surprise*" (columns 5-6) in Panel B. "Δ *P/E*" is calculated as the difference between P/E ratios over the $[t-3, t+3]$ window surrounding a quarterly earnings announcement. P/E ratio at day $t-3$ $(t+3)$ is as the stock price at day $t-3$ $(t+3)$, divided by the last analyst consensus forecasted earnings per share prior to day $t-3$ $(t+3)$. Control variables in columns 1-2 of Panel A include "Δ *Size*", "Δ *Leverage*", "Δ *Sales Growth*", and "Δ *Cash Flow*", which are the differences in "*Size*", "*Leverage*", "*Sales Growth*", and "*Cash Flow*" between the current quarter and previous quarter, respectively. In columns 3-4 of Panel A and columns 7-10 of Panel B, we control, additionally, "Δ *Industry Book to Market*". In column 7 we replace "Δ *Cash Flow*" with "*Cash Flow*". Control variables in columns 1-6 of Panel B include "*Size*", "*Book to Market*", "*Leverage*", "*Sales Growth*", and "*Cash Flow*". Detailed definition of variables is in the Appendix. Industry is a firm's 3-digit SIC code. Robust standard errors reported in the parenthesis are clustered at firm level. ***, **, and * indicate statistical significance at the 1%, 5% and 10% levels, respectively.

Panel A: Incumbent's Valuation Multiple

Dependent Variable	Δ P/E			
	(1)	(2)	(3)	(4)
# of IPOs	-4.432***		-4.473***	
	(0.676)		(0.678)	
IPO Volume		-1.203***		-1.215***
		(0.208)		(0.209)
Control Variables	Yes	Yes	Yes	Yes
Quarter FE	Yes	Yes	Yes	Yes
Observations	125,303	125,303	121,661	121,661
R-squared	0.050	0.049	0.049	0.048

Table 8 continued.

Panel B: What Affect the Incumbent Firm's P/E Multiple?

Dependent Variable:	Miss (Analysts)		Miss (Management)		Earnings Surprise		Δ P/E			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
# of IPOs	0.059***		0.118***		-0.144***					
	(0.010)		(0.025)		(0.000)					
IPO Volume		0.014***		0.029***		-0.036**				
		(0.003)		(0.007)		(0.000)				
EM							0.081***			
							(2.998)			
Miss (Analysts)								-0.998***		
								(0.116)		
Miss (Management)									-0.761**	
									(0.303)	
Earnings Surprise										0.370***
										(0.065)
Control Variables	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Quarter FE	No	No	No	No	No	No	Yes	Yes	Yes	Yes
Industry × Quarter FE	Yes	Yes	Yes	Yes	Yes	Yes	No	No	No	No
Observations	94,004	94,004	13,742	13,742	94,004	94,004	19,944	19,944	2,030	17,770
R-squared	0.229	0.228	0.410	0.409	0.187	0.187	0.011	0.012	0.040	0.012

Table 9: Mechanisms – Forecast Revision, Industry Return, Media Sentiment, and Industry Leaders

The sample period is 1991-2017 for Panel A and columns 1-4 of Panel C, and is 2000-2017 for Panel B and columns 5-6 of Panel C. The dependent variable is "*Analyst Forecast Revision*" (columns 1-2) and "*Industry Return*" (columns 3-6) in Panel A, "*ACSS*" in Panel B, and "*EM*" (columns 1-4) and "*Industry Discussion*" (columns 5-6) in Panel C. Control variables include "*Cash Flow*", "*Size*", "*Sales Growth*", "*Book to Market*", and "*Leverage*", which are identical to those in Table 2. Detailed definition of variables is in the Appendix. All models include a constant, control variables, and fixed effects as described in the table whose coefficients are not tabulated. Industry is a firm's 3-digit SIC code. In Panels A and C, the unit of analysis is incumbent firm-quarter observations. Robust standard errors clustered at firm level are in the parenthesis. In Panel B, the unit of analysis is incumbent earnings announcement-IPO firm observations. Robust standard errors reported in the parenthesis are clustered at IPO firm level in columns 1-3 and at incumbent firm level in columns 4-6. ***, **, and * indicate statistical significance at the 1%, 5% and 10% levels, respectively.

Panel A: Analyst Forecast Revision and Industry Returns

Dependent Variable	Analyst Forecast Revision		Industry Return					
			Equal-weighted			Value-weighted		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
EM	0.012***	0.006***	0.523**	0.523**	0.499**	0.464*	0.475*	0.461*
	(0.001)	(0.001)	(0.236)	(0.237)	(0.236)	(0.264)	(0.265)	(0.265)
# of IPOs				0.000			0.007	
				(0.011)			(0.012)	
IPO Volume					-0.005*			-0.001
					(0.003)			(0.003)
Control Variables	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Firm FE	No	Yes	No	No	No	No	No	No
Year FE	No	Yes	No	No	No	No	No	No
Industry × Quarter FE	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
Observations	77,316	77,316	92,094	92,094	92,094	92,094	92,094	92,094
R-squared	0.19	0.202	0.103	0.103	0.103	0.074	0.074	0.074

Table 9 continued.

Panel B: Media Sentiment

Dependent Variable	ACSS					
	(1)	(2)	(3)	(4)	(5)	(6)
EM	4.931***	1.815**	1.575*	4.931***	1.815**	1.575**
	(1.599)	(0.880)	(0.823)	(0.869)	(0.721)	(0.730)
Control Variables	Yes	Yes	Yes	Yes	Yes	Yes
Quarter FE	No	No	Yes	No	No	Yes
IPO Firm FE	No	Yes	Yes	No	Yes	Yes
Observations	12,625	12,625	12,625	12,625	12,625	12,625
R-squared	0.007	0.335	0.352	0.007	0.335	0.352

Table 9 continued.

Panel C: Leaders versus Followers

Dependent Variable	EM				Industry Discussion	
	(1)	(2)	(3)	(4)	(5)	(6)
# of IPOs × Leader Negative EM	-0.122***					
	(0.029)					
IPO Volume × Leader Negative EM		-0.039***				
		(0.010)				
# of IPOs × Leader Pessimistic Tone			-0.251*			
			(0.150)			
IPO Volume × Leader Pessimistic Tone				-0.056*		
				(0.032)		
# of IPOs × Leader Industry Discussion					0.076***	
					(0.015)	
IPO Volume × Leader Industry Discussion						0.026***
						(0.004)
Leader Negative EM	0.048	0.029				
	(0.040)	(0.047)				
Leader Pessimistic Tone			0.178	0.105		
			(0.199)	(0.156)		
Leader Industry Discussion					0.631***	0.601***
					(0.022)	(0.026)
# of IPOs	-0.261***		-0.333***		-0.068***	
	(0.033)		(0.044)		(0.007)	
IPO Volume		-0.055***		-0.073***		-0.019***
		(0.008)		(0.011)		(0.002)
Control Variables	Yes	Yes	Yes	Yes	Yes	Yes
Industry × Quarter FE	Yes	Yes	Yes	Yes	Yes	Yes
Observations	188,069	188,069	114,382	114,382	114,382	114,382
R-squared	0.696	0.696	0.693	0.692	0.424	0.424

Table 10: Do IPO Firms Suffer from Incumbents' Strategic Reporting?

The sample contains firms that went public during the 1991-2017 period. In Panel A, the unit of analysis is IPO firm observations. The dependent variables in columns 1-4 are, respectively, "*Offer Price Revision*", "*Proceeds Revision*", "*Frequency of Amendments*", and a dummy variable set to one if a firm withdraws from the IPO and zero otherwise in column 4. Columns 1-3 report the OLS regression coefficient estimates whereas column 4 reports the coefficient estimates from a probit regression. In Panel B, 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), ROA (column 3) and cash holdings (column 4), during three years after IPO. In all models, we control for "*Pre-IPO Industry Leverage*", "*Pre-IPO Industry Size*", "*Pre-IPO Industry Sales Growth*", "*Pre-IPO Industry Cash Flow*", and "*Pre-IPO Industry Book to Market*". Control variables in Panel A also include "*Proceeds*" (except for column 2), "*VC Back*", "*High Underwriter Reputation*", "*Pre-IPO Market Return*", and "*Filing Period Duration*". Control variables in Panel B also include "*Size*", "*Leverage*", "*Big 4 Auditor*", "*Book to Market*", and "*Dividend*". Detailed definition of variables is in the Appendix. All the models include a constant, control variables, and fixed effects as described in the table, but the coefficients are not tabulated. Industry is a firm's 3-digit SIC code. Robust standard errors clustered at IPO filing date in Panel A, and at IPO firm level in Panel B are in the parenthesis. ***, **, and * indicate statistical significance at the 1%, 5% and 10% levels, respectively.

Panel A: Offer Price Revision and IPO Withdrawal

Dependent Variable	Offer Price Revision	Proceeds Revision	Frequency of Amendments	Probability of Withdrawal
	(1)	(2)	(3)	(4)
Pre-IPO Incumbents' EM	0.933***	1.517***	-0.028***	-0.137***
	(0.233)	(0.547)	(0.006)	(0.026)
Control Variables	Yes	Yes	Yes	Yes
# of obs.	3,878	3,878	3,878	4,744
R-squared/Pseudo R-squared	0.078	0.059	0.415	0.413

Panel B: Post IPO Investment and Performance

Dependent Variable	CAPEX	Cash Flow	ROA	Cash Holding
	(1)	(2)	(3)	(4)
Pre-IPO Incumbents' EM	0.003**	0.016***	0.012**	-0.008*
	(0.002)	(0.005)	(0.006)	(0.005)
Control Variables	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes
Industry FE	Yes	Yes	Yes	Yes
# of obs.	5,238	5,221	5,238	5,237
R-squared	0.386	0.403	0.427	0.586

Table 11: Strategic Reporting and Incumbents' Performance

The sample period is 1991-2017. The unit of analysis is firm-year observations. We exclude firm-year observations for IPO firms up to three years after their IPO. The dependent variables are the incumbent firm's ROA in columns 1-2, cash flow in columns 3-4, and the incumbent firm's market share growth in columns 5-6, calculated as its sales growth minus the industry-year mean sales growth. "*# of Completed IPOs* (*t*-1)" is the natural logarithm of one plus the number of IPOs completed in the previous year. "*Average Pre-IPO EM*" is the average quarterly earnings management during the filing periods of all IPOs completed in the previous year. Control variables in columns 1-4 include "*Size*", "*Leverage*", "*Book to Market*" and "*Dividend*", and in columns 5-6 include "*Size*", "*Leverage*", "*Leverage* (*t*-1)", "*Leverage* (*t*-2)", "*Book to Market*", "*Book to Market* (*t*-1)", "*Book to Market* (*t*-2)", "*CAPEX*", "*Industry-Year Adjusted ROA*", "*Market Share Growth* (*t*-1)", and "*Market Share Growth* (*t*-2)". Detailed definition of variables is in the Appendix. All the models include a constant, control variables, and fixed effects as described in the table whose 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	ROA		Cash Flow		Market Share Growth	
	(1)	(2)	(3)	(4)	(5)	(6)
# of Completed IPOs (t-1)	-0.022***	-0.010***	-0.019***	-0.011***	-0.054***	-0.053***
	(0.004)	(0.004)	(0.003)	(0.003)	(0.005)	(0.010)
# of Completed IPOs (t-1) × Average Pre-IPO EM	-0.774***	-0.856***	-0.400***	-0.487***	-2.531***	-2.141***
	(0.178)	(0.164)	(0.126)	(0.115)	(0.472)	(0.705)
Control Variables	Yes	Yes	Yes	Yes	Yes	Yes
Industry Fixed Effects	Yes	No	Yes	No	Yes	No
Firm Fixed Effects	No	Yes	No	Yes	No	Yes
Year Fixed Effects	Yes	Yes	Yes	Yes	No	No
Observations	70,243	70,243	68,765	68,765	36,245	36,245
R-squared	0.523	0.773	0.434	0.744	0.022	0.250

Internet Appendix for

"Torpedo Your Competition: Strategic Reporting and Peer Firm IPO"

This online appendix contains the following:

IA.1: Alternative Measures for Strategic Reporting

IA.2: Alternative Definitions of Industry Peers

IA.3: Endogeneity of Going-Public Activity

IA.1: Alternative Measures for Strategic Reporting

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 A1 Panel A, 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). In columns 5-6, instead of accrual-based proxies, we consider the likelihood that a firm would report earnings loss (Burgstahler and Dichev 1997). As Panel A reveals, our baseline findings remain invariant.

Chen, Hribar, and Melessa (2018) find that using two-step regression procedures to estimate accrual-based earnings management can lead to biased coefficient estimates and standard errors when explanatory variables are correlated, resulting Type 1 and Type 2 errors. They suggest single-step procedures as the most basic solution to this problem. Following Chen et al. (2018) and Godsell et al. (2017), we replace discretionary accruals with total accruals as the dependent variable, and directly control in our regressions the variables used to estimate the discretionary accruals. As before, total accruals are defined as the difference between net income and cash flows from operations. Panel B shows that our findings are robust.

Alternatively, to mitigate the biases arising from the potential correlations between explanatory variables, we follow Chen et al. (2018) and for each industry-quarter, regress each independent variable in our baseline model on the same set of regressors used in the first stage to

estimate our discretionary accruals. We then replace our independent variables with the residuals of these variables and repeat our baseline regressions for "*EM*". Panel C of Table A1 reports the findings. We continue to find that incumbent firms manage earnings downwards to a greater extent when there are more industry peers that have filed but not yet completed IPOs at the time of their earnings announcement.

Discretionary accruals estimated using modified jones model contain information about firm performance (Guay, Kothari, and Watts 1996). We use Kothari et al.'s (2005) performance-adjusted discretionary accruals throughout our main analyses, which control for firm performance. This matters particularly in our setting, as it helps to better isolate the extent of downward earnings management arising from strategic motives rather than being driven by poor operating performance.

Since accruals anticipate future cash flows to produce a reliable and more timely measure of firm performance (Guay et al. 1996), we also directly control operating cash flows in our regressions. To further mitigate the concern that information about firm performance in our proxy potentially drives our findings, we calculate Francis et al.'s (2005) version of earnings management, augmenting the modified Jones model with operating cash flows (scaled by average total assets) in the prior, current, and next periods. In Panel D of Table A1, we show that our findings are robust to this alternative measure for earnings management.

Our main proxies of earnings management follow Kothari et al. (2005) and estimate the discretionary accruals based on 2-digit SIC codes. Ecker et al. (2013) compare the effectiveness of various industry and size groups in detecting discretionary accruals in terms of both scores and rankings, and show that defining industry peers using 2-digit SIC codes is more effective than industry peer groups based on 3-digit or 4-digit SIC codes. They also find that 2-digit SIC industry

peer definition performs mostly better in detecting earnings manipulation by negative-event US firms (such as restatements and AAERs). Using finer industry definitions does not significantly improve the measure but leads to a smaller sample size.

Nevertheless, we re-estimate our earnings management proxies using 3-digit SIC codes, so that the industry classification used to construct the dependent variables matches the one used for industry × quarter fixed effects that we control in the regression models. Panel E of Table A1 shows that our baseline findings are invariant to this alternative way to compute performance-based discretionary accruals.

Our measure for earnings management is based on the performance-adjusted modified Jones model, estimated at the industry-quarter level. We also check the robustness of our findings using a different benchmark for normal accruals. Ecker et al. (2013) show that firm size performs at least as well as industry membership as the criterion for selecting estimation samples. We thus follow Ecker et al. (2013) and use firm-size groups to estimate the performance-adjusted modified Jones model. Specifically, in each quarter, we categorize firms into ten groups based on deciles of average total assets. We then estimate the model by size-decile-quarter. Panel F of Table A1 reveals that our findings are robust to this alternative benchmark for normal accruals.

Overall, Table A1 indicates that our findings are robust to different proxies for earnings management, including one that does not depend on accruals. Our baseline findings also remain when we consider potential correlations among explanatory variables, and when we estimate our accrual-based earnings management using finer industry classifications or alternative benchmark for normal accruals.

IA.2: Alternative Definitions of Industry Incumbents

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 A2, a peer firm is defined according to Hoberg and Phillips' (2010) 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 A2, we find no evidence that our findings depend on the way that we classify an industry peer.

IA.3: 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. In addition, the inclusion of industry × quarter fixed effects throughout our main analyses enables us to compare reporting behaviors of incumbents in the same industry within the same quarter, removing potential confounding effects.

To mitigate any remaining doubt for endogeneity, we also perform a test exploiting the passage of the Jumpstart Our Business Startups Act (JOBS Act) on April 12, 2012. The JOBS Act is a law intended to encourage funding of all small businesses in the United States by easing many of the country's securities regulations. Nevertheless, Dambra, Field, and Gustafson (2015) show that the enactment of the JOBS Act disproportionally increased 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).[1] For this set of analyses, we restrict to the event window of 2009-2015, which is 3 years before and 3 years after the passage of the JOBS Act. Our findings remain invariant if we estimate this test using the full sample period.

Table A3 reports the results. Since we are unable to include industry × quarter fixed effects in this set of analyses, we control for, additionally, industry level book to market in columns 3 and 4. We observe that the coefficient for the interaction between the dummy variable for biotech and pharmaceutical industries and the post JOBS Act dummy is always 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.[2]

[1] 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).

[2] The main effect of the dummy for biotech/pharmaceutical industries remains when including industry fixed effects. This is because our industry classification is based on 3-digit SIC codes, whereas Dambra et al. (2015) uses a different approach to classify these industries.

Additional References

Chen, W., P. Hriber, and S. Melessa. 2018. Incorrect Inferences When Using Residuals as Dependent Variables. *Journal of Accounting Research* 46: 751-796.

Table A1: Alternative Measures for Strategic Reporting

Panel A: Alternative Proxies for Earnings Management

The sample period is 1991-2017. The unit of analysis is firm-quarter observations. 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, and a dummy variable set to one if the firm reports earnings loss. Detailed definition of variables is in the Appendix. All the models include a constant and fixed effects as described in the table whose 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	MJEM		Report Income-Decreasing Discretionary Accruals		Report Earnings Loss	
	(1)	(2)	(3)	(4)	(5)	(6)
# of IPOs	-0.218***		0.105***		0.071***	
	(0.029)		(0.017)		(0.005)	
IPO Volume		-0.030***		0.015***		0.016***
		(0.007)		(0.004)		(0.002)
Size	0.187***	0.188***	-0.122***	-0.123***	-0.039***	-0.039***
	(0.013)	(0.013)	(0.008)	(0.008)	(0.002)	(0.002)
Book to Market	-0.861***	-0.860***	-0.048	-0.049*	0.125***	0.122***
	(0.046)	(0.046)	(0.029)	(0.029)	(0.006)	(0.007)
Leverage	-2.044***	-2.036***	0.059	0.055	0.206***	0.200***
	(0.090)	(0.090)	(0.054)	(0.054)	(0.012)	(0.012)
Sales Growth	1.963***	1.958***	-1.793***	-1.790***	-0.069***	-0.068***
	(0.088)	(0.088)	(0.059)	(0.059)	(0.007)	(0.007)
Cash Flow	-0.479***	-0.479***	0.591***	0.591***	-0.030***	-0.030***
	(0.007)	(0.007)	(0.008)	(0.008)	(0.000)	(0.000)
Industry × Quarter FE	Yes	Yes	Yes	Yes	Yes	Yes
Observations	188,069	188,069	188,062	188,062	188,069	188,069
R-squared	0.282	0.281	0.345	0.345	0.289	0.287

Table A1 continued.

Panel B: Godsell et al. (2017) One-stage Regression Estimates

The sample period is 1991-2017. The unit of analysis is firm-quarter observations. The dependent variable is total accruals. For incumbent firm i in quarter t, "*PPE/TA*" is the gross property, plant, and equipment, scaled by the average total assets. "(Δ*REV*-Δ*REC*)/*TA*" is the difference between the change in revenue and the change in receivables from quarter $t-1$ to quarter t, scaled by total assets. "1/*TA*" is one divided by the average total assets. Detailed definition of variables is in the Appendix. All the models include a constant and fixed effects as described in the table whose 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	Total Accruals	
	(1)	(2)
# of IPOs	-0.499***	
	(0.047)	
IPO Volume		-0.111***
		(0.013)
Size	0.160***	0.159***
	(0.016)	(0.016)
Book to Market	-1.091***	-1.073***
	(0.047)	(0.047)
Leverage	-2.468***	-2.435***
	(0.095)	(0.095)
Sales Growth	1.209***	1.205***
	(0.096)	(0.096)
Cash Flow	-0.558***	-0.558***
	(0.008)	(0.008)
PPE/TA	-0.197***	-0.180***
	(0.054)	(0.054)
(ΔREV-ΔREC)/TA	-3.653***	-3.642***
	(0.389)	(0.391)
1/TA	-39.273***	-39.591***
	(3.917)	(3.924)
Industry × Quarter FE	Yes	Yes
Observations	188,069	188,069
R-squared	0.465	0.464

Table A1 continued.

Panel C: Chen et al. (2018) Two-stage Regression Estimates

The sample period is 1991-2017. The unit of analysis is firm-quarter observations. The dependent variable is "*EM*". For incumbent firm i in quarter t, we regress each of the independent variables on "*PPE/TA*" (calculated as the gross property, plant and equipment, scaled by the average total assets), "(Δ*REV*-Δ*REC*)/*TA*" (calculated as the difference between the change in revenue and the change in receivables from quarter $t-1$ to quarter t, scaled by total assets), and "1/*TA*" (calculated as one divided by the average total assets), and obtain the corresponding residuals. Detailed definition of variables is in the Appendix. All the models include a constant and fixed effects as described in the table whose 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	
	(1)	(2)
Residual # of IPOs	-0.085***	
	(0.022)	
Residual IPO Volume		-0.020***
		(0.006)
Residual Size	0.037***	0.037***
	(0.009)	(0.009)
Residual Book to Market	0.038*	0.041*
	(0.023)	(0.023)
Residual Leverage	-0.094**	-0.088**
	(0.044)	(0.044)
Residual Sales Growth	0.181***	0.180***
	(0.042)	(0.042)
Residual Cash Flow	-0.963***	-0.963***
	(0.003)	(0.003)
Industry × Quarter FE	Yes	Yes
Observations	188,068	188,068
R-squared	0.758	0.758

Table A1 continued.

Panel D: Francis et al.'s (2005) Estimate Controlling for Cash Flows

The sample period is 1991-2017. The unit of analysis is firm-quarter observations. The dependent variable is "*EM*" in columns 1-2, and "*Downward EM*" in columns 3-4, which we estimate following Francis et al. (2005), augmenting the modified Jones model with operating cash flows (scaled by average total assets) in the prior, current and next periods. Detailed definition of variables is in the Appendix. All the models include a constant and fixed effects as described in the table whose 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	-0.407***		-0.251***	
	(0.040)		(0.029)	
IPO Volume		-0.085***		-0.055***
		(0.011)		(0.008)
Size	0.067***	0.067***	0.190***	0.190***
	(0.011)	(0.011)	(0.007)	(0.007)
Book to Market	-0.786***	-0.767***	-0.142***	-0.131***
	(0.044)	(0.044)	(0.029)	(0.029)
Leverage	-2.238***	-2.204***	-1.410***	-1.391***
	(0.088)	(0.088)	(0.062)	(0.062)
Sales Growth	1.456***	1.452***	0.389***	0.387***
	(0.083)	(0.083)	(0.047)	(0.047)
Cash Flow	-0.081***	-0.080***	-0.003	-0.003
	(0.005)	(0.005)	(0.003)	(0.003)
Industry × Quarter FE	Yes	Yes	Yes	Yes
Observations	184,867	184,867	184,867	184,867
R-squared	0.126	0.125	0.127	0.126

Table A1 continued.

Panel E: Estimating Earnings Management Using 3-digit SIC Codes

The sample period is 1991-2017. The unit of analysis is firm-quarter observations. The dependent variable is "*EM*" in columns 1-2, and "*Downward EM*" in columns 3-4, which we estimate following Kothari et al. (2005) but use 3-digit SIC codes for industry classification. Detailed definition of variables is in the Appendix. All the models include a constant and fixed effects as described in the table whose 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	-0.295***		-0.266***	
	(0.047)		(0.037)	
IPO Volume		-0.075***		-0.069***
		(0.014)		(0.011)
Size	0.248***	0.248***	0.305***	0.304***
	(0.011)	(0.011)	(0.009)	(0.009)
Book to Market	-0.071*	-0.061	0.220***	0.229***
	(0.037)	(0.037)	(0.031)	(0.031)
Leverage	-0.536***	-0.520***	-0.645***	-0.631***
	(0.079)	(0.079)	(0.067)	(0.067)
Sales Growth	1.598***	1.596***	0.466***	0.464***
	(0.085)	(0.085)	(0.059)	(0.059)
Cash Flow	-0.674***	-0.673***	-0.336***	-0.336***
	(0.006)	(0.006)	(0.004)	(0.004)
Industry × Quarter FE	Yes	Yes	Yes	Yes
Observations	152,612	152,612	152,612	152,612
R-squared	0.520	0.520	0.369	0.369

Table A1 continued.

Panel F: An Alternative Benchmark for Normal Accruals

The sample period is 1991-2017. The unit of analysis is firm-quarter observations. The dependent variable is "*EM*" in columns 1-2, and "*Downward EM*" in columns 3-4, which we estimate the performance adjusted modified Jones model by firm-size decile-quarter. Detailed definition of variables is in the Appendix. All the models include a constant and fixed effects as described in the table whose 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	-0.317***		-0.238***	
	(0.028)		(0.029)	
IPO Volume		-0.074***		-0.056***
		(0.007)		(0.008)
Size	0.245***	0.245***	0.353***	0.353***
	(0.007)	(0.007)	(0.009)	(0.009)
Book to Market	0.006	0.018	0.397***	0.406***
	(0.026)	(0.026)	(0.030)	(0.030)
Leverage	-0.313***	-0.292***	-0.447***	-0.431***
	(0.050)	(0.051)	(0.060)	(0.060)
Sales Growth	1.755***	1.752***	0.397***	0.395***
	(0.063)	(0.063)	(0.052)	(0.052)
Cash Flow	-0.835***	-0.835***	-0.414***	-0.414***
	(0.003)	(0.003)	(0.003)	(0.003)
Industry × Quarter FE	Yes	Yes	Yes	Yes
Observations	188,069	188,069	188,069	188,069
R-squared	0.829	0.828	0.59	0.59

Table A2: Alternative Definitions of Industry Peers

The sample period is 1991-2017. The unit of analysis is firm-quarter observations. Industry classification is based on Hoberg and Phillips (2010) industry classification based on textual analysis on 10K filing in columns 1-4, 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. Detailed definition of variables is in the Appendix. All the models include a constant and fixed effects as described in the table whose coefficients are not tabulated. Robust standard errors clustered at firm level are in the parenthesis. ***, **, and * indicate statistical significance at the 1%, 5% and 10% levels, respectively.

	10-K 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	-0.367***		-0.275***		-0.246***		-0.245***		-0.066**		-0.056*	
	(0.027)		(0.021)		(0.014)		(0.015)		(0.029)		(0.032)	
IPO Volume		-0.091***		-0.067***		-0.065***		-0.060***		-0.019***		-0.017**
		(0.007)		(0.005)		(0.004)		(0.005)		(0.007)		(0.008)
Size	0.205***	0.205***	0.272***	0.273***	0.171***	0.176***	0.314***	0.319***	0.221***	0.221***	0.342***	0.342***
	(0.010)	(0.010)	(0.009)	(0.009)	(0.008)	(0.008)	(0.009)	(0.010)	(0.008)	(0.008)	(0.009)	(0.009)
Book to Market	0.007	0.021	0.255***	0.266***	0.120***	0.150***	0.321***	0.354***	-0.060**	-0.060**	0.227***	0.227***
	(0.039)	(0.039)	(0.033)	(0.033)	(0.031)	(0.030)	(0.031)	(0.031)	(0.028)	(0.028)	(0.032)	(0.032)
Leverage	-0.223***	-0.204***	-0.316***	-0.300***	0.135**	0.164***	-0.298***	-0.266***	-0.340***	-0.339***	-0.642***	-0.642***
	(0.068)	(0.068)	(0.058)	(0.058)	(0.058)	(0.058)	(0.067)	(0.067)	(0.056)	(0.056)	(0.070)	(0.070)
Sales Growth	1.776***	1.774***	0.553***	0.551***	1.779***	1.775***	0.534***	0.528***	1.804***	1.804***	0.584***	0.584***
	(0.061)	(0.061)	(0.039)	(0.039)	(0.067)	(0.067)	(0.057)	(0.057)	(0.064)	(0.064)	(0.059)	(0.059)
Cash Flow	-0.650***	-0.649***	-0.320***	-0.319***	-0.631***	-0.630***	-0.346***	-0.345***	-0.689***	-0.689***	-0.382***	-0.382***
	(0.004)	(0.004)	(0.003)	(0.003)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.005)	(0.004)
Industry × Quarter FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	140,687	140,687	140,687	140,687	188,069	188,069	188,069	188,069	188,069	188,069	188,069	188,069
R-squared	0.651	0.650	0.459	0.458	0.612	0.611	0.302	0.300	0.706	0.706	0.465	0.465

Table A3: Going-Public Activity and JOBS Act

The sample period is 2009-2015. The unit of analysis is firm-quarter observations. The dependent variable is "*EM*" in columns 1 and 3, and "*Downward EM*" in columns 2 and 4. "*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. Detailed definition of variables is in the Appendix. All the models include a constant and fixed effects as described in the table whose 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	EM	Downward EM
	(1)	(2)	(3)	(4)
Bio/Pharmaceutical	-1.553***	-2.589***	-1.523**	-2.570***
	(0.588)	(0.702)	(0.592)	(0.703)
Bio/Pharmaceutical × Post JOBS Act	-1.163***	-0.458**	-1.149***	-0.451**
	(0.150)	(0.199)	(0.149)	(0.199)
Size	0.163***	0.307***	0.162***	0.306***
	(0.011)	(0.016)	(0.011)	(0.016)
Book to Market	-0.044	0.099**	-0.024	0.113**
	(0.040)	(0.046)	(0.042)	(0.047)
Leverage	-0.271***	-0.627***	-0.256***	-0.619***
	(0.087)	(0.126)	(0.087)	(0.126)
Sales Growth	1.658***	0.444***	1.682***	0.460***
	(0.099)	(0.107)	(0.099)	(0.106)
Cash Flow	-0.675***	-0.408***	-0.673***	-0.407***
	(0.007)	(0.011)	(0.007)	(0.011)
Industry Book to Market			-0.056	-0.046
			(0.108)	(0.107)
Quarter FE	Yes	Yes	Yes	Yes
Industry FE	Yes	Yes	Yes	Yes
Observations	42,449	42,449	42,449	42,449
R-squared	0.666	0.412	0.664	0.411

about ECGI

The European Corporate Governance Institute has been established to improve *corporate governance through fostering independent scientific research and related activities.*

The ECGI will produce and disseminate high quality research while remaining close to the concerns and interests of corporate, financial and public policy makers. It will draw on the expertise of scholars from numerous countries and bring together a critical mass of expertise and interest to bear on this important subject.

The views expressed in this working paper are those of the authors, not those of the ECGI or its members.

ECGI Working Paper Series in Finance

www.ecgi.global/content/working-papers

Electronic Access to the Working Paper Series

The full set of ECGI working papers can be accessed through the Institute's Web-site (www.ecgi.global/content/working-papers) or SSRN:

Finance Paper Series	http://www.ssrn.com/link/ECGI-Fin.html
Law Paper Series	http://www.ssrn.com/link/ECGI-Law.html