# Pre-IPO Communications, Analyst Forecast Dispersion, and Post-IPO Information Uncertainty: Evidence from the 2012 JOBS Act

***Cynthia Shunyao Jin***

Eli Broad College of Business
Michigan State University
jinshuny@broad.msu.edu

***Michael D. Kimbrough***
Robert H. Smith School of Business
University of Maryland College Park
mkimbrough@rhsmith.umd.edu

***Isabel Yanyan Wang****
Eli Broad College of Business
Michigan State University
wang@broad.msu.edu

*September 2018*

* Corresponding author. We appreciate helpful comments from brownbag participants at Michigan State University, participants at the 2018 Canadian Academic Accounting Association (CAAA) annual meeting and the 2018 American Accounting Association annual meeting, Robbie Moon (discussant), and Roman Schick (discussant).

**Pre-IPO Communications, Analyst Forecast Dispersion, and Post-IPO Information Uncertainty: Evidence from the 2012 JOBS Act**


## Abstract

This study examines whether the 2012 Jumpstart Our Business Startups Act (JOBS Act) affects analyst forecast dispersion and how changes in forecast dispersion influence information uncertainty in the IPO market. The JOBS Act creates many exemptions for smaller issuers that qualify as an Emerging Growth Company (EGC) to reduce their cost of going public. One provision allows analysts affiliated with the underwriters to participate in pre-IPO communications with EGC's management and potential investors. Using a sample of 1,116 IPOs during 2004-2016, we find that EGCs experience higher dispersion in analysts' initiation forecasts, compared to similar firms that went public before the JOBS Act. This higher dispersion is mainly attributable to affiliated analysts, not unaffiliated analysts. Finally, we find that forecast dispersion among affiliated analysts is positively associated with EGCs' post-IPO stock return volatility, but not dispersion among unaffiliated analysts. Our findings indicate that the pre-IPO communications that affiliated analysts enjoy under the JOBS Act may have increased post-IPO information uncertainty for EGCs.



**Keywords:** JOBS Act, IPO, information uncertainty, analyst forecast dispersion, pre-IPO communications, post-IPO return volatility

**Data Availability:** Data are publicly available from the sources identified in the paper.

## 1. Introduction

This study examines whether the 2012 Jumpstart Our Business Startups Act (JOBS Act or the Act) affects analyst forecast dispersion and how any changes in forecast dispersion associated with the Act influence information uncertainty in the IPO market. The U.S. Congress passed the JOBS Act in 2012 to reduce the regulatory burden of going public, especially for small businesses. The JOBS Act allows issuers designated as Emerging Growth Companies (EGCs) to opt out of many accounting and executive compensation disclosure requirements of the Sarbanes-Oxley Act of 2002 and the Dodd-Frank Act of 2010.[1] Several studies examine the market impact of the JOBS Act's reduction in disclosure requirements. Dambra et al. (2015) document significantly increased IPO volume after the JOBS Act, indicating that the reduction in disclosure requirements under the Act lowered the barriers to going public, consistent with stated goals of the Act. Barth et al. (2017) show that EGCs experience larger information uncertainty after the IPO compared to similar IPO firms in the pre-JOBS Act period, which highlights the potential costs of reduced mandatory disclosure to EGC investors.[2]

Besides reduced disclosure requirements, the JOBS Act also contains provisions that permit expanded communications such as allowing analysts affiliated with the underwriters to have private communications with EGC management or potential investors before the IPO (pre-IPO communications hereafter). Unlike the provisions on the reduction in *public* disclosure, which should affect all analysts following the EGCs similarly, the Act's provision on *private* pre-IPO communications can affect analysts differently and therefore contribute to analyst forecast

[1] For example, instead of providing three years of audited financial statements, EGCs can provide only two years of audited financial statements.

[2] Our untabulated analysis shows similar findings on post-IPO return volatility after the JOBS Act to those reported by Barth et al. (2017) – EGCs experience larger post-IPO return volatility compared to similar IPO firms that would have qualified for the EGC status but went public in the pre-JOBS period.

dispersion. Prior studies show that the association between analyst forecast dispersion and information uncertainty is especially strong in the context of IPOs and seasoned equity offerings (SEOs) (Hibbert et al., 2017). As a result, our study focuses on analyst forecast dispersion because it is an important capital market construct (Liu and Natarajan 2012; Barron et al., 2009) and is directly tied to firm valuation (Diether et al. 2002). To shed light on the impact of differential access to private information permitted by the Act, we also separately examine changes in forecast dispersion among affiliated and unaffiliated analysts.[3]

We also examine the link between any changes in forecast dispersion coinciding with the JOBS Act and the increase in EGCs' post-IPO market uncertainty documented by Barth et al. (2017). While Barth et al. (2017) focus on reduced *public* disclosure requirements as the main reason for increased post-IPO market uncertainty among EGCs after the JOBS Act, we argue that it is also possible for changes in analyst forecast dispersion to affect post-IPO market uncertainty because the JOBS Act also grants affiliated analysts the privilege of *private* pre-IPO communications with EGC management. Given that the market relies heavily on analysts (Ramnath et al., 2008), any differences in analyst expectations as reflected in analyst forecast dispersion can translate into market uncertainty.

Using a sample of 1,116 U.S. IPOs between January 1, 2004 and December 31, 2016 with less than $1 billion pre-IPO annual revenue, we compare the dispersion of analysts' initiation quarterly earnings forecasts for EGCs after the Act and a sample of similar IPO firms (non-EGCs) before the Act. Non-EGCs are IPO firms that went public during the pre-JOBS Act period but would have qualified as an EGC had they done so in the post-JOBS period. We also separately

[3] Although Dambra et al., (2018) find that forecasts issued by affiliated analysts become more biased and less informative for EGCs after the JOBS Act, it remains unclear whether differential information access between affiliated and unaffiliated analysts affects the level of disagreement in their forecasts and whether such changes in disagreement affect the EGCs' information uncertainty after the IPO.

analyze the forecast dispersion among affiliated and unaffiliated analysts. We then link analyst forecast dispersion and post-IPO return volatility to examine whether forecast dispersion among affiliated analysts and that among unaffiliated analysts affect EGCs' information uncertainty similarly, after controlling for other factors.

When we regress forecast dispersion measures that capture the dispersion of initiation quarterly forecasts issued by all analysts, by only affiliated analysts, and by only unaffiliated analysts covering the EGCs on an indicator variable for the passage of the JOBS Act, we find that overall forecast dispersion is higher after the JOBS Act. However, the higher forecast dispersion is driven by affiliated analysts, not unaffiliated analysts. These findings indicate that the informational advantage enjoyed by affiliated analysts through pre-IPO communications appears to be associated with higher degree of disagreements, while analysts without such advantage do not seem to have increased disagreements. Our inferences are robust to controlling for the number of 8-K filings and the number of voluntary management forecasts provided by EGCs.

A possible explanation for our finding in the affiliated analysts is that they differ in the soft skills needed to process the qualitative and contextual information they receive during private meetings with EGC management. Consistent with this possibility, our supplemental analysis shows that variation in affiliated analysts' soft skills (measured by the number of connections on *LinkedIn*) is more positively associated with forecast dispersion in the post JOBS-Act period than in the pre-JOBS Act period. This finding suggests that diverse soft skills may play an important role in explaining the increased forecast dispersion among affiliated analysts once the JOBS Act allows them to have privileged information access to EGC management and potential investors.

To link analyst forecast dispersion to post-IPO market uncertainty, we use three measures of stock return volatility, including the standard deviations of daily returns and its idiosyncratic

and systematic components, following Barth et al. (2017). Our analyses show that after the JOBS Act only the forecast dispersion among affiliated analysts is significantly positively associated with EGCs' post-IPO return volatility. Neither the overall forecast dispersion nor is the forecast dispersion among unaffiliated analysts significantly associated with EGCs' post-IPO return volatility. More interestingly, our results show that the stronger impact of forecast dispersion among affiliated analysts on post-IPO return volatility after the JOBS Act is mainly reflected through the idiosyncratic component of return volatility, consistent with Johnson's (2004) argument that analyst forecast dispersion may proxy for idiosyncratic risk, not systematic risk.

To rule out the possibility that factors other than the pre-IPO communications drive the difference in forecast dispersion across affiliated and unaffiliated analysts, we use a sample of SEOs during the same sample period around the JOBS Act to examine whether our findings also appear in the SEO setting where affiliated analysts do not have any informational privilege. We find no changes in any of the forecast dispersion measures in the post-JOBS Act period for the SEO firms, and none of the forecast dispersion measures is positively associated with post-SEO return volatility. Evidence from the SEO setting boosts our confidence that our findings on the EGCs are likely driven by pre-IPO communications allowed by the JOBS Act.

Our inferences remain robust when we use a propensity scored matched sample of IPOs from the pre-JOBS Act period as an alternative control sample. In addition, we perform a pseudo-event analysis where we use only the EGCs within the post-JOBS Act period and compare analyst forecast dispersion before and after a pseudo-event. This analysis shows no significant difference in analyst forecast dispersion around the pseudo-event, nor is analyst forecast dispersion associated with post-IPO return volatility, regardless of analyst affiliation. Taken together, our findings indicate that allowing affiliated analysts to have private pre-IPO communications with EGCs'

management and potential investors may contribute to increased, not reduced, information uncertainty.

Our study provides several important contributions to the literature. First, it extends the literature on the consequences of the JOBS Act (Dambra et al., 2015; Dambra et al., 2018; Chaplinski et al., 2016; Barth et al., 2017; Agarwal et al., 2017). While prior research focuses primarily on the costs and benefits of the Act's reduced public disclosure requirements, our findings that forecast dispersion increases after the JOBS Act, mainly driven by affiliated analysts, and that the forecast dispersion among affiliated analysts is associated with increased post-IPO market uncertainty after the JOBS Act highlights potentially unintended consequences of the Act. Moreover, our findings complement Barth et al. (2017) by showing that, in addition to the reduction in *public* disclosure, differences in opinions among analysts with access to *private* communications also contributes to increased market uncertainty after the Act.

Second, our study expands our understanding of the capital market implications of analyst forecast dispersion, which has been the focus of extensive research (Miller 1977; Barron et al. 1998; Diether et al. 2002; Park and Stice 2000; Doukas et al. 2006; Barron et al. 2009; Li and Chen 2016; Cen et al.2016, Bailey et al., 2003; Garfinkel et al., 2006; Hibbert et al., 2017). Our finding that the impact of forecast dispersion on stock return volatility varies across different types of analysts (with vs. without informational privilege) raises the possibility of cross-sectional variation in previously documented capital market impact of analyst forecast dispersion.

Finally, our finding of increased forecast dispersion among affiliated analysts following the IPOs highlights the possibility that these analysts differ in their ability to process private information communicated by EGC management. The finding that variation in affiliated analysts' soft skills is positively associated with the dispersion in their forecasts lends further support for

this possibility. Moreover, our findings that forecast dispersion among affiliated analysts affects market uncertainty but not forecast dispersion among unaffiliated analysts indicates that the market gives greater weight to affiliated analysts (perhaps because of their privileged information access), but disagreement among affiliated analysts also generates higher uncertainty because the market may not be able to determine which affiliated analyst to rely on. Thus, it may be important for investors to consider analysts' soft skills in deciding whose forecasts to put more weight on.

The remainder of the paper proceeds as follows. Section 2 provides the background on the JOBS Act and discusses related literature. Section 3 describes the sample selection and presents descriptive statistics. Section 4 describes the research design and variable constructions. Section 5 discusses the empirical results, and Section 6 concludes.

## 2. The JOBS Act and Related Literature

The JOBS Act was signed into law on April 5, 2012, with an intention to encourage funding of small businesses. It creates a new category of IPO issuers, Emerging Growth Company (EGC). An issuer can qualify as an EGC if it has less than $1 billion annual gross revenue during the most recent fiscal year prior to its IPO. A key purpose of the JOBS Act is to eliminate the burdensome IPO disclosure requirements for EGCs to encourage more small businesses to access the capital markets publicly (Latham and Watkins, 2014; Skadden, 2016). Specifically, the JOBS Act lists a set of provisions that "de-burden" the IPO process for EGCs. For example, EGCs can file draft IPO registration statements confidentially with the SEC, provided they are filed publicly no later than 21 days before the road show. Prior to the Act, IPO issuers were prohibited from filing the draft registration statement confidentially with the SEC. EGCs can now include only two years, instead of three years, of audited financial statements in the IPO registration statement. EGCs are also allowed to disclose compensation information for only two years and only for three named

executives, instead of for three years, five named executives and along with a Compensation Discussion and Analysis (CD&A). When new or revised accounting standards become effective, EGCs can delay applying these standards. EGCs can also opt out of Section 404(b) SOX compliance for up to five years and be exempted from future auditing standards adopted by the Public Company Accounting Oversight Board (PCAOB).

Several recent studies examine the costs and benefits of reduced disclosure requirements under the JOBS Act. Consistent with the goals of the Act, Dambra et al. (2015) find that IPO activities increase after the Act, especially for firms in biotech and pharmaceutical industries that face high proprietary disclosure costs. Other studies highlight the information costs to investors of the reduced disclosure. Chaplinsky et al. (2016) and Agarwal et al. (2017) find that first-day IPO underpricing is larger after the JOBS Act. Barth et al. (2017) conclude that information uncertainty for EGCs, measured by IPO underpricing and post-IPO stock return volatility, increases after the Act, which they attribute to reduced mandatory disclosure. Barth et al. (2017) also find that EGCs attempt to mitigate the information uncertainty by increasing their voluntary disclosure through press releases, Form 8-K filings, or management earnings forecasts.

The JOBS Act also contains provisions designed to promote analyst coverage and analyst research communication with EGCs, including allowing affiliated analysts to participate in pitch meetings and due diligence sessions with EGCs' management and to interact with potential investors, as long as the investment bankers that the analysts are affiliated with are present. Dambra et al. (2018) examine the incentives of affiliated analysts who have access to pre-IPO communications. They find that these analysts tend to issue more biased and less accurate forecasts, and research reports become less informative. Unlike the provisions on the reduction in *public* disclosure, which should affect all analysts following the EGCs similarly, the Act's provision on

*private* pre-IPO communications can affect analysts differently and contribute to more diverse analyst forecasts. However, prior research has not examined whether *private* pre-IPO communications affects analyst forecast dispersion and, ultimately, market uncertainty.

This question is important because analyst forecast dispersion has significant capital market implications. Prior research has documented strong associations between analyst forecast dispersion and both market uncertainty and future expected returns (Miller 1977; Barron et al., 1998; Diether et al. 2002; Johnson, 2004; Doukas et al., 2006; Barron et al., 2009; Li and Chen, 2016; Cen et al., 2016). The association between analyst forecast dispersion and uncertainty may be stronger in the context of equity offerings. Bowen et al. (2008) examine the relation between analyst forecast properties and seasoned equity offerings (SEO) underpricing. They find that firms with higher analyst forecast dispersion tend to experience larger SEO underpricing. Hibbert et al. (2017) show that analyst forecast dispersion has significant explanatory power for firms' volatility dynamics around SEOs.

The private pre-IPO communication advantage enjoyed by affiliated analysts under the JOBS Act can contribute to analyst forecast dispersion in at least two ways. First, selective disclosure creates information asymmetry between analysts who do and do not have access to the private information. Second, analysts who have access to the private information may interpret it differently, which can lead to a lack of consensus (i.e. disagreement) among analysts. Under either possibility, analyst forecast dispersion increases because analyst forecast dispersion is positively related to both information asymmetry and disagreement. Because investors rely heavily on analysts, differing expectations among analysts can translate into a higher level of disagreement about firm value among investors if investors disagree about which analyst is most reliable. Thus, in addition to the Act's reduction in *public* disclosure requirements, it is possible that any increase

in forecast dispersion as a result of the Act's authorization of *private* communications can contribute to the increase in post-IPO market uncertainty after the JOBS Act documented by Barth et al. (2017). Therefore, we examine whether post-IPO analyst forecast dispersion is higher for EGCs after the JOBS Act than for a matched sample of IPO firms before the Act. We also separately examine changes in forecast dispersion among affiliated and unaffiliated analysts.

## 3. Sample Selection and Descriptive Statistics

From Thomson One's SDC new equity database, we extract all U.S. IPOs occurred between January 1, 2004 and December 31, 2016. Following prior literature (Lowry et al., 2010; Loughran and McDonald, 2013; Barth et al., 2017), we exclude unit offers, closed-end funds, real estate investment trusts (REITs), American depositary receipts (ADRs), and limited partnerships. We also exclude IPOs with an offer price below $5 to ensure that small illiquid stocks do not drive our results. After excluding issuers for which we cannot match stock price data from *CRSP*, financial statement information from *Compustat*, underwriter and analyst identification information from *I/B/E/S*, or firms' founding date data from Professor Jay Ritter's Founding Dates database, we end up with 1,258 IPO issuers in the sample. After further excluding 142 IPOs with pre-IPO annual revenue greater than $1 billion, our final sample includes 1,116 IPO issuers with less than $1 billion pre-IPO annual revenue. Of these IPOs, 433 occur after the JOBS Act and qualify for the EGC status, which is our treatment sample. The remaining 683 IPOs represent firms that would have qualified for the EGC status under the JOBS Act but went public before the Act. We use these IPOs as our control sample.

For the 1,116 IPO firms, we obtain analyst quarterly earnings per share (EPS) forecasts and actual earnings per share (EPS) from *I/B/E/S*. We limit the sample forecasts to those issued on the dates that analysts initiate their coverage of the IPO firm and the initiation dates occur before

the first quarterly earnings announcement by the IPO firm. We choose the initiation earnings forecasts to ensure that we can measure analyst forecast dispersion without the influence of any stale forecasts and to capture the direct impact of pre-IPO communications rather than the confounding effect of analyst herding (Bowen et al., 2008; Dambra et al., 2018).

For each IPO firm, we construct analyst forecast dispersion as the standard deviation of individual analysts' very first quarterly EPS forecasts of the first post-IPO quarter among all the analysts following the firm, scaled by the absolute value of median EPS forecast. We then construct two separate forecast dispersion measures, based on subsamples of analysts who are affiliated with the investment banker underwriting the IPOs and those who are not. We require at least two analyst forecasts to calculate forecast dispersion (Diether et al., 2002; Sadka and Scherbina, 2007). Imposing this data requirement leaves us with 853 (660, and 378) IPOs with an available measure of forecast dispersion among all (only affiliated, and only unaffiliated) analysts covering the firm.

Table 1 provides descriptive statistics for firm characteristics, IPO offer characteristics and analyst characteristics for the whole sample of 1,116 IPO firms. Table 1 shows that on average the IPO firms in this sample have total assets of $298.16 million, annual revenue of $149.00 million, and IPO proceeds of $127.97 million. Table 1 also shows that IPO firms in our sample have an average of about four financial analysts covering the firms before the firms' first post-IPO quarterly earnings announcements, with an average of 9.5 years of experience before they initiate coverage of the IPO firms. These analysts on average initiate their first quarterly earnings forecasts for the IPO firms about 54 days before the IPO firms' first quarterly earnings announcements.

## 4. Research Design

### *4.1 Does Analyst Forecast Dispersion Change after the JOBS Act?*

In this section, we examine the effect of the JOBS Act on analyst forecast dispersion, focusing on the dispersion of the first quarterly earnings forecast issued by analysts who initiate coverage of the IPO firms before the first post-IPO earnings announcements. Because the JOBS Act only grant pre-IPO communications to analysts affiliated with the EGC's IPO underwriting syndicate, it is important to investigate whether the pre-IPO communications have any differential impact on affiliated analysts compared to unaffiliated analysts. An analyst is defined as "affiliated" when she is employed by any brokerage in the issuer's underwriting syndicates, including lead managers, co-lead managers, and non-managing members as listed in the IPO prospectus. An analyst is defined as "unaffiliated" if the analyst following the issuer is not employed by any of the brokerages on the syndicate list.

Our dependent variables are analyst forecast dispersion constructed as the standard deviation of the first quarterly earnings forecasts issued by: 1) all analysts covering the IPO firm (*Dispersion_All*), 2) analysts affiliated with the underwriting investment bankers (*Dispersion_Affiliated*), and 3) analysts not affiliated with the underwriting investment bankers (*Dispersion_Unaffliated*). The standard deviations of the forecasts are then scaled by the absolute value of median earnings forecast of all analysts, affiliated analysts and unaffiliated analysts, respectively. We regress these measures on the *Post_JOBS* indicator and a set of control variables that prior research suggests are associated with analyst forecast dispersion. Specifically, we estimate the following model:

$$\begin{aligned} \textit{Forecast Dispersion}_i = {} & \beta_0 + \beta_1 * \textit{Post\_JOBS}_i + \beta_2 * \textit{Analyst Characteristics}_i \\ & + \beta_3 * \textit{Firm Characteristics}_i + \beta_4 * \textit{Voluntary Disclosure}_i \\ & + \textit{Fixed Effects} + \varepsilon_i \end{aligned} \quad (1)$$

Our coefficient of interest is $\beta_1$, which captures the differences in analyst forecast dispersion between the EGCs and the control sample. We control for analyst-specific

characteristics that may affect forecast dispersion. *LnAnalystFollowing* is the natural logarithm of the number of analysts issuing an earnings forecast for the first quarter after the IPO. *LnAnalystExperience* is the natural logarithm of the number of years an analyst has been issuing earnings forecasts before initiating coverage on the IPO firm. *LnDaysForecastTo1stEA* is the natural logarithm of the number of days between an analyst's initial quarterly earnings forecast for the IPO firm and the first post-IPO earnings announcement, averaged across all analysts covering the IPO firm.

We also include firm-specific characteristics that prior literature has shown to be correlated with analysts' forecasts of earnings, including total assets, total revenue, Tobin's Q, return on assets, leverage, incidence of losses, indicators for technology firms and venture capital-backed IPOs, and industry-, exchange-, and year- fixed effects (Bradley et al., 2003; Loughran and Ritter, 2004; Lowry et al., 2010; Loughran and McDonald, 2013; Barth et al., 2017). *Leverage* is measured as total liabilities divided by total assets as of the most recent fiscal year prior to the IPO. *Loss* is an indicator variable that equals one if the firm reported a net loss in the most recent fiscal year prior to IPO, and zero otherwise. *Tech* is an indicator variable that equals one if the IPO firm is a technology firm based on Loughran and Ritter's (2004) classification, and zero otherwise.

Further, Barth et al. (2017) document an increase in EGCs' post-IPO voluntary disclosure when mandatory disclosure reduces. If EGCs' voluntary disclosure helps reduce information uncertainty, it is not clear how analyst forecast dispersion may change. We include two proxies for the voluntary disclosure provided by EGCs between the IPO listing date and before the first post-IPO earnings announcement. *EarningsGuidance* is the number of management earnings forecasts issued by the IPO firms between the IPO date and the first post-IPO earnings

announcement date. *Filing8k* is the number of Form 8-Ks the IPO firm filed with the SEC before their first post-IPO earnings announcements.

*4.2 Do Changes in Forecast Dispersion affect Post-IPO Return Volatility after the JOBS Act?*

In this section, we examine how forecast dispersion among analysts affects EGCs' post-IPO stock return volatility after the JOBS Act. Following Barth et al. (2017), our dependent variables are three measures of post-IPO return volatility (Ritter and Welch, 2002; Lowry et al., 2010; Barth et al., 2017). The first measure, *TotVol*, measures total stock volatility and is calculated as the standard deviation of daily stock returns over the window beginning the day after the IPO and ending the day before the first post-IPO quarterly earnings announcement. The return on the date of IPO listing is excluded to mitigate the effects of the large first-day underpricing on the volatility measure (Barth et al., 2017). The second measure, *IdioVol*, measures idiosyncratic volatility and is calculated as the standard deviation of residuals from a firm-specific market model estimated over the same post-IPO window as for the measure of *TotVol*. The third measure, *SysVol*, measures systematic volatility and is calculated as the slope coefficient from a firm-specific market model estimated over the same post-IPO window as for the measure of *TotVol*. We then estimate the following model:

$$\begin{aligned} \textit{Post-IPO Return Volatility}_i = {} & \beta_0 + \beta_1 * \textit{Post\_JOBS}_i * \textit{Dispersion}_i + \beta_2 * \textit{Post\_JOBS}_i \\ & + \beta_3 * \textit{Dispersion}_i + \beta_4 * \textit{Firm Characteristics}_i \\ & + \beta_5 * \textit{Offer Characteristics}_i + \textit{Fixed Effects} + \varepsilon_i \end{aligned} \quad (2)$$

Our main interest is in the interaction terms between the *Post_JOBS* indicator and the forecast dispersion measures (*Dispersion_All*, *Dispersion_Affiliated*, and *Dispersion_Unaffiliated*). The coefficient on the interaction term captures the differences in the

impact of analyst forecast dispersion on post-IPO return volatility between the EGCs after the JOBS Act and similar IPOs before the JOBS Act.

Our control variables largely follow Barth et al. (2017), including firm-specific and IPO offer-specific characteristics. Specifically, we control for pre-IPO total assets, total annual revenue, Tobin's Q, return on assets, R&D expense, IPO proceeds, firm age, whether the firm is audited by a Big 4 auditor, indicators for technology firms and for whether the IPO is backed by a venture capital. Finally, we include exchange- and industry-fixed effects, where the industry classification follows Fama and French (1997).

We define *LnAssets* as the natural logarithm of one plus the IPO firm's total assets, where total assets are measured as of the most recent fiscal year prior to the IPO. *LnRevenue* is the natural logarithm of one plus the IPO firm's annual total revenue, where total revenue is measured as of the most recent fiscal year prior to the IPO. *LnTobin'sQ* is the natural logarithm of the IPO firm's Tobin's Q. Tobin's Q is measured as the sum of total assets and the market value of equity minus the sum of the book value of equity and IPO proceeds, scaled by total assets. We measure the market value of equity as total shares outstanding times the offer price. The book value of equity is measured as of the most recent fiscal year prior to the IPO. *ROA* is the ratio of net income to total assets as of the most recent fiscal year prior to the IPO. *Tech* is an indicator variable that equals one if the IPO firm is a technology firm based on Loughran and Ritter's (2004) classification, and zero otherwise. *LnR&D* is the natural logarithm of one plus research and development expenditures scaled by total revenue as of the most recent fiscal year prior to the IPO.

We define *LnProceeds* as the natural logarithm of one plus the total number of shares offered during IPO multiplied by the offer price per share. *LnAge* is the natural logarithm of the number of years between the IPO date and the founding date of the firm (prior to the IPO), retrieved

from Professor Jay Ritter's Founding Date database[4]. *Big4* is an indicator variable that equals one if the IPO firm is audited by a Big 4 auditor (Deloitte, EY, KPMG, or PwC), and zero otherwise. *VC_Backed* is an indicator variable that equals one if the IPO is backed by a venture capitalist, and zero otherwise.

## 5. Results

### *5.1 Univariate Analysis*

Table 2 shows the univariate differences in firm-specific characteristics, IPO offer-specific characteristics, and post-IPO return volatility across the treatment (EGC) and the control groups. Table 2 shows significant increases in total stock volatility, idiosyncratic volatility, and systematic volatility after the JOBS Act, suggest higher levels of information uncertainty. Table 2 also suggests that, during the post-JOBS period EGCs are covered by analysts with longer forecasting experience and initiating forecasts earlier after the IPOs. Compared to similar IPOs in the pre-JOBS period, EGCs are on average smaller in pre-IPO annual revenue, have higher Tobin's Q ratios, are less profitable in the most recent fiscal year prior to IPO, and more likely experienced loss prior to IPO. Finally, EGCs also have are younger, are more likely to be backed by venture capitalists, but less likely to have a Big 4 auditor (Loughran and Ritter, 2004; Lowry et al., 2010) compared to similar IPO firms in the pre-JOBS period.

### *5.2 Main Results*

Table 3 presents the results from estimating Equation (1) when we examine the impact of JOBS Act on analyst forecast dispersion. Table 3 shows that the coefficient on *Post_JOBS* is significantly positively associated with the forecast dispersion among all analysts covering the

[4] Professor Jay Ritter's Founding Date database is available at https://site.warrington.ufl.edu/ritter/ipo-data/.

firm and the forecast dispersion among affiliated analysts (*Dispersion_All and Dispersion_Affiliated*), but *not* among unaffiliated analysts (*Dispersion_Unaffiliated*). These findings suggest that while EGCs have significantly higher overall forecast dispersion than similar IPO firms in the pre-JOBS period, this increased forecast dispersion is mainly driven by affiliated analysts. One may argue that the reduced mandatory disclosure requirements for EGCs in the post-JOBS period may explain their higher analyst forecast dispersion. However, our findings of higher forecast dispersion among the affiliated analysts but *unchanged* forecast dispersion among the unaffiliated analysts indicate that the pre-IPO communications are more likely to explain the differences we observe, because both affiliated and unaffiliated analysts have equal access to EGCs' public (mandatory or voluntary) disclosure.

Panels A through C of Table 4 present results from estimating Equation (2) when we examine whether changes in analyst forecast dispersion are associated with changes in post-IPO return volatility around the JOBS Act.[5] Our focus is on the three interaction terms: *Post_JOBS * Dispersion_All*, *Post_JOBS * Dispersion_Affiliated*, and *Post_JOBS * Dispersion_Unaffiliated*. Panel A shows that the forecast dispersion among all analysts covering the EGCs is not associated with any incremental differences in post-IPO return volatility compared to similar IPOs in the pre-JOBS period. Panel B, however, shows that the forecast dispersion among affiliated analysts covering the EGCs is associated with higher total return volatility and higher idiosyncratic return volatility (but not with systematic return volatility), compared to similar IPOs in the pre-JOBS period. The (lack of) association between affiliated analysts' forecast dispersion and (systematic return volatility) idiosyncratic return volatility is also interesting of its own right, because it

[5] In an untabulated analysis, we also replicate Barth et al. (2017) by examining whether EGCs experience increased post-IPO return volatility after the JOBS Act. Our findings are consistent with Barth et al. (2017), confirming that EGCs have significantly higher post-IPO volatility relative to similar IPO firms in the pre-JOBS period.

supports Johnson's (2004) argument that analyst forecast dispersion may proxy for idiosyncratic risk, not systematic risk. Finally, Panel C shows that forecast dispersion among unaffiliated analysts covering the EGCs is *not* associated with higher post-IPO return volatility compared to similar IPOs in the pre-JOBS period.

Taken together, results in Table 4 suggest that the forecast dispersion among affiliated analysts, but the unaffiliated analysts covering the EGCs, plays an incremental role in explaining the increased post-IPO return volatility after the JOBS Act. More importantly, our findings indicate that the informational advantage of pre-IPO communications granted to affiliated analysts may contribute to increased market uncertainty for EGCs.

Our analyses so far suggest that forecast dispersion among affiliated analysts that follow EGCs is higher than the dispersion among those that follow similar IPO firms in the pre-JOBS period. Because we cannot directly observe the pre-IPO communications between affiliated analysts and EGC management or potential investors, we can only infer from these findings that the difference in forecast dispersion is driven by the pre-IPO communications that affiliated analysts have access to. Because the JOBS Act does *not* apply to issuers of seasoned equity offering (SEO), affiliated analysts do not have the same informational advantage as they do with the EGCs. Therefore, we utilize the SEOs during the same sample period as our main analyses (2004-2016) to provide a comparison against the IPOs by EGCs. Specifically, we extract from Thomson One's SDC database all SEOs in the U.S. that occur between January 1, 2004, and December 31, 2016. We impose similar criteria on the SEOs as we do on our EGC sample and identify 2,696 SEOs with pre-SEO annual revenue below $1 billion. Out of these SEOs, 1,519 occur before the JOBS Act, and 1,177 occur after. Firms with SEOs in the post-JOBS period would have qualified for EGC status had the JOBS Act also applied to SEOs. To measure analyst forecast

dispersion after the SEOs, we obtain from I/B/E/S the first quarterly earnings per share (EPS) forecast each analyst issued after the SEO date and calculate the standard deviation of these forecasts similarly to the dispersion measures used in our main analyses. We also construct return volatility measures similar to those in our main analyses. After imposing additional data requirements, we end up with 1,931 SEOs. Consistent with our main analyses, we include the same set of control variables except *VC_Backed* because SEOs rarely involve venture capitalists.

Table 5 Panel A reports the univariate comparisons in firm-specific characteristics, offer-specific characteristics, and post-SEO return volatility across the SEOs between the pre-JOBS and the post-JOBS periods. Compared to similar SEOs in the pre-JOBS period, SEOs in the post-JOBS period tend to involve firms that on average have a larger size, a higher Tobin's Q, are less profitable in the most recent fiscal year prior to SEO, and experience larger return volatility after the equity offerings. Many of these differences are similar to what we find in our IPO sample, suggesting that using SEOs as a benchmark may mitigate concerns of the economy or market-wide trends driving our findings and help us evaluate the impact of pre-IPO communications.

Panel B of Table 5 shows the impact of JOBS Act of analyst forecast dispersion for our sample of SEOs. In contrast to our findings from the IPO sample, we find that none of the coefficients on the *Post_JOBS* indicator is statistically significant, suggesting that the JOBS Act not affect the level of disagreement among analysts following the SEO firms. Panel C, Panel D, and Panel E of Table 5 report the results of our analysis focusing on the impact of analyst forecast dispersion on post-SEO return volatility. We find that there is no change in the impact of the forecast dispersion among affiliated analysts on post-SEO return volatility between the pre- and the post-JOBS periods. This finding differs from those based on our IPO sample where affiliated analysts' forecast dispersion is associated with higher post-IPO return volatility after the JOBS

Act, suggesting that our inferences from the IPO sample are unlikely driven by other confounding events or trends in the capital markets. This analysis significantly boosts our confidence that our findings are more likely due to the pre-IPO communications provision that applies to affiliated analysts under the JOBS Act.

*5.3 Robustness Tests*

In this section, we conduct several robustness tests to help strengthen the validity of our inferences. First, we rerun our analyses using a propensity score matched (PSM) control sample. This control sample includes pre-JOBS IPO firms that are similar to post-JOBS EGC firms along various observable dimensions, whereas our original control sample only matches on pre-IPO annual gross revenue. To obtain the PSM control sample, we estimate a logit model that predicts the probability of going public as a function of firm characteristics including revenue, total assets, Tobin's Q, the incidence of loss, and industry membership. Each post-JOBS EGC firm is matched (without replacement) to a single pre-JOBS IPO firm in the same Fame-French 12 industry that has the smallest absolute difference in the propensity score. This PSM control sample includes 351 firms that go public between January 1, 2004, and April 5, 2012 (i.e., the pre-JOBS period) and have less than $1 billion annual gross revenue prior to the IPO.

Univariate comparisons between the PSM control sample and the EGC sample reported in Panel A of Table 6 suggest that the two samples do not differ significantly along all the matching dimensions. Panel B of Table 6 shows the impact of JOBS Act on analyst forecast dispersion using the PSM control sample. Consistent with the results reported in Tables 3 and 4, we continue to find that the overall forecast dispersion among analysts following the IPO firms is higher in the post-JOBS period, and this effect is mainly driven by affiliated analysts, not by unaffiliated analysts. In terms of post-IPO return volatility, Panels C through E of Table 6 also report results

that are consistent with our earlier findings that the dispersion among affiliated analysts is associated with higher post-IPO information uncertainty after the JOBS Act, not that among unaffiliated analysts.

In our second robustness test, we conduct a pseudo-event analysis using only the IPOs by EGCs *within* the post-JOBS period. Specifically, we split our EGC sample of into two subsamples based on the year of IPO (2012-2013 vs. 2014-2016). We then create an indicator variable, *Post_PseudoEvent*, which is the equivalent of the *Post_JOBS* indicator in our main analysis except that it represents a pseudo-event, not the real event of the JOBS Act.

Using only post-JOBS EGC sample along with the *Post_PseudoEvent* variable, we rerun our analysis of forecast dispersion change around the pseudo-event. We compare the forecast dispersion among affiliated analysts following EGCs when these analysts all have access to private pre-IPO communications. If private pre-IPO communications drive our findings between the pre- and post-JOBS periods, we would expect to see no difference in forecast dispersion among affiliated analysts within the post-JOBS period around the pseudo-event. Table 7 reports the results of this pseudo analysis. Consistent with our expectation, we find no changes in any of our forecast dispersion measures before and after the pseudo-event, nor is there any differential impact of analyst forecast dispersion on post-IPO return volatility after the pseudo-event.[6] Results from this pseudo analysis help support our inferences that the pre-IPO communications provision under the 2012 JOBS Act is likely the reason for our observed changes in analyst forecast dispersion and the association between analyst forecast dispersion and return volatility.

[6] One possible concern for the lack of significant findings in this pseudo-analysis is that our sample size for this analysis (N=433) becomes smaller and may reduce the power of our tests. In an untabulated analysis, we also use the pre-JOBS IPOs (N=683) to conduct a similar pseudo-analysis and again we find no significant changes in either analyst forecast dispersion or the association between forecast dispersion and post-IPO return volatility.

Our final robustness test uses IPOs that are *above* the $1 billion revenue threshold both before and after the JOBS Act as an alternative control sample. These IPOs would not qualify for the EGC status either before or after the JOBS Act. Focusing on larger IPO issuers above the $1 billion threshold can also help us evaluate whether the provisions for EGCs under the JOBS Act are the main reasons behind our findings across the affiliated and unaffiliated analysts following the EGCs. This sample includes 141 IPOs, of which 76 occurred before the JOBS Act, and 65 occurred afterward. We analyze the differences in forecast dispersion among all analysts, only affiliated analysts, and only unaffiliated analysts for these IPOs between the pre- and post-JOBS periods. Untabulated results show that forecast dispersion among all analysts and among unaffiliated analysts remain unchanged, while forecast dispersion among affiliated analysts decreases after the JOBS Act. In contrast to our results reported in Table 4, we find that for these larger IPO firms analyst forecast dispersion has no incremental impact on post-IPO return volatility after the JOBS Act, regardless of which forecast dispersion measure we examine.

*5.4 Supplemental analysis*

A natural question that arises from our findings is *why* affiliated analysts have higher forecast dispersion after the JOBS Act when they have private informational access to EGC management and potential investors. It is possible that individual analysts interpret a disclosure differently if they have different priors or different information processing abilities (Kim and Verrecchia, 1991, 1994). Different prior beliefs may not be a major consideration in the IPO setting because an IPO firm is a "blank slate" to all market participants. Therefore, it is likely that affiliated analysts differ in their ability to process the information that is communicated in private pre-IPO meetings. While we cannot observe what information is disclosed in these private pre-IPO meetings, it is reasonable to expect that at least some of the disclosed information is qualitative

and contextual and may be communicated through nonverbal cues such as body language, vocal tone, and overall affect. Recent research suggests that market participants can glean information from nonverbal cues (e.g., Blankespoore, Hendricks, and Miller (2017); Mayew and Venkatachalam (2012)), suggesting that individual analysts may differ in their ability to detect and exploit the information in nonverbal cues. Such differences may be reflected in forecast dispersion among those exposed to the private information (i.e. affiliated analysts). We conjecture that analysts with demonstrated soft skills may be better able to exploit the private information access to EGCs.

To bolster our interpretation for why affiliated analysts' forecasts become more disperse after the JOBS Act, we examine whether dispersion in affiliated analysts' forecasts is associated with variations in their soft skills. Li et al. (2017) find that analysts' number of connections listed on *LinkedIn*, a proxy for social skills, is positively associated with the accuracy of their earnings forecasts and the informativeness of their stock recommendations. An analyst's number of connections can also represent his or her communication and information interpretational skills. Therefore, we use an affiliated analyst's number of *LinkedIn* connections to proxy for his or her soft skills to examine whether variations in their soft skills can explain the divergence in their earnings forecasts for the EGCs.

To empirically investigate this conjecture, we manually identify and collect the profiles of the affiliated analysts from *LinkedIn*, based on the names of the underwriters and the analysts provided in the I/B/E/S database. For each analyst profile that we locate, we go through the "title" and "experience" sections to confirm that the analyst works (worked) at the underwriter during our sample period. We then extract the number of *LinkedIn* connections for all the identified affiliated analyst and calculate the standard deviation of the number of *LinkedIn* connections among them

(*Stdv_Connections*). Because *LinkedIn* truncates the number of social connections once it exceeds 500 (listed as 500+), we use the logarithm of *Stdv_Connections* in our analysis. To examine the effect of affiliated analysts' soft skills on their forecast dispersion, we estimate the following:

$$\begin{aligned} Forecast\_Dispersion\_Affiliated_i = {} & \beta 0 + \beta 1 * Post\_JOBS_i + \beta 2 * Ln\_Stdv\_Connections \\ & + \beta 3 * Post\_JOBS_i * Ln\_Stdv\_Connections + \beta 4 * Analyst \\ & Characteristics_i + \beta 5 * Firm\ Characteristics_i \\ & + \beta 6 * Voluntary\ Disclosure_i + Fixed\ Effects + \varepsilon_i \end{aligned} \quad (3)$$

Our primary variable of interest is the interaction term between the *Post_JOBS* indicator and *Ln_Stdv_Connections*, which captures the differences in the impact of variations in affiliated analysts' soft skills on their forecast dispersion before and after the JOBS Act. Table 8 shows that variations in affiliated analysts' soft skills are positively associated with their forecast dispersion in the post JOBS period, compared to the pre-JOBS period. This finding indicates that the affiliated analysts' diverse soft skills may play an important role in explaining the higher forecast dispersion among these analysts once the JOBS Act allows them to have privileged private information access to EGCs. This evidence also implies that the informational advantage of pre-IPO communications that affiliated analysts enjoy may have the consequence of increasing disagreement among analysts.

## 6. Conclusions

This study examines whether the JOBS Act affects analyst forecast dispersion and how changes in forecast dispersion influence information uncertainty in the IPO market. While prior studies focus on the effects of the JOBS Act's reduction in *public* disclosure requirements (which affects all capital market participants similarly), the Act also permits affiliated analysts to participate in *private* pre-IPO communications, which can affect affiliated and unaffiliated analysts differently. The impact of the Act's authorization of differential access to private communications

can affect analyst forecast dispersion. Understanding the JOBS Act's effect on analyst forecast dispersion is important because forecast dispersion itself has significant capital market impacts.

For a sample of 1,116 IPOs during 2004-2016, we find that on average the dispersion of analysts' initiation quarterly earnings forecasts is higher for EGCs than for similar IPOs in the pre-JOBS period. More importantly, the higher dispersion is mainly driven by analysts who are affiliated with the underwriting investment bankers and therefore privileged with pre-IPO communications, not by unaffiliated analysts. Linking to post-IPO return volatility, we further find that the forecast dispersion among affiliated analysts is associated with significantly higher post-IPO return volatility after than before the JOBS Act, but the impact of forecast dispersion among unaffiliated analysts does not change around the JOBS Act.

In contrast, in the SEO setting where analysts do not have differential access to private information before the equity offerings, we observe no significant differences in either analyst forecast dispersion or its impact on post-SEO return volatility between the pre- and post-JOBS Act periods. Our inferences continue to hold in a set of robustness tests using a propensity score matched control sample and a pseudo-event analysis. These robustness tests further support our conclusion that the pre-IPO communications enjoyed by affiliated analysts may contribute to increased information uncertainty after the JOBS Act. Our supplemental analysis focusing on affiliated analysts' *LinkedIn* connections suggests that variations in affiliated analysts' soft skills may partly explain the increase in their forecast dispersion in the post-JOBS period.

Overall, our results show that, although the JOBS Act may help lower the cost of going public for smaller businesses that need to access the capital market, the Act could have unintended consequences. Specifically, allowing affiliated analysts to participate in pre-IPO communications with EGCs' management and potential investors appears to lead to increased post-IPO market

uncertainty among EGCs. Our findings should be of interest to regulators who want to evaluate the effectiveness and any unintended consequences of various provisions under the JOBS Act.

## References


Agarwal, S., Gupta, S., & Israelsen, R. D. (2017). Public and private Information: Firm disclosure, SEC letters, and the JOBS Act. Working paper, available at SSRN: https://ssrn.com/abstract=2891089.

Bailey, W., Li, H., Mao, C. X., & Zhong, R. (2003). Regulation Fair Disclosure and earnings information: Market, analyst, and corporate responses. *Journal of Finance*, *58*(6), 2487-2514.

Barron, O. E., Kim, O., Lim, S. C., & Stevens, D. E. (1998). Using analysts' forecasts to measure properties of analysts' information environment. *The Accounting Review*, 421-433.

Barron, O. E., Stanford, M. H., & Yu, Y. (2009). Further evidence on the relation between analysts' forecast dispersion and stock returns. *Contemporary Accounting Research*, *26*(2), 329-357.

Barth, M. E., Landsman, W. R., & Taylor, D. J. (2017). The JOBS Act and information uncertainty in IPO firms. *The Accounting Review*, 92 (6): *25-47.*

Blankespoor, E., Hendricks, B., & Miller, G. (2017) Perceptions and price: Evidence from CEO presentations at IPO roadshows. *Journal of Accounting Research,* 55 (2): 275-327.

Bowen, R. M., Chen, X., & Cheng, Q. (2008). Analyst coverage and the cost of raising equity capital: Evidence from underpricing of seasoned equity offerings. *Contemporary Accounting Research*, *25*(3), 657-700.

Bradley, D. J., Jordan, B. D., & Ritter, J. R. (2003). The quiet period goes out with a bang. *Journal of Finance*, *58*(1), 1-36.

Bradshaw, M. T., Richardson, S. A., & Sloan, R. G. (2006). The relation between corporate financing activities, analysts' forecasts and stock returns. *Journal of Accounting and Economics*, *42*(1), 53-85.

Bradshaw, M. T. (2009). Analyst information processing, financial regulation, and academic research. *The Accounting Review*, *84*(4), 1073-1083.

Cen, L., Wei, K. J., & Yang, L. (2016). Disagreement, underreaction, and stock returns. *Management Science*, *63*(4), 1214-1231.

Chaplinsky, S., Hanley, K. W., & Moon, S. K. (2017). The JOBS Act and the costs of going public. *Journal of Accounting Research*, *55*(4), 795-836.

Dambra, M., Field, L. C., & Gustafson, M. T. (2015). The JOBS Act and IPO volume: Evidence that disclosure costs affect the IPO decision. *Journal of Financial Economics*, *116*(1), 121-143.

Dambra, M., Field, L. C., Gustafson, M., & Pisciotta, K. J. (2018). The consequences to analyst involvement in the IPO process: Evidence surrounding the JOBS Act. *Journal of Accounting and Economics* 65 (2-3), 302-330.

Diether, K. B., Malloy, C. J., & Scherbina, A. (2002). Differences of opinion and the cross section of stock returns. *Journal of Finance*, *57*(5), 2113-2141.

Doukas, J. A., Kim, C. F., & Pantzalis, C. (2006). Divergence of opinion and equity returns. *Journal of Financial and Quantitative Analysis*, *41*(3), 573-606.

Fama, E. F., & French, K. R. (1997). Industry costs of equity. *Journal of Financial Economics*, *43*(2), 153-193.

Garfinkel, J. A., & Sokobin, J. (2006). Volume, opinion divergence, and returns: A study of post–earnings announcement drift. *Journal of Accounting Research*, *44*(1), 85-112.

Hibbert, A. M., Kang, Q., Kumar, A., & Mishra, S. (2017). Heterogeneous beliefs and return volatility around seasoned equity offerings. Available at SSRN: https://ssrn.com/abstract=2924041.

Johnson, T. C. (2004). Forecast dispersion and the cross section of expected returns. *Journal of Finance*, *59*(5), 1957-1978.

Kim, O., & Verrecchia, R. (1991) Trading Volume and Price Reactions to Public Announcements. *Journal of Accounting Research*, 29 (2): 302-321.

Kim, O., & Verrecchia, R. (1994). Market liquidity and volume around earnings announcements. *Journal of Accounting and Economics* 17 (1-2): 41-67.

Latham and Watkins, LLP, 2014. The JOBS Act two years later: An updated look at the IPO landscape. April 5, 2014.

Li, C., Lin, A., & Lu, H. (2017). Analyzing the Analysts: The Effect of Technical and Social Skills on Analyst Careers, *Working Paper*.

Li, L., & Chen, C. R. (2016). Analysts' forecast dispersion and stock returns: A panel threshold regression analysis based on conditional limited market participation hypothesis. *Finance Research Letters*, *18*, 100-107.

Loughran, T., & Ritter, J. (2004). Why has IPO underpricing changed over time? *Financial Management*, *33*(3), 5-37.

Loughran, T., & McDonald, B. (2013). IPO first-day returns, offer price revisions, volatility, and form S-1 language. *Journal of Financial Economics*, *109*(2), 307-326.

Lowry, M., Officer, M. S., & Schwert, G. W. (2010). The variability of IPO initial returns. *Journal of Finance*, *65*(2), 425-465.

Mayew, W., & Venkatachalam, M. (2012). The power of voice: Managerial affective states and future firm performance. *Journal of Finance*, 67(1): 1-43.

Miller, E. M. (1977). Risk, uncertainty, and divergence of opinion. *Journal of Finance*, *32*(4), 1151-1168.

Park, C. W., & Stice, E. K. (2000). Analyst forecasting ability and the stock price reaction to forecast revisions. *Review of Accounting Studies*, *5*(3), 259-272.

Ritter, J. R., & Welch, I. (2002). A review of IPO activity, pricing, and allocations. *Journal of Finance*, *57*(4), 1795-1828.

Sadka, R., & Scherbina, A. (2007). Analyst disagreement, mispricing, and liquidity. *Journal of Finance*, *62*(5), 2367-2403.

Skadden, 2016. The JOBS Act: Did it accomplish its goals? *Harvard Law School Forum on Corporate Governance and Financial Regulation.*

Soltes, E. (2014). Private interaction between firm management and sell-side analysts. *Journal of Accounting Research*, *52*(1), 245-272.

## Appendix
## Variable Definitions and Data Sources

| Variable | Definition | Source |
|---|---|---|
| *Big4* | An indicator variable that equals one if the IPO firm is audited by a Big 4 auditor (Deloitte, EY, KPMG, or PwC) and zero otherwise. | *SDC* |
| *Dispersion_All* | The standard deviation of the initial earnings forecasts for the first post-IPO quarter issued by all analysts following the IPO firm, scaled by the absolute value of the median of these forecasts. | *I/B/E/S* |
| *Dispersion_Affiliated* | The standard deviation of the initial earnings forecasts for the first post-IPO quarter issued by analysts who are affiliated with any of the underwriting investment banks on the IPO syndicate team, scaled by the absolute value of median of these forecasts. A minimum of two forecasts is required. | *I/B/E/S* |
| *Dispersion_Unaffiliated* | The standard deviation of the initial earnings forecasts for the first post-IPO quarter issued by analysts who are not affiliated with any of the underwriting investment banks on the IPO syndicate team, scaled by the absolute value of median of these forecasts. A minimum of two forecasts is required. | *I/B/E/S* |
| *EarningsGuidance* | The number of management earnings forecasts issued by the IPO firms between the IPO date and the first post-IPO quarterly earnings announcement date. | *I/B/E/S* |
| *Filing8K* | The number of Form 8-Ks the IPO firms filed between the IPO date and the first post-IPO quarterly earnings announcement date. | *EDGAR, Hand collection* |
| *IdioVol* | The standard deviation of residuals from a firm-specific market model estimated over the period between the first day after the IPO and one day before the first post-IPO earnings announcement. | *CRSP* |
| *Leverage* | Total liabilities divided by total assets, both of which are measured as of the most recent fiscal year prior to the IPO. | *Compustat* |
| *LnAge* | The natural logarithm of the number of years between the IPO date and the founding date of the firm, retrieved from Jay Ritter's Founding Dates database at https://site.warrington.ufl.edu/ritter/ipo-data/. | *Jay Ritter's IPO Founding Dates database* |
| *LnAnalystFollowing* | The natural logarithm of the number of analysts issuing an earnings forecast for the first quarter after the IPO. | *I/B/E/S* |
| *LnAnalystExperience* | The natural logarithm of the number of years an analyst has been issuing earnings forecasts before initiating the forecast for the IPO firm of interest. | *I/B/E/S detail files* |
| *LnAssets* | The natural logarithm of one plus the IPO firm's total assets, where total assets *($millions)* are measured as of the most recent fiscal year prior to the IPO. | *Compustat* |

| | | |
|---|---|---|
| *LnDaysForecastTo1stEA* | The natural logarithm of the number of days between an analyst's initial quarterly earnings forecast for the IPO firm and the first post-IPO quarterly earnings announcement, averaged across all analysts covering the firm. | *I/B/E/S* |
| *LnProceeds* | The natural logarithm of one plus the total number of shares *(millions)* offered during IPO times the offer price per share. | *SDC* |
| *LnR&D* | The natural logarithm of one plus research and development expenditures *($millions)* scaled by total revenue measured as of the most recent fiscal year prior to the IPO. | *Compustat* |
| *LnRevenue* | The natural logarithm of one plus the IPO firm's total annual revenue, where total revenue *($millions)* is measured as of the most recent fiscal year prior to the IPO. | *Compustat* |
| *LnTobin'sQ* | The natural logarithm of the IPO firm's Tobin's Q. Tobin's Q is total assets plus the market value of equity minus book value of equity minus IPO proceeds, scaled by total assets. The market value of equity is measured as the number of shares outstanding after the IPO times the offer price per share. The book value of equity is measured as of the most recent fiscal year prior to the IPO. The IPO proceeds are obtained from SDC. | *Compustat, SDC* |
| *Loss* | An indicator variable that equals one if the firm reported a net loss in the most recent fiscal year prior to IPO, and zero otherwise. | *Compustat* |
| *Post_JOBS* | An indicator variable that equals one if a firm goes public after April 5, 2012, when the JOBS Act took effect, and zero otherwise. | *SDC* |
| *Post_PseudoEvent* | An indicator variable that equals one if an EGC goes public after January 1, 2014, and zero if an EGC goes public between January 1, 2012 and December 31, 2013. | *SDC* |
| *ROA* | Return on assets, calculated as net income divided by total assets as of the most recent fiscal year prior to the IPO. | *Compustat* |
| *Ln_Stdv_Connections* | The natural logarithm of the standard deviation of the number of *LinkedIn* connections among analysts affiliated with the underwriter at the time of the IPO. | *LinkedIn* |
| *SysVol* | The slope coefficient from a firm-specific market model estimated over the period between the first day after the IPO and one day before the first post-IPO earnings announcement. | *CRSP* |
| *Tech* | An indicator variable that equals one if the IPO firm is a technology firm based on the Loughran and Ritter's (2004) classification, and zero otherwise. | *Compustat* |
| *TotVol* | The standard deviation of daily stock returns over the period between the first day after the IPO and one day before the first post-IPO earnings announcement. | *CRSP* |
| *VC_Backed* | An indicator variable that equals one if the IPO is backed by venture capital, and zero otherwise. | *SDC* |

## Table 1. Descriptive Statistics

| Variable | N | Mean | Std. Dev. | P(25) | Median | P(75) |
|---|---|---|---|---|---|---|
| Firm Characteristics: | | | | | | |
| *Assets ($millions)* | 1,116 | 298.161 | 539.934 | 35.177 | 86.966 | 303.148 |
| *Revenue ($millions)* | 1,116 | 149.985 | 184.841 | 27.499 | 78.685 | 203.442 |
| *Tobin's Q* | 1,116 | 1.996 | 2.735 | 0.805 | 1.120 | 2.271 |
| *ROA* | 1,116 | -0.269 | 0.782 | -0.360 | -0.011 | 0.044 |
| *Leverage* | 1,116 | 0.394 | 0.444 | 0.095 | 0.279 | 0.556 |
| *Loss* | 1,116 | 0.541 | 0.499 | 0.000 | 1.000 | 1.000 |
| *Tech* | 1,116 | 0.211 | 0.408 | 0.000 | 0.000 | 0.000 |
| *R&D ($millions)* | 1,116 | 5.519 | 66.353 | 0.091 | 0.211 | 0.701 |
| *EarningsGuidance* | 1,116 | 1.001 | 0.028 | 1.000 | 1.000 | 1.000 |
| *Filing8K* | 1,116 | 3.900 | 1.987 | 2.000 | 3.000 | 5.000 |
| IPO Characteristics: | | | | | | |
| *Proceeds ($millions)* | 1,116 | 127.967 | 128.741 | 56.000 | 88.000 | 150.000 |
| *Age* | 1,116 | 14.849 | 16.093 | 6.000 | 9.000 | 16.000 |
| *VC_Backed* | 1,116 | 0.515 | 0.500 | 0.000 | 1.000 | 1.000 |
| *Big4* | 1,116 | 0.648 | 0.478 | 0.000 | 1.000 | 1.000 |
| Analyst Characteristics: | | | | | | |
| *AnalystFollowing* | 1,116 | 4.106 | 1.939 | 3.000 | 4.000 | 5.000 |
| *AnalystExperience* | 1,116 | 9.445 | 4.247 | 6.333 | 9.000 | 12.000 |
| *DaysForecastTo1stEA* | 1,116 | 54.248 | 28.880 | 32.000 | 52.583 | 76.000 |

This table reports descriptive statistics for firm-, IPO-, and analyst-level characteristics during our sample period. The sample consists of 1,116 IPOs from 01/01/2004 to 12/31/2016. See the Appendix for variable definitions.

## Table 2. Univariate Comparison between Non-EGC Firms and EGC Firms

| | Pre-JOBS Pseudo-EGC Firms (N=683) | | Post-JOBS EGC Firms (N=433) | | Test of Differences EGC minus Pseudo-EGC | |
|---|---|---|---|---|---|---|
| **Variable** | **Mean** | **Median** | **Mean** | **Median** | **Mean** | **Median** |
| *Assets* | 278.062 | 99.203 | 329.806 | 71.114 | 51.744 | -28.090 ** |
| *Revenue* | 159.446 | 84.456 | 133.107 | 72.042 | -26.340 ** | -12.414 * |
| *Tobin'sQ* | 1.542 | 0.980 | 2.724 | 1.575 | 1.182 *** | 0.594 *** |
| *ROA* | -0.139 | 0.005 | -0.475 | -0.136 | -0.336 *** | -0.140 *** |
| *Leverage* | 0.361 | 0.269 | 0.450 | 0.314 | 0.089 ** | 0.045 |
| *Loss* | 0.466 | 0.000 | 0.658 | 1.000 | 0.192 *** | 1.000 *** |
| *Tech* | 0.258 | 0.000 | 0.136 | 0.000 | -0.122 *** | 0.000 |
| *R&D* | 2.208 | 0.172 | 10.352 | 0.273 | 8.144 | 0.101 *** |
| *EarningsGuidance* | 1.002 | 1.000 | 0.999 | 1.000 | -0.003 ** | 0.000 |
| *Filing8K* | 3.822 | 3.000 | 4.014 | 4.000 | 0.192 | 1.000 * |
| *Proceeds* | 131.576 | 90.217 | 122.295 | 83.850 | -9.281 | -6.367 |
| *Age* | 16.641 | 10.000 | 12.081 | 9.000 | -4.559 *** | -1.000 |
| *VC_Backed* | 0.472 | 0.000 | 0.582 | 1.000 | 0.110 *** | 1.000 *** |
| *Big4* | 0.695 | 1.000 | 0.575 | 1.000 | -0.120 *** | 0.000 |
| *AnalystFollowing* | 4.125 | 4.000 | 4.071 | 4.000 | -0.054 | 0.000 |
| *AnalystExperience* | 8.705 | 8.500 | 10.651 | 10.667 | 1.946 *** | 2.167 *** |
| *DaysForecastTo1stEA* | 50.045 | 49.857 | 61.030 | 60.800 | 10.986 *** | 10.943 *** |
| *TotVol* | 3.094 | 2.864 | 3.660 | 3.448 | 0.565 *** | 0.584 *** |
| *IdioVol* | 3.038 | 2.796 | 3.605 | 3.410 | 0.568 *** | 0.613 *** |
| *SysVol* | 0.629 | 0.574 | 0.813 | 0.693 | 0.185 *** | 0.119 |

This table reports the univariate comparisons in the means and medians of firm-, IPO-, and analyst-level characteristics during our sample period. The pseudo-EGC sample includes 683 IPOs between January 1, 2004, and April 5, 2012. IPOs in the pseudo-EGC sample are firms that go public before the JOBS Act and could have qualified for the EGC status under the JOBS Act (i.e., firms that are below the $1 billion annual revenue threshold). The EGC sample includes 433 IPOs between April 6, 2012, and December 31, 2016. IPOs in the EGC sample are firms that go public after the JOBS Act and qualify for the EGC status. A t-test is used for the sample mean comparison, and Wilcox signed rank test is used for sample median comparison. ***, **, * indicate statistical significance at the 1 %, 5% and 10% levels, respectively. See the Appendix for variable definitions.

## Table 3. Analysis of Forecast Dispersion before and after the JOBS Act

$$Forecast\ Dispersion_i = \beta_0 + \beta_1 * Post\_JOBS_i + \beta_2 * Analyst\ Characteristics_i + \beta_3 * Firm\ Characteristics_i + \beta_4 * Voluntary\ Disclosure_i + Fixed\ Effects + \varepsilon_i$$

| Variable | Dispersion_All | Dispersion_Affiliated | Dispersion_Unaffiliated |
|---|---|---|---|
| | (1) | (2) | (3) |
| ***Post_JOBS*** | **0.390** * | **1.407** *** | **-0.160** |
| | **(1.690)** | **(3.620)** | **(-0.250)** |
| *LnAnalystFollowing* | 0.112 | 0.213 | 0.734 ** |
| | (0.870) | (1.560) | (2.380) |
| *LnAnalystExperience* | 0.145 | 0.097 | -0.141 |
| | (1.530) | (1.160) | (-0.990) |
| *LnDaysForecastTo1stEA* | -0.121 * | -0.064 | 0.163 |
| | (-1.680) | (-1.040) | (1.260) |
| *LnAssets* | -0.042 | -0.065 | -0.015 |
| | (-0.850) | (-1.510) | (-0.140) |
| *LnRevenue* | 0.066 | 0.031 | 0.068 |
| | (1.580) | (0.810) | (0.640) |
| *LnTobin'sQ* | 0.021 | 0.060 | -0.172 |
| | (0.160) | (0.510) | (-0.670) |
| *ROA* | 0.062 | 0.127 | 0.061 |
| | (0.490) | (0.920) | (0.200) |
| *Leverage* | 0.110 | 0.017 | 0.146 |
| | (1.050) | (0.180) | (0.670) |
| *Loss* | 0.136 | 0.027 | 0.354 * |
| | (1.190) | (0.270) | (1.770) |
| *Tech* | -0.127 | -0.103 | -0.055 |
| | (-0.880) | (-0.810) | (-0.150) |
| *VC_Backed* | -0.127 | -0.053 | 0.174 |
| | (-1.030) | (-0.490) | (0.700) |
| *EarningsGuidance* | 2.072 | 2.562 * | -1.969 |
| | (1.060) | (1.690) | (-0.320) |
| *Filing8K* | 0.009 | 0.004 | -0.008 |
| | (0.450) | (0.190) | (-0.210) |
| **Industry/Exchange/Year Fixed Effects** | **Yes** | **Yes** | **Yes** |
| Observations | 853 | 660 | 378 |
| Adjusted R-squared | 47.26% | 59.73% | 82.56% |

This table presents the OLS regression results on the impact of JOBS Act on analyst forecast dispersion among IPO firms. We exclude IPO firms with less than two analyst forecasts because calculating forecast dispersion requires at least two forecasts. This requirement reduces our sample size to 853, 660, and 378 IPOs depending on the forecast dispersion measure we examine. Column (1) through (3) report the results when the dependent variable is the forecast dispersion among all analysts that initiate earnings forecast between the IPO date and the first post-IPO earnings announcement date (*Dispersion_All*), the forecast dispersion among only the affiliated analysts between the IPO date and the first post-IPO earnings announcement date (*Dispersion_Affiliated*) and the forecast dispersion among the unaffiliated analysts between the IPO date and the first post-IPO earnings announcement date (*Dispersion_Unaffiliated*). All regressions include industry, stock- exchange, and year fixed effects. ***, **, * indicate statistical significance at the 1 %, 5% and 10% levels, respectively. See the Appendix for variable definitions.

## Table 4. Analysis of the Impact of Forecast Dispersion on Post-IPO Return Volatility

### Panel A: Effects of Overall Analyst Forecast Dispersion

$$\textit{Post-IPO Return Volatility}_i = \beta_0 + \beta_1 * \textit{Post\_JOBS}_i * \textit{Dispersion\_All}_i + \beta_2 * \textit{Post\_JOBS}_i + \beta_3 * \textit{Dispersion\_All}_i + \beta_4 * \textit{Firm Characteristics}_i + \beta_5 * \textit{Offer Characteristics}_i + \textit{Fixed Effects} + \varepsilon_i$$

| **Variable** | **TotVol** | **IdioVol** | **SysVol** |
|---|---|---|---|
| | (1) | (2) | (3) |
| ***Post_JOBS*Dispersion_All*** | **0.080** | **0.112** | **-0.044** |
| | **(0.440)** | **(0.610)** | **(-0.340)** |
| *Post_JOBS* | 0.247 | 0.190 | 0.235 * |
| | (1.360) | (1.020) | (1.780) |
| *Dispersion_All* | 0.202 ** | 0.189 ** | 0.113 * |
| | (2.370) | (2.200) | (1.850) |
| *LnAssets* | -0.192 | -0.154 | -0.186 * |
| | (-1.410) | (-1.100) | (-1.880) |
| *LnRevenue* | -0.102 | -0.136 | -0.046 |
| | (-0.730) | (-0.940) | (-0.450) |
| *LnTobin'sQ* | 0.039 | 0.026 | -0.073 |
| | (0.210) | (0.140) | (-0.550) |
| *ROA* | 0.161 | 0.134 | 0.109 |
| | (1.370) | (1.130) | (1.300) |
| *Tech* | -0.562 *** | -0.562 *** | -0.101 |
| | (-3.110) | (-3.030) | (-0.770) |
| *LnR&D* | 0.076 | 0.066 | -0.025 |
| | (0.880) | (0.750) | (-0.400) |
| *LnProceeds* | 0.223 | 0.175 | 0.102 |
| | (1.490) | (1.130) | (0.930) |
| *LnAge* | -0.418 *** | -0.401 *** | 0.014 |
| | (-2.800) | (-2.640) | (0.130) |
| *Big4* | -0.003 | 0.015 | -0.027 |
| | (-0.020) | (0.090) | (-0.220) |
| *VC_Backed* | 0.272 | 0.289 | -0.090 |
| | (1.300) | (1.350) | (-0.600) |
| **Industry/Exchange Fixed Effects** | **Yes** | **Yes** | **Yes** |
| Observations | 853 | 853 | 853 |
| Adjusted R-squared | 24.03% | 23.62% | 8.65% |

## Table 4 (continued)
## Panel B: Effects of Affiliated Analyst Forecast Dispersion

$$\textit{Post-IPO Return Volatility}_i = \beta_0 + \beta_1 * \textit{Post\_JOBS}_i * \textit{Dispersion\_Affiliated}_i + \beta_2 * \textit{Post\_JOBS}_i + \beta_3 * \textit{Dispersion\_Affiliated}_i + \beta_4 * \textit{Firm Characteristics}_i + \beta_5 * \textit{Offer Characteristics}_i + \textit{Fixed Effects} + \varepsilon_i$$

| **Variable** | **TotVol** | **IdioVol** | **SysVol** |
|---|---|---|---|
| | (1) | (2) | (3) |
| ***Post_JOBS*Dispersion_Affiliated*** | **0.586** ** | **0.621** ** | **0.078** |
| | **(2.290)** | **(2.420)** | **(0.460)** |
| *Post_JOBS* | 0.020 | -0.051 | 0.174 |
| | (0.100) | (-0.240) | (1.220) |
| *Dispersion_Affiliated* | 0.173 | 0.148 | 0.096 |
| | (1.310) | (1.110) | (1.080) |
| *LnAssets* | -0.133 | -0.057 | -0.328 *** |
| | (-0.850) | (-0.360) | (-3.070) |
| *LnRevenue* | -0.023 | -0.112 | 0.088 |
| | (-0.140) | (-0.660) | (0.780) |
| *LnTobin'sQ* | -0.074 | -0.075 | -0.142 |
| | (-0.330) | (-0.330) | (-0.950) |
| *ROA* | -0.079 | -0.106 | 0.130 |
| | (-0.280) | (-0.370) | (0.680) |
| *Tech* | -0.485 ** | -0.458 ** | -0.180 |
| | (-2.390) | (-2.210) | (-1.310) |
| *LnR&D* | 0.057 | 0.019 | 0.026 |
| | (0.570) | (0.190) | (0.380) |
| *LnProceeds* | 0.102 | 0.055 | 0.065 |
| | (0.590) | (0.310) | (0.550) |
| *LnAge* | -0.514 *** | -0.483 *** | 0.008 |
| | (-2.870) | (-2.680) | (0.070) |
| *Big4* | 0.040 | 0.054 | 0.022 |
| | (0.200) | (0.270) | (0.160) |
| *VC_Backed* | 0.346 | 0.360 | -0.045 |
| | (1.470) | (1.510) | (-0.280) |
| **Industry/Exchange Fixed Effects** | **Yes** | **Yes** | **Yes** |
| Observations | 660 | 660 | 660 |
| Adjusted R-squared | 21.54% | 22.03% | 13.02% |

## Table 4 (continued)
## Panel C: Effects of Unaffiliated Analyst Forecast Dispersion

$$\textit{Post-IPO Return Volatility}_i = \beta_0 + \beta_1 * \textit{Post\_JOBS}_i * \textit{Dispersion\_Unaffiliated}_i + \beta_2 * \textit{Post\_JOBS}_i + \beta_3 * \textit{Dispersion\_Unaffiliated}_i + \beta_4 * \textit{Firm Characteristics}_i + \beta_5 * \textit{Offer Characteristics}_i + \textit{Fixed Effects} + \varepsilon_i$$

| Variable | TotVol | IdioVol | SysVol |
|---|---|---|---|
| | (1) | (2) | (3) |
| ***Post_JOBS*Dispersion_Unaffiliated*** | **-0.108** | **-0.126** | **0.047** |
| | **(-0.420)** | **(-0.480)** | **(0.250)** |
| *Post_JOBS* | 0.426 | 0.527 * | 0.197 |
| | (1.390) | (1.660) | (0.880) |
| *Dispersion_Unaffiliated* | 0.077 | 0.055 | 0.076 |
| | (0.770) | (0.540) | (1.070) |
| *LnAssets* | -0.137 | -0.123 | -0.175 |
| | (-0.600) | (-0.510) | (-1.040) |
| *LnRevenue* | -0.024 | -0.009 | -0.087 |
| | (-0.110) | (-0.040) | (-0.530) |
| *LnTobin's Q* | 0.196 | 0.143 | -0.225 |
| | (0.520) | (0.370) | (-0.820) |
| *ROA* | 0.311 | 0.313 | 0.240 |
| | (0.820) | (0.810) | (0.880) |
| *Tech* | -0.612 ** | -0.628 | -0.053 |
| | (-1.950) | (-1.900) | (-0.230) |
| *LnR&D* | 0.064 | 0.086 | -0.079 |
| | (0.450) | (0.600) | (-0.780) |
| *LnProceeds* | 0.066 | 0.106 | -0.259 |
| | (0.270) | (0.420) | (-1.460) |
| *LnAge* | -0.293 | -0.258 | 0.003 |
| | (-1.220) | (-1.040) | (0.020) |
| *Big4* | -0.165 | -0.095 | 0.051 |
| | (-0.540) | (-0.300) | (0.230) |
| *VC_Backed* | 0.502 | 0.672 * | -0.465 * |
| | (1.400) | (1.820) | (-1.790) |
| **Industry/Exchange Fixed Effects** | **Yes** | **Yes** | **Yes** |
| Observations | 378 | 378 | 378 |
| Adjusted R-squared | 33.00% | 34.70% | 17.95% |

This table presents the results of OLS regressions of post-IPO return volatility on analyst forecast dispersion before and after the JOBS Act. Panel A reports the analysis based on the forecast dispersion of all analysts who initiate a forecast before the first post-IPO earnings announcement date. Panel B reports the analysis based on the forecast dispersion of affiliated analysts who initiate a forecast before the first post-IPO earnings announcement date. Panel C reports the analysis based on the forecast dispersion of unaffiliated analysts who initiate a forecast before the first post-IPO earnings announcement date. All regression analyses include industry and stock exchange fixed effects. ***, **, * indicate statistical significance at the 1 %, 5% and 10% levels, respectively. See the Appendix for variable definitions.

## Table 5. Analysis of Forecast Dispersion and Return Volatility after Seasoned Equity Offerings (SEOs) around the JOBS Act

### Panel A: Univariate Comparison between Pre-JOBS SEOs and Post-JOBS SEOs

| | **Pre-JOBS SEOs** (N=1,519) | **Post-JOBS SEOs** (N=1,177) | **Test of Differences Post-JOBS minus Pre-JOBS** |
|---|---|---|---|
| **Variable** | **Mean** | **Mean** | **Difference in Means** |
| *Assets* | 380.445 | 568.528 | 188.082 *** |
| *Revenue* | 208.016 | 217.677 | 9.661 |
| *Tobin'sQ* | 0.549 | 0.586 | 0.038 * |
| *ROA* | -0.162 | -0.286 | -0.124 *** |
| *Leverage* | 0.288 | 0.307 | 0.019 * |
| *Loss* | 0.557 | 0.667 | 0.110 *** |
| *Tech* | 0.203 | 0.129 | -0.074 *** |
| *R&D* | 5.506 | 18.159 | 12.653 *** |
| *EarningsGuidance* | 1.002 | 1.002 | 0.000 |
| *Filing8K* | 4.163 | 4.169 | 0.006 |
| *Proceeds* | 89.496 | 125.269 | 35.773 *** |
| *Age* | 19.744 | 16.907 | -2.837 *** |
| *Big4* | 0.521 | 0.440 | -0.081 *** |
| *AnalystFollowing* | 4.838 | 6.013 | 1.175 *** |
| *AnalystExperience* | 7.520 | 9.712 | 2.192 *** |
| *DaysForecastTo1stEA* | 57.993 | 61.268 | 3.275 *** |
| *Dispersion_All* | 0.305 | 0.473 | 0.168 *** |
| *Dispersion_Affiliated* | 0.262 | 0.364 | 0.102 |
| *Dispersion_Unaffiliated* | 0.340 | 0.558 | 0.218 ** |
| *TotVol* | 2.966 | 3.189 | 0.223 *** |
| *IdioVol* | 2.730 | 3.008 | 0.279 *** |
| *SysVol* | 1.140 | 1.343 | 0.203 *** |

This table reports the univariate comparisons in the means and medians of firm-, SEO-, and analyst-level characteristics during our sample period. The pre-JOBS SEO sample includes 1,519 SEOs between January 1, 2004, and April 5, 2012. SEOs in the pre-JOBS period sample are firms that offer seasoned equity before the JOBS Act and have less than $1 billion annual revenue prior to SEO. The post-JOBS sample includes 1,177 SEOs between April 6, 2012, and December 31, 2016. SEOs in the post-JOBS sample are firms that offer seasoned equity after the JOBS Act and have less than $1 billion annual revenue prior to SEO. A t-test is used for sample mean comparison. ***, **, * indicate statistical significance at the 1 %, 5% and 10% levels, respectively.

## Table 5 (continued)
## Panel B: Analysis of Forecast Dispersion before and after the JOBS Act

$$Forecast\ Dispersion_i = \beta_0 + \beta_1 * Post\_JOBS_i + \beta_2 * Analyst\ Characteristics_i + \beta_3 * Firm\ Characteristics_i + Fixed\ Effects + \varepsilon_i$$

| Variable | Dispersion_All | Dispersion_Affiliated | Dispersion_Unaffiliated |
|---|---|---|---|
| | (1) | (2) | (3) |
| ***Post_JOBS*** | **0.053** | **0.215** | **-0.006** |
| | **(0.140)** | **(0.360)** | **(-0.010)** |
| *LnAnalystFollowing* | -0.204 ** | -0.240 | -0.207 |
| | (-2.010) | (-0.930) | (-1.160) |
| *LnAnalystExperience* | -0.003 | -0.003 | 0.155 |
| | (-0.030) | (-0.020) | (0.980) |
| *LnDaysForecastTo1stEA* | -0.024 | 0.009 | -0.056 |
| | (-0.270) | (0.060) | (-0.410) |
| *LnAssets* | -0.020 | -0.256 *** | -0.032 |
| | (-0.340) | (-2.710) | (-0.330) |
| *LnRevenue* | 0.042 | 0.155 ** | -0.016 |
| | (1.000) | (2.370) | (-0.230) |
| *LnTobin'sQ* | 0.176 | -0.100 | 0.058 |
| | (0.710) | (-0.300) | (0.120) |
| *ROA* | 0.228 | 0.048 | 0.440 |
| | (1.030) | (0.130) | (1.190) |
| *Leverage* | -0.138 | -0.107 | -0.169 |
| | (-0.590) | (-0.300) | (-0.420) |
| *Loss* | 0.445 *** | 0.540 *** | 0.352 * |
| | (3.840) | (3.130) | (1.760) |
| *Tech* | -0.012 | -0.173 | 0.319 |
| | (-0.070) | (-0.510) | (1.110) |
| *EarningsGuidance* | -0.107 | -0.023 | -0.232 |
| | (-0.100) | (-0.010) | (-0.120) |
| *Filing8K* | 0.081 *** | 0.056 * | 0.094 *** |
| | (3.990) | (1.740) | (2.760) |
| **Industry/Exchange/Year Fixed Effects** | **Yes** | **Yes** | **Yes** |
| Observations | 1,931 | 744 | 1,415 |
| Adjusted R-squared | 34.96% | 33.93% | 32.44% |

This table presents the OLS regression results on the impact of JOBS Act on analyst forecast dispersion for SEO firms. We exclude SEO firms with less than two analyst forecasts because calculating forecast dispersion requires at least two forecasts. This requirement reduces our sample size to 1931, 744, and 1415 SEOs depending on the forecast dispersion measure we examine. Column (1) through (3) report the results when the dependent variable is the forecast dispersion among all analysts in their first earnings forecasts after the SEO date and before first post-SEO earnings announcement date (*Dispersion_All*), the forecast dispersion among only the affiliated analysts between the SEO date and the first post-SEO earnings announcement date (*Dispersion_Affiliated*) and the forecast dispersion among the unaffiliated analysts between the SEO date and the first post-SEO earnings announcement date (*Dispersion_Unaffiliated*). All regressions include industry, stock- exchange, and year fixed effects. ***, **, * indicate statistical significance at the 1 %, 5% and 10% levels, respectively.

## Table 5 (continued)
## Panel C: Effects of Overall Analyst Forecast Dispersion on Return Volatility

$$\textit{Post-SEO Return Volatility}_i = \beta_0 + \beta_1 * \textit{Post\_JOBS}_i * \textit{Dispersion\_All}_i + \beta_2 * \textit{Post\_JOBS}_i + \beta_3 * \textit{Dispersion\_All}_i + \beta_4 * \textit{Firm Characteristics}_i + \beta_5 * \textit{Offer Characteristics}_i + \textit{Fixed Effects} + \varepsilon_i$$

| **Variable** | **TotVol** | **IdioVol** | **SysVol** |
|---|---|---|---|
| | (1) | (2) | (3) |
| ***Post_JOBS*Dispersion_All*** | **-0.290** ** | **-0.194** | **-0.147** |
| | **(-2.260)** | **(-1.450)** | **(-1.480)** |
| *Post_JOBS* | 0.357 *** | 0.331 *** | 0.321 *** |
| | (3.230) | (2.990) | (3.920) |
| *Dispersion_All* | 0.325 *** | 0.283 ** | 0.172 ** |
| | (2.790) | (2.470) | (2.030) |
| *LnAssets* | 0.030 | 0.004 | -0.041 |
| | (0.340) | (0.040) | (-0.640) |
| *LnRevenue* | -0.161 * | -0.184 ** | -0.007 |
| | (-1.920) | (-2.220) | (-0.120) |
| *LnTobin'sQ* | 0.568 *** | 0.671 *** | -0.038 |
| | (3.180) | (3.810) | (-0.290) |
| *ROA* | -0.462 ** | -0.302 | -0.416 *** |
| | (-2.370) | (-1.580) | (-2.950) |
| *Tech* | -0.181 | -0.157 | -0.173 |
| | (-1.230) | (-1.080) | (-1.610) |
| *LnR&D* | -0.030 | -0.032 | -0.017 |
| | (-0.560) | (-0.600) | (-0.440) |
| *LnProceeds* | -0.108 * | -0.125 ** | 0.128 *** |
| | (-1.680) | (-1.980) | (2.740) |
| *LnAge* | -0.127 | -0.200 ** | 0.129 * |
| | (-1.260) | (-1.990) | (1.730) |
| *Big4* | -0.082 | -0.051 | 0.037 |
| | (-0.780) | (-0.480) | (0.480) |
| **Industry/Exchange Fixed Effects** | **Yes** | **Yes** | **Yes** |
| Observations | 1,931 | 1,931 | 1,931 |
| Adjusted R-squared | 16.04% | 17.16% | 9.63% |

## Table 5 (continued)
## Panel D: Effects of Affiliated Analyst Forecast Dispersion on Return Volatility

$$\textit{Post-SEO Return Volatility}_i = \beta_0 + \beta_1 * \textit{Post\_JOBS}_i * \textit{Dispersion\_Affiliated}_i + \beta_2 * \textit{Post\_JOBS}_i + \beta_3 * \textit{Dispersion\_Affiliated}_i + \beta_4 * \textit{Firm Characteristics}_i + \beta_5 * \textit{Offer Characteristics}_i + \textit{Fixed Effects} + \varepsilon_i$$

| **Variable** | **TotVol** | **IdioVol** | **SysVol** |
|---|---|---|---|
| | (1) | (2) | (3) |
| ***Post_JOBS*Dispersion_Affiliated*** | **-0.190** | **-0.219** | **0.126** |
| | **(-1.230)** | **(-1.520)** | **(0.960)** |
| *Post_JOBS* | 0.614 *** | 0.661 *** | 0.235 * |
| | (3.960) | (4.540) | (1.770) |
| *Dispersion_Affiliated* | 0.242 * | 0.265 ** | -0.121 |
| | (1.840) | (2.140) | (-1.080) |
| *LnAssets* | -0.034 | 0.017 | -0.137 |
| | (-0.240) | (0.130) | (-1.150) |
| *LnRevenue* | -0.164 | -0.190 | 0.086 |
| | (-1.320) | (-1.620) | (0.810) |
| *LnTobin'sQ* | 0.576 ** | 0.640 *** | 0.123 |
| | (2.590) | (3.050) | (0.640) |
| *ROA* | 0.071 | 0.234 | -0.090 |
| | (0.210) | (0.750) | (-0.310) |
| *Tech* | -0.356 * | -0.299 | -0.182 |
| | (-1.780) | (-1.590) | (-1.060) |
| *LnR&D* | -0.025 | -0.018 | 0.044 |
| | (-0.310) | (-0.230) | (0.620) |
| *LnProceeds* | -0.116 | -0.214 * | 0.232 ** |
| | (-0.980) | (-1.910) | (2.280) |
| *LnAge* | -0.336 ** | -0.357 *** | -0.019 |
| | (-2.460) | (-2.740) | (-0.160) |
| *Big4* | 0.155 | 0.202 | -0.332 *** |
| | (1.050) | (1.450) | (-2.610) |
| **Industry/Exchange Fixed Effects** | **Yes** | **Yes** | **Yes** |
| Observations | 744 | 744 | 744 |
| Adjusted R-squared | 28.85% | 31.79% | 12.87% |

## Table 5 (continued)
## Panel E: Effects of Unaffiliated Analysts Forecast Dispersion on Return Volatility

$$\textit{Post-SEO Return Volatility}_i = \beta_0 + \beta_1 * \textit{Post\_JOBS}_i * \textit{Dispersion\_Unaffiliated}_i + \beta_2 * \textit{Post\_JOBS}_i + \beta_3 * \textit{Dispersion\_Unaffiliated}_i + \beta_4 * \textit{Firm Characteristics}_i + \beta_5 * \textit{Offer Characteristics}_i + \textit{Fixed Effects} + \varepsilon_i$$

| **Variable** | **TotVol** | **IdioVol** | **SysVol** |
|---|---|---|---|
| | (1) | (2) | (3) |
| ***Post_JOBS*Dispersion_Unaffiliated*** | **-0.340** * | **-0.231** | **-0.079** |
| | **(-1.900)** | **(-1.290)** | **(-0.670)** |
| *Post_JOBS* | 0.273 ** | 0.283 ** | 0.284 *** |
| | (1.970) | (2.060) | (3.130) |
| *Dispersion_Unaffiliated* | 0.374 ** | 0.297 * | 0.111 |
| | (2.210) | (1.780) | (1.010) |
| *LnAssets* | 0.070 | 0.029 | -0.020 |
| | (0.660) | (0.280) | (-0.290) |
| *LnRevenue* | -0.157 | -0.167 | -0.052 |
| | (-1.510) | (-1.650) | (-0.780) |
| *LnTobin's Q* | 0.700 *** | 0.777 *** | 0.032 |
| | (3.000) | (3.370) | (0.210) |
| *ROA* | -0.798 *** | -0.664 *** | -0.432 *** |
| | (-3.320) | (-2.830) | (-2.800) |
| *Tech* | -0.126 | -0.123 | -0.142 |
| | (-0.690) | (-0.680) | (-1.190) |
| *LnR&D* | -0.046 | -0.044 | -0.044 |
| | (-0.680) | (-0.660) | (-1.010) |
| *LnProceeds* | -0.112 | -0.112 | 0.115 ** |
| | (-1.500) | (-1.530) | (2.370) |
| *LnAge* | -0.106 | -0.224 * | 0.209 ** |
| | (-0.790) | (-1.690) | (2.380) |
| *Big4* | -0.172 | -0.129 | 0.046 |
| | (-1.310) | (-1.000) | (0.540) |
| **Industry/Exchange Fixed Effects** | **Yes** | **Yes** | **Yes** |
| Observations | 1,415 | 1,415 | 1,415 |
| Adjusted R-squared | 16.51% | 18.19% | 10.54% |

Panel C, Panel D, and Panel E present the results of OLS regressions of post-SEO return volatility on analyst forecast dispersion before and after the JOBS Act. Panel C reports the analysis based on the forecast dispersion of all analysts in their first earnings forecast after the SEO date and before the first post-SEO earnings announcement date. Panel D reports the analysis based on the forecast dispersion of affiliated analysts in their first earnings forecast after the SEO date and before the first post-SEO earnings announcement date. Panel E reports the analysis based on the forecast dispersion of unaffiliated analysts in their first earnings forecast after the SEO date and before the first post-SEO earnings announcement date. All regression analyses include industry and stock exchange fixed effects. ***, **, * indicate statistical significance at the 1 %, 5% and 10% levels, respectively.

## Table 6. Robustness Test Using a Propensity Score Matched (PSM) Sample

### Panel A: Univariate Comparison between Pre-JOBS IPOs and Post-JOBS IPOs

| PSM Sample | Pre-JOBS Pseudo-EGC Firms (N=351) | | Post-JOBS EGC Firms (N=351) | | Test of Differences EGC minus Pseudo-EGC | |
|---|---|---|---|---|---|---|
| **Variable** | **Mean** | **Median** | **Mean** | **Median** | **Mean** | **Median** |
| *LnRevenue* | 3.701 | 4.082 | 3.466 | 4.104 | -0.235 | 0.022 |
| *LnAssets* | 4.674 | 4.377 | 4.544 | 4.381 | -0.130 | 0.004 |
| *LnTobin'sQ* | 0.942 | 0.786 | 1.070 | 0.885 | 0.128 | 0.099 |
| *Loss* | 0.598 | 1.000 | 0.604 | 1.000 | 0.006 | 0.000 |
| *Tech* | 0.179 | 0.000 | 0.162 | 0.000 | -0.017 | 0.000 |

This table reports the univariate comparisons in the means and medians of firm-level characteristics used in the propensity score model. The PSM sample is constructed by estimating a logit model that predicts the probability of going public in the post-JOBS period as a function of *LnRevenue*, *LnAssets*, *LnTobin'sQ*, *Loss*, and *Tech*. Each post-JOBS EGC firm is matched (without replacement) to a single pre-JOBS IPO firm in the same Fame-French 12 industry that has the smallest absolute difference in propensity scores. The pre-JOBS pseudo-EGC sample includes 351 IPOs between January 1, 2004, and April 5, 2012. IPOs in the pre-JOBS period sample are firms that go public before the JOBS Act and have less than $1 billion annual revenue prior to IPO. The post-JOBS EGC sample also includes 351 IPOs between April 6, 2012, and December 31, 2016. IPOs in the post-JOBS sample are firms that go public after the JOBS Act and have less than $1 billion annual revenue prior to IPO. A t-test is used for sample mean comparison, and Wilcox signed rank test is used for sample median comparison. ***, **, * indicate statistical significance at the 1 %, 5% and 10% levels, respectively. See the Appendix for variable definitions.

## Table 6 (continued)
## Panel B: Analysis of Forecast Dispersion before and after the JOBS Act

$$Forecast\ Dispersion_i = \beta_0 + \beta_1 * Post\_JOBS_i + \beta_2 * Analyst\ Characteristics_i + \beta_3 * Firm\ Characteristics_i + Fixed\ Effects + \varepsilon_i$$

| PSM Sample Variable | Dispersion_All | Dispersion_Affiliated | Dispersion_Unaffiliated |
|---|---|---|---|
| | (1) | (2) | (3) |
| ***Post_JOBS*** | **0.713** * | **1.366** *** | **-2.176** |
| | **(1.850)** | **(3.300)** | **(-1.600)** |
| *LnAnalystFollowing* | 0.118 | 0.115 | 1.070 ** |
| | (0.700) | (0.620) | (2.420) |
| *LnAnalystExperience* | 0.196 | -0.027 | -0.563 |
| | (1.450) | (-0.230) | (-1.690) |
| *LnDaysForecastTo1stEA* | -0.120 | -0.056 | 0.279 |
| | (-1.240) | (-0.680) | (1.280) |
| *LnAssets* | -0.047 | -0.112 * | 0.094 |
| | (-0.710) | (-1.810) | (0.520) |
| *LnRevenue* | 0.068 | 0.052 | -0.029 |
| | (1.360) | (1.140) | (-0.170) |
| *LnTobin'sQ* | -0.059 | -0.106 | -0.432 |
| | (-0.380) | (-0.650) | (-1.010) |
| *ROA* | 0.000 | -0.150 | 0.130 |
| | (0.000) | (-0.940) | (0.300) |
| *Leverage* | 0.126 | -0.010 | 0.611 |
| | (0.970) | (-0.070) | (1.150) |
| *Loss* | 0.016 | -0.033 | -0.007 |
| | (0.110) | (-0.240) | (-0.020) |
| *Tech* | -0.198 | 0.085 | -0.529 |
| | (-1.150) | (0.550) | (-0.880) |
| *VC_Backed* | -0.006 | -0.188 | 0.369 |
| | (-0.040) | (-1.130) | (0.700) |
| *EarningsGuidance* | 2.490 | 3.888 ** | -1.969 |
| | (1.140) | (2.180) | (-0.320) |
| *Filing8K* | 0.000 | -0.001 | -0.052 |
| | (-0.010) | (-0.040) | (-0.750) |
| **Industry/Exchange/Year Fixed Effects** | **Yes** | **Yes** | **Yes** |
| Observations | 702 | 702 | 702 |
| Adjusted R-squared | 53.74% | 68.49% | 90.62% |

This table presents the OLS regression results on the impact of JOBS Act on analyst forecast dispersion among IPO firms using the propensity score matched sample. Columns (1) through (3) report the results when the dependent variable is the forecast dispersion among all analysts that initiate an earnings forecast between the IPO date and the first post-IPO earnings announcement date (Dispersion_All), the forecast dispersion among only the affiliated analysts between the IPO date and the first post-IPO earnings announcement date (Dispersion_Affiliated), and the forecast dispersion among the unaffiliated analysts between the IPO date and the first post-IPO earnings announcement date (Dispersion_Unaffiliated). All regressions include industry, stock- exchange, and year fixed effects. ***, **, * indicate statistical significance at the 1 %, 5% and 10% levels, respectively. See the Appendix for variable definitions.

## Table 6 (continued)
## Panel C: Effects of Overall Analysts Forecast Dispersion on Return Volatility

$$\textit{Post-IPO Return Volatility}_i = \beta_0 + \beta_1 * \textit{Post\_JOBS}_i * \textit{Dispersion\_All}_i + \beta_2 * \textit{Post\_JOBS}_i + \beta_3 * \textit{Dispersion\_All}_i + \beta_4 * \textit{Firm Characteristics}_i + \beta_5 * \textit{Offer Characteristics}_i + \textit{Fixed Effects} + \varepsilon_i$$

| **PSM Sample Variable** | **TotVol** | **IdioVol** | **SysVol** |
|---|---|---|---|
| | (1) | (2) | (3) |
| ***Post_JOBS*Dispersion_All*** | **0.099** | **0.129** | **-0.012** |
| | **(0.450)** | **(0.590)** | **(-0.070)** |
| *Post_JOBS* | 0.247 | 0.210 | 0.036 |
| | (1.170) | (0.970) | (0.220) |
| *Dispersion_All* | 0.285 *** | 0.288 *** | 0.062 |
| | (2.930) | (2.950) | (0.870) |
| *LnAssets* | -0.218 | -0.196 | -0.302 ** |
| | (-1.300) | (-1.150) | (-2.430) |
| *LnRevenue* | -0.015 | -0.099 | 0.124 |
| | (-0.090) | (-0.600) | (1.020) |
| *LnTobin'sQ* | -0.036 | -0.058 | -0.025 |
| | (-0.170) | (-0.270) | (-0.160) |
| *ROA* | 0.133 | 0.104 | 0.149 * |
| | (1.100) | (0.850) | (1.670) |
| *Tech* | -0.558 *** | -0.569 *** | -0.071 |
| | (-2.740) | (-2.740) | (-0.460) |
| *LnR&D* | 0.137 | 0.096 | 0.074 |
| | (1.370) | (0.940) | (1.000) |
| *LnProceeds* | 0.110 | 0.079 | 0.078 |
| | (0.600) | (0.420) | (0.560) |
| *LnAge* | -0.403 ** | -0.348 * | 0.021 |
| | (-2.180) | (-1.860) | (0.150) |
| *Big4* | -0.102 | -0.097 | -0.126 |
| | (-0.510) | (-0.470) | (-0.840) |
| *VC_Backed* | 0.031 | -0.005 | -0.283 |
| | (0.120) | (-0.020) | (-1.440) |
| **Industry/Exchange Fixed Effects** | **Yes** | **Yes** | **Yes** |
| Observations | 702 | 702 | 702 |
| Adjusted R-squared | 23.23% | 23.14% | 11.51% |

## Table 6 (continued)
## Panel D: Effects of Affiliated Analysts Forecast Dispersion on Return Volatility

$$\textit{Post-IPO Return Volatility}_i = \beta_0 + \beta_1 * \textit{Post\_JOBS}_i * \textit{Dispersion\_Affiliated}_i + \beta_2 * \textit{Post\_JOBS}_i + \beta_3 * \textit{Dispersion\_Affiliated}_i + \beta_4 * \textit{Firm Characteristics}_i + \beta_5 * \textit{Offer Characteristics}_i + \textit{Fixed Effects} + \varepsilon_i$$

| **PSM Sample Variable** | **TotVol** | **IdioVol** | **SysVol** |
|---|---|---|---|
| | (1) | (2) | (3) |
| ***Post_JOBS*Dispersion_Affiliated*** | **0.689** ** | **0.690** ** | **0.229** |
| | **(2.530)** | **(2.530)** | **(1.290)** |
| *Post_JOBS* | 0.089 | 0.061 | -0.077 |
| | (0.370) | (0.250) | (-0.480) |
| *Dispersion_Affiliated* | 0.215 | 0.199 | 0.064 |
| | (1.560) | (1.440) | (0.710) |
| *LnAssets* | -0.079 | -0.052 | -0.459 *** |
| | (-0.400) | (-0.260) | (-3.590) |
| *LnRevenue* | -0.039 | -0.151 | 0.280 ** |
| | (-0.200) | (-0.770) | (2.190) |
| *LnTobin'sQ* | -0.121 | -0.157 | -0.071 |
| | (-0.480) | (-0.620) | (-0.430) |
| *ROA* | -0.021 | -0.067 | 0.359 * |
| | (-0.070) | (-0.210) | (1.690) |
| *Tech* | -0.563 ** | -0.574 ** | -0.156 |
| | (-2.470) | (-2.490) | (-1.030) |
| *LnR&D* | 0.056 | 0.004 | 0.164 ** |
| | (0.470) | (0.040) | (2.110) |
| *LnProceeds* | 0.068 | 0.063 | -0.030 |
| | (0.320) | (0.290) | (-0.210) |
| *LnAge* | -0.566 ** | -0.481 ** | 0.042 |
| | (-2.490) | (-2.100) | (0.280) |
| *Big4* | -0.057 | -0.068 | -0.093 |
| | (-0.240) | (-0.280) | (-0.590) |
| *VC_Backed* | 0.197 | 0.204 | -0.226 |
| | (0.650) | (0.680) | (-1.140) |
| **Industry/Exchange Fixed Effects** | **Yes** | **Yes** | **Yes** |
| Observations | 702 | 702 | 702 |
| Adjusted R-squared | 23.98% | 24.92% | 19.24% |

## Table 6 (continued)
## Panel E: Effects of Unaffiliated Analysts Forecast Dispersion on Return Volatility

$$\textit{Post-IPO Return Volatility}_i = \beta_0 + \beta_1 * \textit{Post\_JOBS}_i * \textit{Dispersion\_Unaffiliated}_i + \beta_2 * \textit{Post\_JOBS}_i + \beta_3 * \textit{Dispersion\_Unaffiliated}_i + \beta_4 * \textit{Firm Characteristics}_i + \beta_5 * \textit{Offer Characteristics}_i + \textit{Fixed Effects} + \varepsilon_i$$

| **PSM Sample Variable** | **TotVol** | **IdioVol** | **SysVol** |
|---|---|---|---|
| | (1) | (2) | (3) |
| ***Post_JOBS*Dispersion_Unaffiliated*** | **0.085** | **0.059** | **0.057** |
| | **(0.380)** | **(0.260)** | **(0.300)** |
| *Post_JOBS* | 0.079 | 0.134 | 0.177 |
| | (0.250) | (0.410) | (0.670) |
| *Dispersion_Unaffiliated* | 0.085 | 0.074 | 0.063 |
| | (0.970) | (0.830) | (0.860) |
| *LnAssets* | -0.437 | -0.400 | -0.312 |
| | (-1.560) | (-1.400) | (-1.320) |
| *LnRevenue* | 0.186 | 0.182 | 0.005 |
| | (0.800) | (0.760) | (0.030) |
| *LnTobin's Q* | 0.049 | -0.059 | 0.329 |
| | (0.120) | (-0.140) | (0.930) |
| *ROA* | 0.051 | -0.041 | 0.624 * |
| | (0.130) | (-0.100) | (1.940) |
| *Tech* | -0.693 ** | -0.689 ** | -0.188 |
| | (-2.160) | (-2.060) | (-0.690) |
| *LnR&D* | 0.232 | 0.236 | -0.038 |
| | (1.510) | (1.510) | (-0.290) |
| *LnProceeds* | 0.051 | 0.081 | -0.175 |
| | (0.190) | (0.280) | (-0.740) |
| *LnAge* | -0.012 | -0.021 | 0.130 |
| | (-0.050) | (-0.080) | (0.620) |
| *Big4* | -0.659 ** | -0.573 * | -0.149 |
| | (-2.050) | (-1.740) | (-0.550) |
| *VC_Backed* | 0.165 | 0.270 | -0.436 |
| | (0.420) | (0.670) | (-1.320) |
| **Industry/Exchange Fixed Effects** | **Yes** | **Yes** | **Yes** |
| Observations | 702 | 702 | 702 |
| Adjusted R-squared | 35.60% | 35.72% | 26.33% |

Panel C, Panel D, and Panel E report the results of OLS regressions of post-IPO return volatility on analyst forecast dispersion before and after the JOBS Act using the propensity score matched sample. Panel C reports the analysis of forecast dispersion among all analysts who initiate a forecast before the first post-IPO earnings announcement date. Panel D reports the analysis of the forecast dispersion of affiliated analysts who initiate a forecast before the first post-IPO earnings announcement date. Panel E reports the analysis of the forecast dispersion of unaffiliated analysts who initiate a forecast before the first post-IPO earnings announcement date. All regression analyses include industry and stock exchange fixed effects. ***, **, * indicate statistical significance at the 1 %, 5% and 10% levels, respectively. See the Appendix for variable definitions.

## Table 7. Robustness Test Using a Pseudo-Event for EGCs within the Post-JOBS Period

### Panel A: Analysis of Forecast Dispersion around the Pseudo-Event

$$Forecast\_Dispersion_i = \beta_0 + \beta_1 * Post\_PseudoEvent_i + \beta_2 * Analyst\ Characteristics_i + \beta_3 * Firm\ Characteristics_i + Fixed\ Effects + \varepsilon_i$$

| Variable | Dispersion_All | Dispersion_Affiliated | Dispersion_Unaffiliated |
|---|---|---|---|
| | (1) | (2) | (3) |
| ***Post_PseudoEvent*** | **-0.014** | **-0.201** | **0.020** |
| | **(-0.090)** | **(-1.210)** | **(0.030)** |
| *LnAnalystFollowing* | 0.378 | 0.371 | 3.650 * |
| | (1.780) | (1.320) | (4.940) |
| *LnAnalystExperience* | 0.099 | -0.039 | 0.016 |
| | (0.580) | (-0.220) | (0.020) |
| *LnDaysForecastTo1stEA* | -0.018 | 0.031 | 0.065 |
| | (-0.140) | (0.250) | (0.090) |
| *LnAssets* | -0.054 | -0.067 | 0.307 |
| | (-0.620) | (-0.710) | (0.420) |
| *LnRevenue* | 0.064 | 0.064 | 0.022 |
| | (0.840) | (0.770) | (0.030) |
| *LnTobin'sQ* | 0.053 | 0.051 | 0.352 |
| | (0.240) | (0.200) | (0.480) |
| *ROA* | 0.012 | -0.123 | 0.040 |
| | (0.060) | (-0.520) | (0.050) |
| *Leverage* | 0.042 | -0.234 | 0.663 |
| | (0.210) | (-1.000) | (0.900) |
| *Loss* | 0.004 | -0.104 | 0.381 |
| | (0.020) | (-0.510) | (0.520) |
| *Tech* | -0.420 | -0.198 | 3.556 * |
| | (-1.860) | (-0.920) | (4.810) |
| *VC_Backed* | -0.230 | -0.244 | 0.099 |
| | (-0.960) | (-0.890) | (0.130) |
| *Guidance* | 3.055 | 2.778 | -2.966 |
| | (1.170) | (1.160) | (-1.040) |
| *Filing8K* | -0.026 | -0.030 | 0.025 |
| | (-0.650) | (-0.680) | (0.030) |
| **Industry/Exchange/Year Fixed Effects** | **Yes** | **Yes** | **Yes** |
| Observations | 433 | 433 | 433 |
| Adjusted R-squared | 12.99% | 16.11% | 33.99% |

This table presents the OLS regression results on the impact of a pseudo-event on analyst forecast dispersion for EGCs during the post-JOBS period. Column (1) through (3) report the results when the dependent variable is the forecast dispersion among all analysts in their first earnings forecasts after the IPO date and before the first post-IPO earnings announcement date (*Dispersion_All*), the forecast dispersion among only the affiliated analysts between the IPO date and the first post-IPO earnings announcement date (*Dispersion_Affiliated*) and the forecast dispersion among the unaffiliated analysts between the IPO date and the first post-IPO earnings announcement date (*Dispersion_Unaffiliated*). All regressions include industry, stock- exchange, and year fixed effects. ***, **, * indicate statistical significance at the 1 %, 5% and 10% levels, respectively.

## Table 7 (continued)
## Panel B: Effects of Overall Analyst Forecast Dispersion on Return Volatility

$$\textit{Post-IPO Return Volatility}_i = \beta_0 + \beta_1 * \textit{Post\_PseudoEvent}_i * \textit{Dispersion\_All}_i + \beta_2 * \textit{Post\_PseudoEvent}_i + \beta_3 * \textit{Dispersion\_All}_i + \beta_4 * \textit{Firm Characteristics}_i + \beta_5 * \textit{Offer Characteristics}_i + \textit{Fixed Effects} + \varepsilon_i$$

| Variable | TotVol | IdioVol | SysVol |
|---|---|---|---|
| | (1) | (2) | (3) |
| ***Post_PseudoEvent*Dispersion_All*** | **0.082** | **0.006** | **0.214** |
| | **(0.210)** | **(0.000)** | **(0.750)** |
| *Post_PeudoEvent* | 0.398 | 2.638 | -0.134 |
| | (1.180) | (1.070) | (-0.550) |
| *Dispersion_All* | 0.225 | 2.735 | -0.070 |
| | (0.740) | (1.110) | (-0.320) |
| *LnAssets* | -0.309 | 2.034 | -0.260 |
| | (-1.120) | (0.820) | (-1.300) |
| *LnRevenue* | -0.073 | 0.968 | -0.074 |
| | (-0.260) | (0.390) | (-0.360) |
| *LnTobin'sQ* | -0.368 | 3.368 | -0.214 |
| | (-1.070) | (1.360) | (-0.860) |
| *ROA* | 0.154 | 1.680 | 0.124 |
| | (1.000) | (0.680) | (1.120) |
| *Tech* | -0.618 | 5.703 | -0.271 |
| | (-1.710) | (2.310) | (-1.020) |
| *LnR&D* | 0.150 | 0.876 | -0.058 |
| | (0.830) | (0.350) | (-0.440) |
| *LnProceeds* | -0.036 | 0.783 | 0.097 |
| | (-0.120) | (0.320) | (0.420) |
| *LnAge* | -0.346 | 3.641 | 0.077 |
| | (-1.070) | (1.470) | (0.330) |
| *Big4* | 0.153 | 0.238 | -0.127 |
| | (0.490) | (0.100) | (-0.550) |
| *VC_Backed* | 0.316 | 0.065 | -0.225 |
| | (0.680) | (0.030) | (-0.650) |
| **Industry/Exchange Fixed Effects** | **Yes** | **Yes** | **Yes** |
| Observations | 433 | 433 | 433 |
| Adjusted R-squared | 25.71% | 25.77% | 14.56% |

## Table 7 (continued)
## Panel C: Effects of Affiliated Analyst Forecast Dispersion on Return Volatility

$$\textit{Post-IPO Return Volatility}_i = \beta_0 + \beta_1 * \textit{Post\_PseudoEvent}_i * \textit{Dispersion\_Affiliated}_i + \beta_2 * \textit{Post\_PseudoEvent}_i + \beta_3 * \textit{Dispersion\_Affiliated}_i + \beta_4 * \textit{Firm Characteristics}_i + \beta_5 * \textit{Offer Characteristics}_i + \textit{Fixed Effects} + \varepsilon_i$$

| **Variable** | **TotVol** | **IdioVol** | **SysVol** |
|---|---|---|---|
| | (1) | (2) | (3) |
| ***Post_PseudoEvent*Dispersion_Affiliated*** | **0.085** | **0.880** | **0.001** |
| | **(0.220)** | **(1.880)** | **(0.000)** |
| *Post_PseudoEvent* | 0.454 | 0.424 | 0.150 |
| | (1.100) | (1.040) | (0.490) |
| *Dispersion_Affiliated* | 0.206 | 0.256 | 0.169 |
| | (0.610) | (0.780) | (0.680) |
| *LnAssets* | -0.183 | -0.080 | -0.440 * |
| | (-0.660) | (-0.290) | (-2.160) |
| *LnRevenue* | -0.079 | -0.234 | 0.123 |
| | (-0.260) | (-0.780) | (0.550) |
| *LnTobin'sQ* | -0.418 | -0.447 | -0.155 |
| | (-1.160) | (-1.270) | (-0.590) |
| *ROA* | -0.071 | -0.099 | 0.430 |
| | (-0.160) | (-0.230) | (1.340) |
| *Tech* | -0.501 | -0.412 | -0.302 |
| | (-1.300) | (-1.070) | (-1.050) |
| *LnR&D* | 0.157 | 0.095 | 0.059 |
| | (0.810) | (0.500) | (0.410) |
| *LnProceeds* | -0.031 | -0.142 | -0.006 |
| | (-0.090) | (-0.420) | (-0.020) |
| *LnAge* | -0.531 | -0.533 | 0.078 |
| | (-1.470) | (-1.510) | (0.290) |
| *Big4* | 0.221 | 0.131 | -0.030 |
| | (0.640) | (0.380) | (-0.120) |
| *VC_Backed* | 0.333 | 0.097 | -0.174 |
| | (0.680) | (0.200) | (-0.480) |
| **Industry/Exchange Fixed Effects** | **Yes** | **Yes** | **Yes** |
| Observations | 433 | 433 | 433 |
| Adjusted R-squared | 36.09% | 38.23% | 21.91% |

## Table 7 (continued)
## Panel D: Effects of Unaffiliated Analysts Forecast Dispersion on Return Volatility

$$Post\text{-}IPO\ Return\ Volatility_i = \beta_0 + \beta_1 * Post\_PseudoEvent_i * Dispersion\_Unaffiliated_i + \beta_2 * Post\_PseudoEvent_i + \beta_3 * Dispersion\_Unaffiliated_i + \beta_4 * Firm\ Characteristics_i + \beta_5 * Offer\ Characteristics_i + Fixed\ Effects + \varepsilon_i$$

| **Variable** | **TotVol** | **IdioVol** | **SysVol** |
|---|---|---|---|
| | (1) | (2) | (3) |
| ***Post_PseudoEvent*Dispersion_Unaffiliated*** | **-0.448** | **-0.440** | **0.061** |
| | **(-0.320)** | **(-0.290)** | **(0.080)** |
| *Post_PseudoEvent* | 0.713 | 0.620 | 0.414 |
| | (0.990) | (0.780) | (1.040) |
| *Dispersion_Unaffiliated* | 0.277 | 0.218 | 0.420 |
| | (0.630) | (0.460) | (1.760) |
| *LnAssets* | -0.123 | 0.015 | -0.751 |
| | (-0.150) | (0.020) | (-1.710) |
| *LnRevenue* | 0.044 | 0.009 | 0.402 |
| | (0.060) | (0.010) | (0.970) |
| *LnTobin's Q* | 0.044 | 0.111 | -0.557 |
| | (0.040) | (0.100) | (-0.980) |
| *ROA* | 0.446 | 0.364 | 0.884 |
| | (0.550) | (0.410) | (2.010) |
| *Tech* | -0.174 | -0.291 | -0.244 |
| | (-0.220) | (-0.320) | (-0.540) |
| *LnR&D* | 0.014 | -0.024 | 0.500 |
| | (0.020) | (-0.030) | (1.340) |
| *LnProceeds* | -0.634 | -0.697 | -0.520 |
| | (-1.130) | (-1.100) | (-1.650) |
| *LnAge* | -0.123 | -0.143 | 0.473 |
| | (-0.190) | (-0.200) | (1.340) |
| *Big4* | -0.063 | -0.062 | 0.035 |
| | (-0.080) | (-0.070) | (0.080) |
| *VC_Backed* | 0.498 | 0.681 | -0.790 |
| | (0.550) | (0.670) | (-1.570) |
| **Industry/Exchange Fixed Effects** | **Yes** | **Yes** | **Yes** |
| Observations | 433 | 433 | 433 |
| Adjusted R-squared | 24.87% | 23.35% | 45.46% |

Panel C, Panel D, and Panel E present the results of OLS regressions of post-IPO return volatility on analyst forecast dispersion before and after the pseudo-event. Panel C reports the analysis based on the forecast dispersion of all analysts in their first earnings forecast after the IPO date and before the first post-IPO earnings announcement date. Panel D reports the analysis based on the forecast dispersion of affiliated analysts in their first earnings forecast after the IPO date and before the first post-IPO earnings announcement date. Panel E reports the analysis based on the forecast dispersion of unaffiliated analysts in their first earnings forecast after the IPO date and before the first post-IPO earnings announcement date. All regression analyses include industry and stock exchange fixed effects. ***, **, * indicate statistical significance at the 1 %, 5% and 10% levels, respectively.

## Table 8. Variations in Affiliated Analysts' Soft Skills and Forecast Dispersion

$$Forecast\_Dispersion\_Affiliated_i = \beta_0 + \beta_1 * Post\_JOBS_i + \beta_2 * Ln\_Stdv\_Connections_i + \beta_3 * Post\_JOBS_i * Ln\_Stdv\_Connections_i + Controls + \varepsilon_i$$

| Variable | Forecast_Dispersion_Affiliated | |
|---|---|---|
| *Post_JOBS* | -0.455 | |
| | (-0.770) | |
| *Ln_Stdv_Connection* | -0.071 | |
| | (-1.190) | |
| ***Post_JOBS*Ln_Stdv_Connection*** | **0.220** | * |
| | **(2.020)** | |
| *LnAnalystFollowing* | 0.060 | |
| | (0.510) | |
| *LnAnalystExperience* | 0.049 | |
| | (0.520) | |
| *LnDaysForecastTo1stEA* | 0.055 | |
| | (0.890) | |
| *LnAssets* | 0.008 | |
| | (0.190) | |
| *LnRevenue* | 0.018 | |
| | (0.540) | |
| *LnTobin'sQ* | 0.041 | |
| | (0.460) | |
| *ROA* | -0.021 | |
| | (-0.540) | |
| *Leverage* | -0.107 | |
| | (-1.650) | |
| *Loss* | 0.126 | |
| | (1.390) | |
| *Tech* | 0.058 | |
| | (0.560) | |
| *VC_Backed* | -0.045 | |
| | (-0.440) | |
| *EarningsGuidance* | 1.519 | * |
| | (0.910) | |
| *Filing8K* | -0.013 | |
| | (-0.710) | |
| **Industry/Exchange/Year Fixed Effects** | **Yes** | |
| Observations | 871 | |
| Adjusted R-squared | 26.09% | |

This table presents the OLS regression results on the impact of the variation in affiliated analysts' soft skills (measured through their number of *LinkedIn* connections) on the dispersion of their earnings forecast. The regression includes industry, stock- exchange, and year fixed effects. ***, **, * indicate statistical significance at the 1 %, 5% and 10% levels, respectively. See the Appendix for variable definitions.