

The Jobs Act Did Not Raise IPO Underpricing

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Abstract

While the intended goal of the 2012 JOBS Act was to ease access to capital for Emerging Growth Companies (EGCs), prior studies, notably Barth et al. (2017), find evidence of an increase in IPO underpricing and a higher cost of equity capital for EGC issuers. Using a difference-in-differences design, we find that changes in overall IPO market conditions explain the seeming increase in IPO underpricing. In fact, EGC issuers that take advantage of the accounting disclosure relief afforded by the Act raise capital at higher pre-IPO multiples. These reduced-accounting disclosure EGCs have more speculative valuation profiles and lower institutional ownership and are more likely to destroy long-term shareholder value in the IPO aftermarket. Overall, our paper offers an alternative perspective on the effect of the JOBS Act on IPO pricing.

Keywords: JOBS Act, Emerging Growth Companies, IPO Pricing.

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What is the effect of the Jumpstart Our Business Startups (JOBS) Act on IPO pricing? The JOBS Act was signed into law on April 5, 2012, with the objective to improve access to the public capital market for growth companies and catalyze U.S. job creation and economic growth. Title I of the JOBS Act amended the Securities Act and the Exchange Act and has been widely recognized as the most significant relaxation of securities regulation in decades.

Title I of the JOBS Act allows Emerging Growth Companies (EGCs)— issuers with pre-IPO revenues of less than \$1 billion (BN)—a set of provisions designed to “de-risk” and “de-burden” their IPO process. The de-risking provisions allow EGCs the choice to confidentially file a draft registration statement and to test the waters by engaging in private communications with certain institutional investors prior to the public disclosure of the registration statement. The de-risking provisions are intended to enhance the ability to conduct a successful registered offering and to facilitate capital formation at a lower cost. The de-burdening provisions allow EGCs to scale back financial accounting and executive compensation disclosures in their IPO filings, delay auditor attestation on internal controls pursuant to Section 404(b) of the Sarbanes-Oxley (SOX) Act, and to adopt new or revised GAAP standards using private company effective dates.

Whereas the intended goal of the JOBS Act was to ease access to capital for growth companies, prior research finds evidence of higher IPO underpricing for EGC issuers. To illustrate, Barth et al. (2017) compare post-JOBS Act EGC issuers to pre-JOBS Act issuers below the \$1BN revenue cutoff that would have qualified for EGC status had the Act been in effect at the time of their IPO. Their pre-post JOBS Act comparison shows a larger jump of the aftermarket price relative to the offer price, which they interpret as evidence of an increase in IPO underpricing and a higher cost of equity capital for EGC issuers. Chaplinsky et al. (2017) separate Smaller Reporting Companies (SRCs), which they define as issuers with a public float below \$75MN, from the general population of EGCs and find consistent evidence of a larger IPO jump for EGC issuers post-JOBS Act. Other related studies find similar evidence (e.g., Gupta and Israelsen 2016; Agarwal et al. 2017).

Prior research interprets evidence of an increase in the IPO underpricing of EGC issuers as an outcome that is attributable to the JOBS Act rather than contemporaneous

changes in market conditions. With respect to the effect of the JOBS Act on IPO underpricing, the running hypothesis is that valuation uncertainty is more pronounced for EGC issuers post-JOBS Act, especially for those who adopt more of the Title I disclosure relief provisions. Greater valuation uncertainty leads to heavier pre-market discounting by underwriters and translates into higher cost of equity for EGC issuers. Within this context, the price jump in the immediate aftermarket relative to the offer price multiplied by the number of shares offered in the IPO is risk compensation accruing to the IPO capital providers and, at the same time, money left on the table for issuers. This interpretation presumes that the immediate aftermarket price is an unbiased estimate of fundamental value.

The prior evidence of an increase in the cost of equity capital for EGC issuers poses a major conundrum because it implies that the 2012 JOBS Act has not achieved its intended goal of easing access to capital for growth companies. Adding to the conundrum, the evidence appears to be at odds with key empirical facts. First, relative to the depressed level of IPO activity pre-JOBS Act, there was a marked increase in IPO issuance activity post-JOBS Act especially among EGCs (e.g., Dambra et al. 2015). Second, most eligible issuers voluntarily chose to adopt the EGC status. Indeed, we find only a few instances where issuers were eligible for EGC status but did not choose to adopt this status. Third, EGCs have elected to avail themselves of the disclosure reliefs afforded by Title I of the Act at an increasing rate. The evidence is especially perplexing when considering the cost savings from reduced disclosures and the deferral of the SOX internal control audit requirement. Chaplinsky et al. (2017) highlight that the potential cost savings are not significant enough to offset the additional cost associated with higher IPO underpricing, which they estimate at \$21MN worth of money left on the table for the average issuer.

So, what could explain the conundrum? We observe that the post-JOBS Act period overlaps with the longest-ever bull market in U.S. history. This observation is relevant for two reasons. First, there is long-standing evidence that companies either choose to delay their IPOs until a bull market or choose to go public in response to favorable market conditions (e.g., Ritter and Welch 2002). Second, it is known that IPO returns are cyclical and display peaks and troughs that are highly correlated with IPO volume and prevailing market conditions (e.g., Ritter 1991; Baker and Wurgler 2006; Yung et al. 2008). Third, there is

evidence dating back to Ritter (1991) that positive first-day returns tend to be followed by negative long-run returns for new issuers, which is consistent with overpricing in the immediate IPO aftermarket. Ritter (1991) points out that “...*Firms choose to go public when investors are willing to pay high multiples...reflecting optimistic assessments of the net present value of growth opportunities. The negative aftermarket performance...is due to disappointing realizations of the subsequent net cash flows*”.

In this paper, we hypothesize that contemporaneous changes in overall IPO market conditions contribute to the seeming increase in the IPO underpricing of EGC issuers post-JOBS Act. To separate the effect of the JOBS Act from contemporaneous changes in overall IPO market conditions, we implement a difference-in-differences (DID) research design. The DID zeroes in on the differential pre-post JOBS Act change between the treatment group of EGC issuers and a control group of unaffected issuers. As the control group, we use large issuers with pre-IPO revenues over \$1BN. This research design controls for intertemporal changes in overall IPO market conditions that are common across the treatment group of EGC issuers and the control group of large issuers. The idea behind using large issuers as the control group is simple. Large issuers were not eligible for EGC status and were not affected by any of the Title I provisions afforded to EGCs under the JOBS Act until the second half of 2017, when the confidential filing was extended to all issuers (SEC Announcement, [June 29, 2017](#)). Therefore, the pre-post JOBS Act comparison of large issuers offers a “placebo” test of the effect of the JOBS Act on IPO pricing. Even though the JOBS Act had no bearing on large issuers above the \$1BN revenue cutoff, both EGC and large issuers were affected by contemporaneous changes in overall IPO market conditions.

The treatment group consists of 202 issuers that went public from the beginning of 2009 to April 4, 2012, that would have qualified for EGC status had the Act been in effect at the time of their IPO and 380 EGC issuers post-JOBS Act that went public between April 5, 2012, and the end of 2015. To identify a consistent treatment group, we exclude smaller reporting companies (SRCs) from the general population of EGC issuers. This is because effective February 4, 2008, more than four years before the JOBS Act was signed into law, SRC issuers already qualified for several de-burdening provisions. These provisions were similar to those afforded by Title I of the JOBS Act, including the reduced accounting and

executive compensation disclosure provisions (SEC Release, [No. 33-8876](#)). Over our sample period, SRCs were also exempt from providing an auditor attestation on the effectiveness of internal controls pursuant to Section 404(b) of the SOX Act as non-accelerated filers.

The control group of large issuers consists of 39 large issuers that went public from the beginning of 2009 to April 4, 2012, and 56 large issuers post-JOBS Act that went public by the end of 2015. While large issuers account for only 14% of the IPO volume between 2009 and 2015, they account for as much as 48% of the aggregate IPO proceeds and 46% of the aggregate IPO value. Large issuers also account for as much as 85% of aggregate revenues and 79% of aggregate employment across all IPOs between 2009 and 2015. These statistics highlight the economic importance of the control group of large issuers in the U.S. IPO market.

The DID estimator captures the difference of the pre-versus-post trends in the treatment group of issuers below the \$1BN revenue cutoff relative to the control group of large issuers above the \$1BN revenue cutoff. We acknowledge that a natural control group of perfectly comparable but unaffected issuers does not exist, which makes it impossible to design the perfect DID. This shortcoming, however, does not invalidate the choice of large issuers as a control group that was unaffected by the Title I provisions afforded by the JOBS Act. The DID estimator differences away permanent differences in outcomes between the treatment group of EGC issuers and the control group of large issuers as well as any common trend affecting both issuer groups. In addition, our regression model specifications include a wide array of issuer characteristics and fixed effects to control for known cross-sectional determinants of IPO pricing.

In the first set of results, we examine the effect of the JOBS Act on IPO aftermarket returns. Focusing on the treatment group of EGCs, the pre-post JOBS Act comparison shows that first-day returns increased by 6.7 percentage points from 13.5% in the pre-JOBS Act period to 20.2% in the post-JOBS Act period. Our pre-post JOBS Act comparison of EGCs hews closely to prior studies. Turning to the control group of large issuers, we find a placebo effect of similar magnitude. The first-day returns of large issuers increased by 6.6 percentage points from 6.4% in the pre-JOBS Act period to 13.0% in the post-JOBS Act period. This placebo effect cannot be attributed to the JOBS Act because large issuers are not eligible for

EGC status and were not affected by any of the Title I provisions afforded to EGC issuers. The DID regression results show that the differential pre-post change between the treatment group of EGCs vis-à-vis the control group of large issuers is indistinguishable from zero. Put differently, while we observe an increase in IPO returns for both the treatment and control groups in the post-JOBS act period, the differences between the two groups are the same pre-versus-post JOBS Act. This parallel trend is what one would expect in the absence of a treatment effect due to the passage of the JOBS Act. Put differently, the seeming increase in the IPO underpricing of EGCs is attributable to contemporaneous changes in overall IPO market conditions rather than the passage of the JOBS Act.

In the second set of results, we examine the effect of the JOBS Act on pre-IPO valuation multiples. Valuation multiples are widely used in practice when pricing IPOs (e.g., Kim and Ritter 1999; Guo et al. 2005). This analysis offers a direct test of changes in pre-market discounting by underwriters. The idea is simple. Focusing on EGC issuers after the passage of the JOBS Act, an increase in IPO underpricing would imply heavier pre-IPO discounting and, therefore, a decrease in pre-IPO valuation multiples relative to the pre-JOBS Act period. Our results do not support this notion. In fact, the pre-post comparison shows an expansion rather than a contraction of the pre-IPO revenue multiples for the treatment group of EGC issuers. While the pre-post JOBS Act comparison for the control group of large issuers also shows an expansion of their multiples, the DID regression results show an expansion in the multiples of EGC issuers. Together, the evidence shows that EGC issuers raise capital at higher pre-IPO valuation multiples, which challenges the idea that EGCs leave more money on the table due to higher IPO underpricing.

To shed light on the origins of this pre-IPO valuation premium, we exploit heterogeneity in the use of Title I provisions. We find that EGCs have increasingly taken an à la carte approach to adopting most provisions. By the end of 2015, 96% of EGCs used the testing-the-waters provision and 95% of EGCs chose to file their draft registration statements confidentially. Virtually all EGCs that took advantage of the de-risking provisions also availed themselves of the reduced compensation disclosure provision and delayed auditor attestation on internal controls. Furthermore, between 2012 and 2015, most EGCs opted out of the provision to adopt new or revised accounting standards using private

company effective dates (delay GAAP provision).¹ In our sample, we find that the main source of heterogeneity in the use of Title I provisions is the choice to present only two years of audited financial statements and two years of selected financial data in the IPO filing, rather than the previously required three years of audited financial statements and five years of selected financial data. By the end of 2015, we observe that 48% of EGCs had an operating history of more than two years and elected to take advantage of the reduced-accounting disclosure provision. Given the limited variation in the use of other Title I provisions, we zero in on variation in the use of the reduced-accounting disclosure provision.

Our cross-sectional tests provide evidence that the pre-IPO valuation premium is concentrated in reduced-accounting EGC issuers. What could explain the pre-IPO valuation premium of reduced-accounting EGC issuers? If the pre-IPO valuation premium reflects overpricing, we should observe that reduced-accounting EGCs are associated with a higher probability of long-term underperformance. Our evidence supports this prediction. Building on Bessembinder (2018), we construct an indicator of long-term value destruction for IPOs that underperform the stock market index in the three years after going public. Our evidence shows that reduced-accounting EGCs are nearly 1.4 times more likely to destroy long-term shareholder value relative to non-reduced accounting EGC issuers.

Our reconstruction of the typical issuer profile shows that reduced-accounting EGCs are smaller, more R&D-intensive, and are significantly more likely to have a history of losses relative to non-reduced accounting EGC issuers. They also have lower institutional ownership, which indicates higher individual investor ownership. These characteristics are associated with more speculative valuation profiles and a higher tendency for overpricing (e.g., Purnanandam and Swaminathan 2004; Field and Lowry 2009; Aboody et al. 2018; Patatoukas et al. 2021). The cross-sectional differences across reduced-accounting and non-reduced accounting EGCs imply that it is not the reduced-accounting provision choice *per se* leading to more prevalent overpricing but rather the fundamental characteristics of EGCs issuers that choose to scale back their financial accounting disclosures.

¹ The average number of JOBS Act provisions used by EGC issuers has increased from 4.1 in 2012 to 5.3 in 2015, with as much as 97% of the pooled sample of EGC issuers using at least four provisions. We provide a detailed discussion of the use of Title I provisions in Section 3.3.

Our paper contributes to research on the effect of the JOBS Act on IPO pricing. Relative to prior work, we provide evidence that changes in overall IPO market conditions coincident with the passage of the JOBS Act explain the seeming increase in the IPO underpricing of EGC issuers. In contrast to prior evidence that EGCs leave more money on the table due to higher pre-market discounting by underwriters, we find that EGCs raise capital at significantly higher pre-IPO valuation multiples even though they have more speculative valuation profiles and are more likely to destroy long-term shareholder value for IPO aftermarket investors. A relevant implication is that inferences regarding the effect of the JOBS Act are confounded by contemporaneous changes in market conditions. In this sense, our paper relates to Leuz and Wysocki's (2016) assessment that regulatory studies are often confounded by "*overall time trends that are concurrent with the regulatory change*".

With respect to prior studies on the effect of the JOBS Act on IPO pricing, we conclude that caution is warranted when interpreting evidence as a causal outcome of the regulatory change. Different from Barth's et al. (2017) focus on the pre-versus-post comparison of issuers below the \$1BN revenue cutoff, our DID research design controls for intertemporal changes in overall IPO market conditions that are common across the treatment group of EGC issuers and the control group of large issuers. And different from Chaplinsky's et al. (2017) focus on the pre-post comparison of SRC and non-SRC EGCs, we identify large issuers as a control group that are not eligible for EGC status and were not affected by any of the Title I provisions afforded by the JOBS Act. Indeed, even though SRCs already qualified for several de-burdening provisions before the passage of the JOBS Act, they were afforded Title I de-risking provisions of testing the waters and confidential filing as well as the delay GAAP de-burdening provision only after the passage of the JOBS Act.

The JOBS Act was an ambitious piece of legislation and more research is warranted on its effects. Our paper offers an alternative perspective on the effect of the JOBS Act on IPO pricing and investor protection in the IPO aftermarket. Our evidence of confounding time trends in the IPO market echoes long-standing evidence on the cyclical nature of IPO pricing and the tendency of growth IPO stocks to become overpriced in the immediate aftermarket, especially those going public during hot IPO markets (e.g., Ritter 1991). Our evidence that individual investors may have been disproportionately exposed to shareholder value

destruction post-JOBS Act could inform the SEC’s efforts to facilitate capital formation while protecting the interests of Main Street investors. Our paper is particularly timely in light of the SEC’s rule allowing all new issuers, including EGC and non-EGC issuers, to test the waters with certain institutional investors prior to filing a registration statement (SEC Release, [No. 33-10699 effective December 3, 2019](#)).²

1. Background

1.1 The JOBS Act

At the U.S. Treasury Department’s Access to Capital Conference on March 22, 2011, Treasury Secretary Tim Geithner postulated that “*The financial crisis caused a great deal of damage to the capacity of innovators to access the capital markets*”. Following the conference, an IPO Task Force was formed to study the relationship between IPO volume and job growth. Composed of a group of venture capitalists, entrepreneurs, investors, investment bankers, academics, and former government officials, the IPO Task Force concluded that the decline in the number of IPOs in recent years had resulted in considerable job loss and damage to the U.S. economy (e.g., Latham & Watkins 2013). To help spur U.S. job creation and economic growth the Jumpstart Our Business Startups (JOBS) Act was signed into law on April 5, 2012. The JOBS Act was intended to revitalize the U.S. economy by making it easier for growth companies to raise capital. Title I of the JOBS Act used the IPO Task Force’s report to guide the implementation of an IPO “on-ramp” to smooth the transition from private to public corporate status.

Title I of the JOBS Act created a new category of issuers called Emerging Growth Companies (EGCs). These companies are eligible for a reduction in various regulatory, disclosure, and compliance requirements if their annual revenues are less than \$1BN in the most recent complete fiscal year and if, as of December 8, 2011, they have not sold common equity under a registration statement. The revenue cutoff is amended every five years to account for inflation. As of April 12, 2017, the \$1BN revenue cutoff was raised to \$1.07BN.

² We provide a more detailed discussion of the SEC’s new rule in Section 5.

The EGC status is temporary and expires five years after the IPO date or when any of the following three scenarios occur: (a) annual revenues exceed the \$1BN cutoff, (b) the company has more than \$1BN in non-convertible debt issuances within the past three years, or (c) the company becomes a large-accelerated filer, defined as a company with an aggregate market value of common equity held by its non-affiliates of \$700MN or more. The EGC status cannot be regained once it has been lost. Certain regulatory requirements, such as obtaining auditor attestation on internal controls, are phased in during the five-year IPO on-ramp period, unless the company loses its status earlier by exceeding the EGC thresholds.

1.2 Title I provisions

Title I of the JOBS Act allows EGC issuers a set of provisions designed to de-risk and to de-burden the IPO process. Appendix 1 summarizes the de-risking and the de-burdening provisions. EGC issuers can choose to use all, some, or none of the Title I provisions during their IPO on-ramp period.

The de-risking provisions include confidential filing of the IPO draft registration statement and testing-the-waters communications. The confidential filing provision allows issuers to submit a draft of their IPO registration statement to the SEC for confidential review as long as the initial confidential submission and all amendments are publicly filed with the SEC no later than 15 days before the start of the issuer's IPO roadshow. The testing-the-waters provision allows issuers to assess investor interest in a proposed offering either before or after filing a registration statement. Under this provision, issuers can communicate directly with potential investors that are qualified institutional buyers or institutions that are accredited investors prior to the registration statement's public disclosure.

The de-burdening provisions include a reduced financial statement disclosure provision, which allows companies to report in their IPO registration statement only two years of audited financial statements and two years of selected financial data, rather than the previously required three years of audited financial statements and five years of selected financial data; a reduced executive compensation disclosure provision, which exempts companies from providing a compensation, discussion, and analysis section in their IPO registration statement and reduces compensation disclosure to only three named executive

officers, including the CEO and the two other highest-paid executives, instead of five named executive officers; an exemption from auditor attestation on internal controls under Section 404(b) of the SOX Act; and an option to follow private company effective dates for new or revised GAAP standards.

1.3 EGC issuers vs. SRC issuers

While the JOBS Act introduced EGCs as a new category of issuers, under the Smaller Reporting Company Regulatory Relief and Simplification Rule, effective February 4, 2008, SRCs already qualified for several de-burdening provisions. These provisions were similar to those afforded by Title I of the JOBS Act, including the reduced accounting and executive compensation disclosure provisions (SEC Release, [No. 33-8876](#)). Furthermore, SRCs were also exempt from providing an auditor attestation on the effectiveness of internal controls pursuant to Section 404(b) of the SOX Act because qualifying as a smaller reporting company automatically made a registrant a non-accelerated filer.³

Pursuant to the passage of the JOBS Act, all Title I provisions apply to both EGC and SRC issuers alike. Appendix 1 illustrates that while the de-risking provisions were new to both EGCs and SRCs, only the delay GAAP de-burdening provision was new to SRC issuers. Because SRCs already qualified for several de-burdening provisions *before* the JOBS Act was signed into law, we exclude SRCs from the general population of EGC issuers to identify a consistent treatment group.⁴

³ We note that effective September 10, 2018; that is, after the end of our sample period, the SEC changed its SRC definition to expand the number of registrants that qualify for reduced disclosures (SEC Release, [No. 33-10513](#)). The new thresholds for a registrant to qualify as an SRC is an estimated public float of less than \$250MN or annual revenues of less than \$100MN and an estimated public float of less than \$700MN. Under the new rule, qualifying as an SRC will no longer automatically make a registrant a non-accelerated filer.

⁴ Prior studies on the effect of the JOBS Act treat SRC issuers as both treatment and control firms. As we also explain in Section 4.1.2, Barth et al. (2017) combine SRCs with the general population of EGCs and focus on the pre-post JOBS Act comparison of new issuers below the \$1BN revenue cutoff. Chaplinsky et al. (2017) separate SRCs from the general population of EGCs and focus on the differential pre-post JOBS Act change between non-SRC EGCs and SRC issuers. The Supplementary Appendix confirms that our inferences are not sensitive when we include SRCs as part of either the control group or the treatment group.

1.4 EGC issuers vs. large issuers

Large issuers with pre-IPO revenues over \$1BN are not eligible for EGC status and were not affected by any of the Title I provisions afforded to EGC issuers under the JOBS Act. Since then, some provisions, such as confidential filing and testing the waters, have been extended to all issuers. Therefore, the pre-post JOBS Act comparison for the group of large issuers offers a placebo test of the effect of the JOBS Act on IPO pricing. Importantly, even though the JOBS Act had no bearing on issuers above the \$1BN revenue cutoff, both EGC and large issuers were affected by contemporaneous changes in overall IPO market conditions. Different from prior research, our DID research design controls for intertemporal changes in overall IPO market conditions that are common across the treatment group of EGC issuers and the control group of large issuers.

1.5 Prior research on the effect of the JOBS Act on the IPO market

With respect to the effect on IPO activity, Dambra et al. (2015) use a DID research design to control for contemporaneous changes in IPO market conditions across developed economies and argue that the JOBS Act had a positive effect on IPO volume in the U.S. market. Dambra et al. (2015) conclude that the JOBS Act has helped re-energize the U.S. IPO market by de-risking the IPO process and reducing the probability of a withdrawn IPO. Consistent with Dambra et al. (2015), Cheng (2015) provides evidence that the de-burdening provisions had little effect on the composition of IPO firms. More recently, Dathan and Xiong (2021) argue that the testing-the-waters provision of the JOBS Act is associated with a decrease in the number of firms going public.

With respect to the effect on IPO underpricing, Barth et al. (2017) compare post-JOBS Act EGC issuers to pre-JOBS Act issuers below the \$1BN revenue cutoff that would have qualified for EGC status had the Act been in effect at the time of their IPO. Their pre-post JOBS Act comparison shows a larger jump of the aftermarket price relative to the offer price, which they interpret as evidence of an increase in IPO underpricing and higher cost of equity capital for EGC issuers. While Barth et al. (2017) focus on the simple pre-versus-post comparison of issuers below the \$1BN revenue cutoff, our DID research design controls for intertemporal changes in overall IPO market conditions that are common across the treatment group of

EGC issuers and the control group of large issuers. Effectively, our DID research design zeroes in on the differential pre-post JOBS Act change between the treatment group of EGC issuers and the control group of large issuers.

Chaplinsky et al. (2017) separate SRC issuers, which they define as issuers with a public float below \$75MN, from the general population of EGC issuers and find consistent evidence of a larger IPO price jump for non-SRC EGCs post-JOBS Act. Other related studies find similar evidence (e.g., Gupta and Israelsen 2016; Agarwal et al. 2017). Chaplinsky et al. (2017) also explore the effect of the JOBS Act on the direct issuance costs for EGCs, including accounting, legal, and underwriting fees, and do not find evidence that potential cost savings offset the indirect cost associated with higher IPO underpricing.

Prior studies on the effect of the JOBS Act have treated SRC issuers in inconsistent ways. While Barth et al. (2017) combine SRCs with the general population of EGCs and focus on the pre-post JOBS Act comparison of new issuers below the \$1BN revenue cutoff, Chaplinsky et al. (2017) separate SRCs from the general population of EGCs and focus on the differential pre-post JOBS Act change between non-SRC EGCs and SRC issuers. Relative to prior research, we separate SRCs from the general population of EGCs to identify a consistent treatment group of affected issuers. This is because SRCs already qualified for several de-burdening provisions before the passage of the JOBS Act. We then zero in on the differential pre-post JOBS Act change between the treatment group of non-SRC EGCs and the control group of large issuers. In Section 4.1.2, we confirm that the inferences regarding the effect of the JOBS Act on IPO pricing are not sensitive when we include SRCs as part of either the control group or the treatment group.

With respect to the effect on the IPO information environment, Dambra et al. (2018) implement a DID research design to identify the effect of IPO analyst participation as allowed by the JOBS Act on EGC-affiliated analysts (i.e., analysts employed by members of the EGC issuer's IPO underwriting syndicate). They find that EGC-affiliated analysts become more optimistic relative to non-affiliated analysts after the JOBS Act and conclude that greater analyst participation in the IPO process results in less accurate analyst research. Focusing on IPO aftermarket trading, Honigsberg et al. (2015) find that immediately following the IPO individual investors are less likely to trade in the stocks of EGCs that provide less disclosure,

but this effect reverses during the two weeks of trading after the offering. In a recent study, Esmer et al. (2020) provide evidence that the confidential filing provision of the JOBS Act affects litigation risk during the pre-IPO period by making the IPO process less salient.

2. Research design and data

2.1 Model specification

Our first research objective is to separate the effect of the JOBS Act on the IPO pricing of EGC issuers from contemporaneous changes in overall IPO market conditions. Our DID zeroes in on the pre-post JOBS Act comparison of the treatment group of (non-SRC) issuers below the \$1BN revenue cutoff vis-à-vis the control group of large issuers. We acknowledge that a natural control group of perfectly comparable but unaffected issuers does not exist, which makes it impossible to design the perfect DID. This shortcoming, however, does not invalidate the choice of large issuers as a control group of unaffected issuers in our setting. The DID estimator differences away permanent differences in outcomes between the treatment group of EGC issuers and the control group of large issuers as well as any common trend affecting both issuer groups. To control for the effect of cross-sectional differences in IPO pricing determinants, the regression model specifications include a wide array of issuer characteristics and fixed effects as right-hand-side variables. We implement the DID research design using the following regression model

$$Y_i = \alpha + \beta_1 EGC_i \times POST_i + \beta_2 EGC_i + \beta_3 POST_i + \sum_k \gamma_k \times C_{k,i} + \sum_j \delta_j \times \theta_{j,i} + \varepsilon_i. \quad (1)$$

We estimate the model in equation (1) using pooled cross-sectional OLS regression. For the left-hand-side variables (Y_i), we consider IPO aftermarket returns and pre-IPO valuation multiples. For each issuer, we measure IPO returns as buy-and-hold market-adjusted returns from the IPO offering price to the closing price at the end of the first day, first week, and first month of trading. We use the CRSP value-weighted index as the market index. We measure the pre-IPO valuation multiple as the ratio of IPO value divided by pre-IPO revenues. Turning to the right-hand-side variables, EGC_i is an indicator variable for issuers that went public before the passage of the JOBS Act that would have qualified for EGC status had the Act been in effect at the time of their IPO and EGC issuers post-JOBS Act that

went public by the end of 2015, $POST_i$ is an indicator variable for issuers that went public after the JOBS Act's passage on April 5, 2012, $C_{k,i}$ is a vector of issuer characteristics, and $\theta_{j,i}$ is a vector of sector fixed effects. The coefficient on EGC_i captures the difference between the treatment and control groups prior to the passage of the JOBS Act. The coefficient on $POST_i$ captures the pre-versus-post JOBS Act trend in the control group. The coefficient on the interaction $EGC_i \times POST_i$ is the DID estimator and captures the difference of the pre-versus-post trends in the treatment group relative to the control group.

Following prior research on IPO pricing determinants, the vector $C_{k,i}$ includes firm age, pre-IPO assets and revenues, IPO proceeds, the fraction of shares retained by pre-IPO shareholders, the offer price revision, the number of days in registration, return on assets (ROA), R&D intensity, CAPEX intensity, along with indicator variables for negative earnings, negative book value of equity, positive R&D, VC backing, software technology companies, biotech companies, the listing stock exchange, reputable underwriters, and Big-4 auditors, as well as the aggregate number of IPOs in registration and the average return of NASDAQ stocks measured during the 90 days leading to the IPO (e.g., Lowry and Schwert 2002, 2004; Loughran and Ritter 2004; Lowry and Murphy 2007; Lowry et al. 2010; Liu and Ritter 2010, 2011; Chaplinsky et al. 2017). The vector of sector fixed effects $\theta_{j,i}$ is based on the two-digit Global Industry Classification Standard (GICS) taxonomy.

Throughout the paper, we use two-tailed tests when testing for statistical significance. Bertrand et al. (2004) explore the issue of serial correlation in outcome variables in the context of DID estimators and show that OLS standard errors understate the standard deviation of the estimated treatment effects. The issue of serial correlation is especially relevant in the JOBS Act setting due to low-frequency changes in IPO returns (e.g., Loughran and Ritter 2004). To address time-series and cross-sectional residual dependence, we base statistical inferences on standard errors clustered by two-digit GICS code and IPO month. Our inferences are not sensitive when we use one-way clustered standard errors either by industry or IPO month.

2.2 Sample construction and descriptive statistics

Our initial sample begins with 974 U.S. issuers that filed their registration statements on Form S-1 and went public between January 1, 2009, and December 31, 2015. We obtain offering data from SDC, stock market data from CRSP, and accounting data from Compustat. We obtain [underwriter rank](#) and [founding year](#) data from Jay Ritter's website. We restrict the list to offerings of common shares with an offer price above \$1, non-missing first-day closing price, and pre-IPO total assets above \$1MN. The restricted sample of 801 IPOs excludes unit offerings, rights offerings, ADRs, limited partnership interests, closed-end funds, and REITs. Following prior studies, we exclude issuers below the \$1BN revenue cutoff that filed their first registration statement before the JOBS Act and went public after the Act was signed into law (40 cases). This sample filter ensures that all eligible issuers for EGC status could benefit from the Title I provisions. For consistency, we exclude issuers above the \$1BN revenue cutoff that filed their first registration statement before the Act and went public after the Act (11 cases). Following prior studies, we exclude post-JOBS Act issuers that were eligible for EGC status but did not adopt this status (9 cases).⁵ Given that SRCs already qualified for several de-burdening provisions prior to the passage of the JOBS Act, we exclude 64 issuers that identify as SRCs in their IPO registration statements.⁶

The final sample includes 677 U.S. IPOs from January 1, 2009, to December 31, 2015. Appendix 2 summarizes the sample construction. The sample period balances the pre- and post-JOBS window centered on the passage of the JOBS Act. Given that we investigate shareholder value destruction three years after going public, our dataset effectively covers the ten-year period from January 1, 2009, to December 31, 2018.⁷

⁵ We observe that three out of these nine cases were trading over-the-counter prior to their S-1 filing. With respect to the remaining six cases, we find that five of them would have lost the EGC status in the year after IPO by exceeding the EGC thresholds. The remaining one case is an older company that emerged from bankruptcy.

⁶ We observe that 61 out of the 64 SRCs in our data had gross proceeds below \$75MN. On closer inspection, we find that the remaining three cases had projected public float in the immediate IPO aftermarket below \$75MN.

⁷ In additional analysis, we find consistent results when we expand our sample period forward to end in December 2019. Our expanded coverage over the four years between January 1, 2016, and December 31, 2019, increases our sample of EGC issuers by 308 deals and our sample of large issuers by 41 deals.

Figure 1 presents the timeline of the DID research design. The treatment group includes 202 issuers below the \$1BN revenue cutoff that went public before the JOBS Act that would have qualified for EGC status had the Act been in effect at the time of their IPO and 380 EGC issuers that adopted the EGC status post-JOBS Act and went public by the end of 2015.⁸ The control group includes 39 large issuers above the \$1BN revenue cutoff that went public between the beginning of 2009 and before the JOBS Act took effect and 56 such large issuers post-JOBS Act that went public by the end of 2015.

Panel A of Table 1 reports pooled aggregate statistics between 2009 and 2015 highlighting the economic significance of large issuers in the U.S. IPO market relative to EGC issuers. While large issuers account for 14% of the IPO volume (95 deals), they account for 48% of aggregate IPO proceeds and 46% of aggregate IPO value.⁹ Moreover, large issuers account for as much as 85% of aggregate revenues and 79% of aggregate employment. Panel B of Table 1 reports the distribution of new issuers across GICS sectors. We observe that the most represented sector among EGC issuers is Healthcare (37%), followed by Information Technology (25%). In comparison, the most represented sector among large issuers is Consumer Discretionary (23%), followed by Industrials (15%), and Healthcare (14%).

Panel C of Table 1 reports the pooled empirical distributions of key variables. Appendix 3 provides detailed variable definitions. We observe that the closing price in the first month of trading is almost 21% higher than the offer price for the average issuer in our sample. Several issuers have a history of operating losses, with 56% of our sample reporting negative book value of equity in the pre-IPO year. Furthermore, we observe that 55% of issuers in our sample destroy shareholder value for IPO aftermarket investors because they underperform the cumulative performance of the stock market index in the three years after going public.

⁸ We note that there are 35 non-SRC issuers with pre-IPO revenues of less than \$1 billion from December 8, 2011, to April 5, 2012; that is, the period during which the JOBS Act was applied retroactively. Our inferences are unchanged when we exclude these cases from our sample.

⁹ We measure IPO value as the product of the offer price times the total number of shares outstanding (including all share classes) in the company after the IPO (see Appendix 3 for variable definitions).

Panel D of Table 1 compares the affected group of EGC issuers and the unaffected group of large issuers. The comparison shows that EGCs are significantly younger, smaller, and less profitable; they also invest significantly more in R&D and CAPEX per dollar of revenues, they are more likely to have VC funding, and they are less likely to engage with high quality underwriters and Big-4 auditors. In addition, EGCs have significantly more positive IPO aftermarket returns and tend to be valued at higher pre-IPO multiples. Relative to large issuers, EGCs have significantly lower levels of institutional ownership and a higher frequency of long-term shareholder value destruction. Despite these differences, both issuer groups are affected by contemporaneous changes in overall IPO market conditions. The comparison of means shows that the two groups are indistinguishable from one another in terms of the number of IPOs in registration in the 90 days prior to the IPO and the average buy-and-hold return of all NASDAQ-traded stocks during the 90 days prior to the IPO.

2.3 Title I provisions

We obtain data on the use of Title I provisions among EGC issuers from Ernst & Young. We expand Ernst & Young's database by manually collecting information on the use of de-risking and de-burdening provisions from the offering documents of EGC issuers. Panels A and B of Table 2 report the frequency of Title I provisions adopted by EGCs over time and across sectors, respectively. The evidence highlights that EGC issuers have elected to avail themselves of the Title I provisions at an increasing rate. The average number of JOBS Act provisions used by EGC issuers has increased from 4.1 in 2012 to 5.3 in 2015, with 97% of the pooled sample of EGC issuers using at least four provisions. By the end of 2015, Table 2 shows that 96% of EGCs used the testing-the-waters provision and that 95% of EGCs chose to file their draft registration statements confidentially. Virtually all EGCs that took advantage of the de-risking provisions also availed themselves of the reduced compensation disclosure provisions, and delayed auditor attestation on internal controls.¹⁰

¹⁰ We also point out that 92% of EGCs opted out of the provision to adopt new or revised accounting standards using private company dates. The choice to opt out from the delay GAAP provision is generally preferred by investors and analysts as it makes the financial statements of EGCs more comparable to those of other public companies (e.g., PwC 2018). More recently, however, new EGC registrants are increasingly using the delay GAAP provision because doing so gives them more time to adopt major new standards on revenue recognition, leases, and credit losses (e.g., Ernst & Young 2019).

In the three years after the passage of the JOBS Act, the main source of heterogeneity in the use of Title I provisions across EGCs is the reduced-accounting disclosure provision. The reduced-accounting disclosure provision allows companies to present only two years of audited financial statements and two years of selected financial data in their IPO filing, rather than the previously required three years of audited financial statements and five years of selected financial data, respectively. By the end of 2015, we find that 48% of EGCs had an operating history of more than two years and elected to take advantage of the reduced-accounting disclosure provision afforded by the JOBS Act. Looking across sectors, the Healthcare sector stands out for two reasons. First, the 171 Healthcare EGCs account for as much as 45% of our sample of EGC issuers post-JOBS Act. Second, we observe that as many as 74% of Healthcare EGCs elected to take advantage of the reduced-accounting disclosure provision, which is the highest rate of adoption of this provision across sectors.¹¹

Overall, the substantial overlap in the use of Title I provisions implies that the choice to de-risk and de-burden may be inseparable from the choice of eligible issuers to adopt the EGC status to begin with. Consistent with recent IPO market overviews produced by major accounting firms (e.g., PwC 2018; Ernst & Young 2019), our evidence is consistent with an à la carte approach to adopting most provisions afforded by the JOBS Act.

3. Empirical results

3.1 IPO aftermarket returns

In our first set of results, we zero in on the IPO aftermarket returns for the treatment group of EGC issuers vis-a-vis the control group of large issuers. We measure IPO returns relative to the offer price at daily, weekly, and monthly horizons after the offer date.

¹¹ We note that the frequency of reduced-accounting EGCs has further increased in more recent years and this upward trend is mostly explained by the popularity of this provision among Healthcare EGC issuers. Between 2016 and 2019, we find that 65% of EGCs with an operating history of more than two years chose to present only two years of audited financial statements and two years of selected financial data in their IPO filing. Despite the upward trend, the reduced-accounting provision remains the main source of heterogeneity in the use of Title I provisions across EGC issuers.

4.1.1 Portfolio and regression results

Panels A and B of Table 3 report the portfolio mean values of market-adjusted buy-and-hold stock returns cumulated from the IPO offer price to the closing price at the end of the first day $ARET[D]$, first week $ARET[W]$, and first month of trading $ARET[M]$ for EGC and large issuers, respectively.¹² Focusing on the treatment group of issuers below the \$1BN revenue cutoff, the pre-post JOBS Act comparison in Panel A of Table 3 shows that the first-day return increased by 6.7 percentage points from 13.5% in the pre-JOBS Act period to 20.2% in the post-JOBS Act period. The pre-post return spread is 8.4 percentage points at the end of the first week of trading and 12.6 percentage points at the end of the first month of trading. We note that our pre-post JOBS Act comparison of IPO returns for the treatment group of EGC issuers hews closely to prior work. Different from our paper, however, prior research interprets the larger IPO jump as de facto evidence of an increase in IPO underpricing and more money left on the table for EGCs after the passage of the JOBS Act.

Turning to the control group of large issuers, we find an effect of similar magnitude in the immediate IPO aftermarket. The pre-post JOBS Act comparison in Panel B of Table 3 reveals that the first-day returns of large issuers increased by 6.6 percentage points from 6.4% in the pre-JOBS Act period to 13.0% in the post-JOBS Act period. The pre-post return spread is 8.2 percentage points at the end of the first week of trading and 11.4 percentage points at the end of the first month of trading. This placebo effect cannot be attributed to the JOBS Act because large issuers are not eligible for EGC status and were not affected by any of the Title I provisions afforded to EGC issuers. The pre-post JOBS Act comparison across issuer groups implies that the differences between the treatment group of EGC issuers below the \$1BN revenue cutoff and the control group of large issuers above the \$1BN revenue cutoff are similar over time. This parallel trend is what one would expect in the absence of a treatment effect due to the passage of the JOBS Act.

¹² In untabulated analyses, we find consistent results measuring excess IPO returns relative to a portfolio of seasoned companies matched based on industry, size, and book-to-market.

Table 4 reports the DID regression results. The odd (even) columns report regression results before (after) controlling for issuer characteristics and sector fixed effects.¹³ The slope coefficient on the interaction $EGC \times POST$ captures the pre-versus-post JOBS Act difference in the average returns for the treatment group of non-SRC EGC issuers below the \$1BN revenue cutoff minus the pre-versus-post difference in the average returns for the control group of large issuers above the \$1BN revenue cutoff. Across model specifications, the estimated difference-in-differences is indistinguishable from zero. This finding holds for different return windows, ranging from the first day to the first month after the IPO. This finding also holds after the inclusion of issuer characteristics and sector fixed effects as right-hand-side variables. Focusing on first-day returns, we observe that the slope coefficient on the EGC indicator is significantly positive before the inclusion of issuer characteristics and sector fixed effects as right-hand-side variables. However, it becomes indistinguishable from zero after the inclusion of these variables. This finding implies that the pre-JOBS Act difference in the first-day returns of EGC issuers relative to large issuers is captured by cross-sectional differences in fundamental characteristics.

We report additional robustness tests in Table A2 of the Supplementary Appendix. First, Columns 1 and 2 confirm that our inferences are unchanged using propensity score matched DID regression. Second, an alternative regression discontinuity design would zero in on issuers within a tight bandwidth just above and just below the \$1BN revenue cutoff. However, the density of observations around the \$1BN revenue cutoff is very low, which makes it impossible to implement a regression discontinuity design. To illustrate, a ± 100 MN bandwidth around the \$1BN revenue cutoff captures only 1.7% of EGC issuers (10 cases) and 3.2% of large issuers (3 cases). As we cannot zero in on issuers near the cutoff, we investigate whether our results are driven by “mega” issuers that are further away from the cutoff. Columns 3 and 4 report consistent results after dropping issuers with pre-IPO revenues in excess of \$10BN (11 cases). Third, Alhusaini et al. (2020) provide evidence that an issuer categorization as a “Unicorn” increases investor demand for its shares and leads to

¹³ For brevity, we suppress the output. Table A1 in the Supplementary Appendix reports the coefficient estimates on the issuer characteristics and shows that they are generally consistent with prior research on the determinants of IPO aftermarket returns.

more positive first-day returns. One question might be whether our results are sensitive to the inclusion of Unicorn IPOs. Columns 5 and 6 report the DID regression results for IPO returns after excluding Unicorn IPOs and confirm that the coefficient on the interaction $EGC \times POST$ remains indistinguishable from zero.¹⁴

4.1.2 Relation to prior research on the effect of the JOBS Act on IPO pricing

As we explain in Section 2.3, prior studies on the effect of the JOBS Act have handled SRCs as part of both the treatment and control group. Barth et al. (2017) combine SRCs with the general population of EGCs and focus on the pre-post JOBS Act comparison of IPOs below the \$1BN revenue cutoff. Whereas Barth et al. (2017) handle SRCs as part of the treatment group, we separate SRCs from the general population of EGCs to identify a consistent treatment group of affected issuers. This is because SRCs already qualified for several de-burdening provisions before the JOBS Act was signed into law. We then zero in on the differential pre-post change between the treatment group of non-SRC EGCs and the control group of large issuers. Nevertheless, Columns 1 and 2 of Table A3 in the Supplementary Appendix confirm that the estimated coefficient on $EGC \times POST$ remains indistinguishable from zero when we include SRC issuers (64 cases) as part of the treatment group.

With respect to Barth et al. (2017), we note that their sample covers the pre-JOBS Act period between July 1, 2009, and April 4, 2012, and the post-JOBS Act period between April 5, 2012, and December 31, 2013. Additionally, Barth et al. (2017) explain that in untabulated analyses, they do not find a significant change in the IPO aftermarket returns of large issuers post-JOBS Act, which is different from our evidence of a significant placebo effect on the pricing of large issuers. They attribute the lack of significance to low power. To ensure that our results are not due to sample period differences, Columns 3 and 4 of Table A3 report the DID regression results for their restricted pre-post JOBS Act period. The restricted sample includes 194 (127) non-SRC EGC issuers in the pre (post) period and 38 (28) large issuers

¹⁴ Alhusaini et al. (2020) identify November 2, 2013, as the time of the introduction of the Unicorn category with the publication of a TechCrunch article that coined this term for the first time. Using data from CB Insights' tracker of billion-dollar VC-backed exits, we identify 18 Unicorn IPOs between November 2, 2013, and December 31, 2015, which is close to the annual Unicorn IPO activity detailed in Figure 1 of their paper. From these 18 Unicorn IPOs, we identify 4 foreign issuers that do not enter our analysis because our sample focuses on issuers who filed their registration statements on Form S-1. Focusing on the remaining 14 Unicorn IPOs, we identify 12 non-SRC EGC issuers, 1 SRC EGC issuer, and 1 large issuer.

in the pre (post) period. Our evidence confirms that the estimated coefficient on $EGC \times POST$ is indistinguishable from zero in this restricted pre-post JOBS Act period. Moreover, to mitigate the impact of influential observations, we further report robust regression results based on Yohai's (1987) MM-estimator. Columns 5 and 6 in Table A3 confirm that the estimated coefficient on $EGC \times POST$ is indistinguishable from zero in the robust regression.

With respect to Chaplinsky et al. (2017), we point out that they use SRCs as the control group, which is opposite to Barth's et al. (2017) inclusion of SRCs in the treatment group.¹⁵ As we also explain in Section 2.3, the group of SRC issuers does not offer a control group of entirely unaffected issuers. Indeed, even though SRCs already qualified for several de-burdening provisions pre-JOBS Act, it is only after the passage of the JOBS Act that SRC issuers were afforded Title I de-risking provisions and the delay GAAP de-burdening provision. In addition, while we identify SRCs using hand-collected information directly from the IPO registration statements, Chaplinsky et al. (2017) broadly define SRCs as all issuers with less than \$75MN in gross proceeds. This broad definition overclassifies issuers as SRCs. To illustrate, our sample covers as many as 186 cases of non-SRC EGC issuers with less than \$75MN in gross proceeds. These 186 non-SRC EGC issuers would have been misclassified as SRCs based on Chaplinsky's et al. (2017) definition.

Table A4 in the Supplementary Appendix provides evidence that the misclassification of non-SRC EGC issuers as SRCs leads to spurious evidence of an increase in first-day returns. First, we report DID regression results using SRCs rather than large issuers as the control group where we classify SRCs following Chaplinsky's et al. (2017) broad definition as issuers with IPO proceeds below \$75MN. Consistent with their evidence of an increase in first-day returns for EGCs versus SRCs, Column 1 shows that the coefficient on $EGC \times POST$ is significantly positive. However, after the inclusion of issuer characteristics and sector fixed effects in Column 2, the coefficient on the interaction term, while remains relatively intact in terms of magnitude, becomes statistically insignificant. Second, we repeat this analysis but

¹⁵ Different from Barth et al. (2017), Chaplinsky et al. (2017) use a pre-JOBS Act window that stretches as far back as January 1, 2003. Bertrand et al. (2004), however, show that the use of a long time series is problematic for DID estimators when there is serial correlation in the dependent variable. The use of a long time series is especially problematic for research on the effect of the JOBS Act due to serial correlation in IPO market returns.

identify SRCs by hand-collecting information directly from the IPO registration statements. The DID regression results in Columns 3 and 4 show that the interaction term is indistinguishable from zero both before and after the inclusion of our control variables.

Viewed as a whole, these results highlight that the misclassification of non-SRC EGC issuers as SRCs can lead to spurious evidence of a differential post- effect on the first-day returns of EGC issuers relative to SRC issuers. Nevertheless, we reiterate that the group of SRCs does not offer a control group of entirely unaffected issuers to begin with.

3.2 Pre-IPO valuation multiples

The portfolio and regression results provide evidence that changes in overall IPO market conditions coincident with the passage of the JOBS Act explain the seeming increase in the IPO underpricing of EGC issuers. While prior studies point to the pre-versus-post JOBS Act increase of first-day returns as conclusive evidence of an increase in the cost of equity capital for EGC issuers, we provide evidence that EGCs raise capital at significantly higher pre-IPO valuation multiples post-JOBS Act.

Multiples are widely used in practice when valuing IPOs (e.g., Kim and Ritter 1999; Guo et al. 2005). Our analysis of pre-IPO valuation multiples offers a direct test of pre-market discounting by underwriters. Higher IPO underpricing would imply heavier pre-IPO discounting and, therefore, lower pre-IPO valuation multiples for EGC issuers going public post-JOBS Act. We measure pre-IPO valuation multiples based on the ratio of IPO value divided by pre-IPO fundamentals.¹⁶ Because pre-IPO earnings and book value multiples are negative and, therefore, not meaningful for most new issuers in our sample, we use pre-IPO revenues.¹⁷ To mitigate small and zero denominator problems, we require pre-IPO revenues

¹⁶ With respect to the use of forward multiples, we note that sell-side analysts' coverage typically begins only after the IPO at the end of a quiet period of 25 days following the offering. Therefore, we cannot calculate pre-IPO valuation multiples using analysts' projections of future value drivers.

¹⁷ Revenue multiples are popular in practice because unlike earnings and book value multiples, which are negative for many young and growth companies, revenue multiples can be computed more broadly. Indeed, the majority of IPOs in our sample have a history of losses with 58% of them reporting negative net income and 56% reporting negative equity prior to their IPO. The frequency of new issuers reporting negative book value decreases from 56% pre-IPO to 48% in the first quarter post-IPO due to a variety of factors, such as the conversion of preferred stock to common stock (e.g., Dudley and James 2018).

of at least \$10MN. In untabulated results, we find similar results using alternative minimum revenue cutoffs, including \$1MN, \$5MN, or \$20MN.

Starting with the portfolio results, the pre-post JOBS Act comparisons in Table 5 reveal an *expansion*, rather than a contraction, of pre-IPO valuation multiples for the treatment group of EGC issuers. Panel A of Table 5 shows that the average pre-IPO revenue multiple of EGC issuers increased from $6.3 \times$ in the pre-JOBS Act period to $10.5 \times$ in the post-JOBS Act period. Consistent with a change in overall IPO market conditions, the pre-post JOBS Act comparison in Column 2 also shows a modest expansion in the pre-IPO revenue multiples for the control group of large issuers. The average multiple of large issuers increased from approximately $0.9 \times$ in the pre-JOBS Act period to $1.1 \times$ post-JOBS Act period. Focusing on median values, Panel B of Table 5 provides consistent evidence of expansion in the pre-IPO revenue multiples for the treatment group of EGC issuers. Turning to the DID regression results, Column 1 of Table 6 shows that the coefficient on the interaction $EGC \times POST$ is significantly positive, which is consistent with a differential effect on EGC issuers' pre-IPO multiples relative to large issuers. Column 2 of Table 6, however, shows that the coefficient on the interaction becomes indistinguishable from zero after controlling for issuer characteristics and sector fixed effects. The implication here is that after we account for cross-sectional differences in characteristics, EGCs are indistinguishable from large issuers in terms of their pre-post JOBS Act change in pre-IPO valuation multiples.

Overall, our evidence departs from prior research concluding that EGCs leave more money on the table due to higher IPO underpricing. If it were truly the case that the JOBS Act resulted in higher pre-market discounting by underwriters, we would have detected a contraction rather than an expansion of pre-IPO valuation multiples among EGCs after the passage of the JOBS Act. To shed light on this effect, we next exploit heterogeneity in the use of Title I provisions across EGC issuers.

3.3 Reduced-accounting versus non-reduced accounting EGC issuers

Our earlier evidence on the use of Title I provisions shows that the main source of heterogeneity across EGCs is the choice to present only two years of audited financial statements and two years of selected financial data, rather than the previously required

three- and five-years' worth of data, respectively. Therefore, our cross-sectional tests zero in on heterogeneity in the use of the reduced-accounting disclosure provision.

Given that the reduced-accounting disclosure choice is voluntary, EGCs that are expected to derive the greatest benefits are the most likely to take advantage of the provision. Consistent with this broad idea, we find that reduced-accounting EGCs raise capital at significantly higher pre-IPO valuation multiples. Specifically, Panel A of Table 7 reports mean values across three groups: (a) the pre-JOBS Act group of issuers below the \$1BN revenue cutoff, (b) the post-JOBS Act group of EGCs that did not adopt the reduced-accounting disclosure provision (non-reduced-accounting EGCs), and (c) the post-JOBS Act group of EGCs that adopted the reduced-accounting disclosure provision (reduced-accounting EGCs). The first set of portfolio results shows that while the $(b) - (a)$ spread between non-reduced-accounting EGCs and pre-JOBS Act issuers below the \$1BN revenue cutoff is indistinguishable from zero, the $(c) - (b)$ spread between reduced-accounting EGCs and non-reduced accounting EGCs is significantly positive. It follows that the pre-IPO valuation premium is concentrated in EGC issuers that take advantage of the reduced-accounting disclosure provision.

If the pre-IPO valuation premium reflects overpricing, we should observe that reduced-accounting EGCs are associated with a higher probability of long-term underperformance. To test this prediction, we build on Bessembinder's (2018) measurement of shareholder wealth creation and create an indicator of long-term value destruction for IPOs that subsequently underperform the stock market index $I(\text{Value Destruction})$.¹⁸ We focus on the three years after going public because prior studies on the long-term performance of IPOs typically focus on this window (e.g., Ritter 1991; Loughran and Ritter 1995; Carter et al. 1998). The value destruction indicator is equal to one if the buy-and-hold return from the IPO offer price to the closing price at either the end of the third year of trading or the delisting date is below the buy-and-hold return of the CRSP

¹⁸ In untabulated analyses, we find consistent results using an indicator for IPOs that underperform relative to a portfolio of seasoned companies matched based on industry, size, and book-to-market. We also find consistent results using an indicator for IPOs that underperform relative to 10-year Treasury bonds.

value weighted market index over the same period. The second set of portfolio results in Panel A of Table 7 reports the frequency of value-destructive IPOs across EGC groups.

The evidence shows that nearly two-thirds or 65.7% of reduced-accounting EGCs underperformed the market portfolio in the three years after going public. In comparison, the frequency of value-destructive deals is 48.6% for non-reduced-accounting EGC issuers. Together, the evidence suggests that reduced-accounting EGCs are significantly more prone to overpricing in the immediate IPO aftermarket. To shed light on the implications for individual investors, we explore variation in institutional ownership (IO) across EGC groups. We measure IO as the % of shares held by institutions that report their quarterly holdings in SEC Form 13F and N-30Ds. In general, lower IO indicates higher individual investor ownership and lower investor-base sophistication (e.g., Nagel 2005). We use the average level of IO over the three-year period starting from the IPO date. We find similar results using the first available value of IO after the IPO date.

With respect to changes in ownership structure, Barth et al. (2017) find an overall increasing trend in IO for EGCs post-JOBS Act. Consistent with this trend, we find that a 7.2 percentage point increase in IO across EGC issuers. Separating EGCs based on whether they availed themselves of the reduced accounting provision uncovers distinct dynamics across issuer groups. The third set of portfolio results in Panel A of Table 7 reveals that the increasing trend in institutional ownership is primarily due to the group of non-reduced-accounting EGC issuers. While the pre-JOBS Act level of IO for issuers below the \$1BN revenue cutoff is 51.3%, it increases by 11 percentage points to 62.3% for non-reduced accounting EGCs, and only by 2.6 percentage points to 53.9% for reduced accounting EGC issuers. The $(c) - (b)$ spread is negative indicating that the post-JOBS Act level of IO is significantly lower for reduced-accounting EGCs relative to non-reduced accounting EGC issuers. One relevant implication is that individual investors may have been disproportionately exposed to shareholder value destruction in the IPO aftermarket post-JOBS Act. This evidence is consistent with Field and Lowry's (2009) conclusion that while institutional investors have the ability to use publicly available information to avoid the worst-performing IPO stocks, individual investors tend to ignore firm fundamentals when investing in IPO stocks.

To complement the portfolio analysis, Panel B of Table 7, reports regression results from the following model

$$Y_i = \alpha + \beta_1 EGC_i \times POST_i \times RA_i + \beta_2 EGC_i \times POST_i + \beta_3 EGC_i + \beta_4 POST_i + \sum_k \gamma_k \times C_{k,i} + \sum_j \delta_j \times \theta_{j,i} + \varepsilon_i \quad (2)$$

The right-hand-side variable RA_i is an indicator variable for the post-JOBS Act group of reduced-accounting EGC issuers. With respect to the interpretation of the regression estimates in equation (2), the coefficient on EGC captures the pre-JOBS Act difference between large issuers above the \$1BN revenue cutoff and issuers below the \$1BN revenue cutoff. The coefficient on $POST$ captures the pre-versus-post JOBS Act trend in large issuers. The coefficient on the interaction $EGC \times POST$ captures the pre-versus-post trend in the group of non-reduced-accounting EGCs post JOBS Act and issuers below the \$1BN revenue cutoff pre-JOBS Act relative to the pre-versus-post trend in the group of large issuers. The coefficient on the triple interaction $EGC \times POST \times RA$ captures the post-JOBS Act difference between reduced-accounting EGCs and non-reduced-accounting EGC issuers.

The regression results are consistent with the portfolio analysis. When the outcome variable is the pre-IPO valuation multiple, the coefficient estimate on $EGC \times POST \times RA$ is significantly positive and the coefficient estimate on $EGC \times POST$ is indistinguishable from zero. In combination, these coefficient estimates confirm that the pre-IPO valuation premium is concentrated in reduced-accounting EGC issuers. The evidence also confirms that the group of reduced-accounting EGCs is associated with higher likelihood of shareholder value destruction and lower level of IO relative to non-reduced accounting EGC issuers, respectively. Importantly, the coefficient estimates on the triple interaction $EGC \times POST \times RA$ become indistinguishable from zero after controlling for issuer characteristics and sector fixed effects. This result points to fundamental differences across EGC groups.

Following this lead, Table 8 compares issuer characteristics across reduced- and non-reduced accounting EGC issuers. While our objective is not to build an exhaustive selection model, the comparison reveals key differences across EGC groups. Reduced-accounting EGCs tend to smaller, more R&D intensive, and less profitable, as indicated by the lower return on

assets and the higher frequency of negative earnings and book value of equity, relative to non-reduced accounting EGC issuers. These characteristics are associated with more speculative valuation profiles and a higher tendency for overpricing (e.g., Purnanandam and Swaminathan 2004; Field and Lowry 2009; Aboody et al. 2018; Patatoukas et al. 2021). Furthermore, reduced-accounting EGCs are also more likely to be biotech issuers with VC funding and are less likely to engage reputable IPO underwriters.

The cross-sectional differences across EGC groups imply that it is not the reduced-accounting provision choice *per se* leading to more prevalent overpricing but rather the fundamental characteristics of EGCs that choose to avail themselves of this provision. We further note that evidence that reduced-accounting EGCs have more speculative valuation profiles and are more prone to long-term shareholder value destruction is consistent with the view that individual investors are attracted to lottery-type stocks (e.g., Barberis and Huang 2008; Han and Kumar 2013; Kumar 2009).¹⁹

4. Conclusion

Using a DID design, we provide evidence that changes in overall IPO market conditions coincident with the JOBS Act explain the seeming increase in the IPO underpricing of EGC issuers. In contrast to prior evidence that EGCs leave more money on the table due to higher pre-market discounting by underwriters, we find that EGCs raise capital at significantly higher pre-IPO valuation multiples. This pre-IPO valuation premium is concentrated in EGCs that take advantage of the reduced-accounting disclosure provision of the JOBS Act. Reconstructing the typical issuer profile, we document that reduced-accounting EGCs have more speculative valuation profiles, lower institutional ownership, and are more likely to destroy long-term shareholder value. A relevant implication is that inferences regarding the effect of the JOBS Act on IPO pricing are confounded by overall time trends that are concurrent with the passage of the Act.

¹⁹Lottery-type stocks have positively skewed returns and earn negative average excess returns. In untabulated analyses, we find that reduced-accounting EGCs with below-median institutional ownership have underperformed the stock market index by -38.6% in the three years post-IPO. This observation highlights the risks to Main Street investors from actively targeting EGC issuers in the IPO aftermarket.

Overall, our paper offers an alternative perspective on the effect of the JOBS Act on IPO pricing. Different from Barth's et al. (2017) focus on the pre-versus-post comparison of issuers below the \$1BN revenue cutoff, our DID research design controls for intertemporal changes in overall IPO market conditions that are common across the treatment group of EGC issuers and the control group of large issuers. And different from Chaplinsky's et al. (2017) focus on the pre-post comparison of SRC and non-SRC EGCs, we identify large issuers as a control group that, unlike SRCs, are not eligible for EGC status and were not affected by any of the Title I provisions afforded by the JOBS Act.

With respect to policy making, our evidence that individual investors may have been disproportionately exposed to shareholder value destruction post-JOBS Act could inform the SEC's efforts to facilitate capital formation while protecting the interests of Main Street investors. The evidence is especially timely considering the SEC's rule extending EGC accommodations to non-EGC issuers (SEC Release, [No. 33-10699](#)). Under this rule, effective December 3, 2019, all initial registrants can test the waters with certain institutional investors prior to filing a registration statement. This rule found support as one that will result in additional offerings and more investment opportunities without raising significant investor protection concerns (SEC Public Statement, [9/26/2019](#)).

We do not dispute that enhancing the ability to conduct a successful registered offering would ultimately provide more opportunities to invest in public companies. Yet, our evidence highlights that regulators should balance the benefits of increasing the number of IPO registrants against the costs of enabling speculative issuers to go public with reduced financial disclosures. With respect to investor protection in the IPO aftermarket, the quality of IPOs is as important, if not more so, than the quantity of IPOs. On the part of Main Street investors, our evidence calls attention to the risks of actively targeting IPO stocks with speculative valuation profiles.

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Appendix 1
Overview of Title I provisions

Provision Type	Provisions	EGC issuers	Large issuers	SRC Issuers
De-risking	Testing the Waters	New	Not applicable	New
De-risking	Confidential Filing	New	Not applicable	New
De-burdening	Reduced Accounting	New	Not applicable	Old
De-burdening	Reduced Compensation	New	Not applicable	Old
De-burdening	Omit CDA	New	Not applicable	Old
De-burdening	Delay SOX	New	Not applicable	Old
De-burdening	Delay GAAP	New	Not applicable	New

Testing the Waters: The testing-the-waters provision allows issuers to engage in oral or written communications with potential investors that are qualified institutional buyers or institutions that are accredited investors prior to filing a registration statement.

Confidential Filing: The confidential filing provision allows issuers to submit a draft of their IPO registration statement to the SEC for confidential review as long as the initial confidential submission and all amendments are publicly filed with the SEC not later than 15 days before the start of the issuer’s IPO roadshow.

Reduced Accounting: The reduced-accounting provision allows companies to present only two years of audited financial statements and two years of selected financial data in their IPO filing, rather than the previously required three years of audited financial statements and five years of selected financial data.

Reduced Compensation: EGC issuers may provide compensation disclosure for three named executive officers instead of five.

Omit CDA: The omit CDA provision allows EGC issuers to omit a Compensation Discussion and Analysis (CDA) section.

Delay SOX: EGC issuers may choose to delay having internal control over financial reporting audited by independent registered public accounting firm under Section 404(b) of the Sarbanes-Oxley Act.

Delay GAAP: The delay GAAP provision allows EGC issuers to delay adopting new or revised accounting standards until those standards apply to private companies.

Appendix 2
Sample construction steps

	Dif.	Obs.
All issuers who filed their registration statements on Form S-1 and went public between January 1, 2009, and December 31, 2015.		974
Restrict sample to offerings of common/ordinary (Class A and Class B) shares that are not unit offerings, rights offerings, ADRs, limited partnership interests, closed-end funds, and REITs.	-146	828
Exclude issuers with offer price below \$1, missing first-day closing price, and pre-IPO total assets below \$1MN.	-27	801
Exclude issuers that filed their first registration statement before the JOBS Act and went public after the Act.	-51	750
Exclude issuers post-JOBS Act that were eligible for EGC status but did not adopt the status.	-9	741
Exclude issuers that identified as SRCs in their IPO registration statements.	-64	677

Appendix 3 Key variable definitions

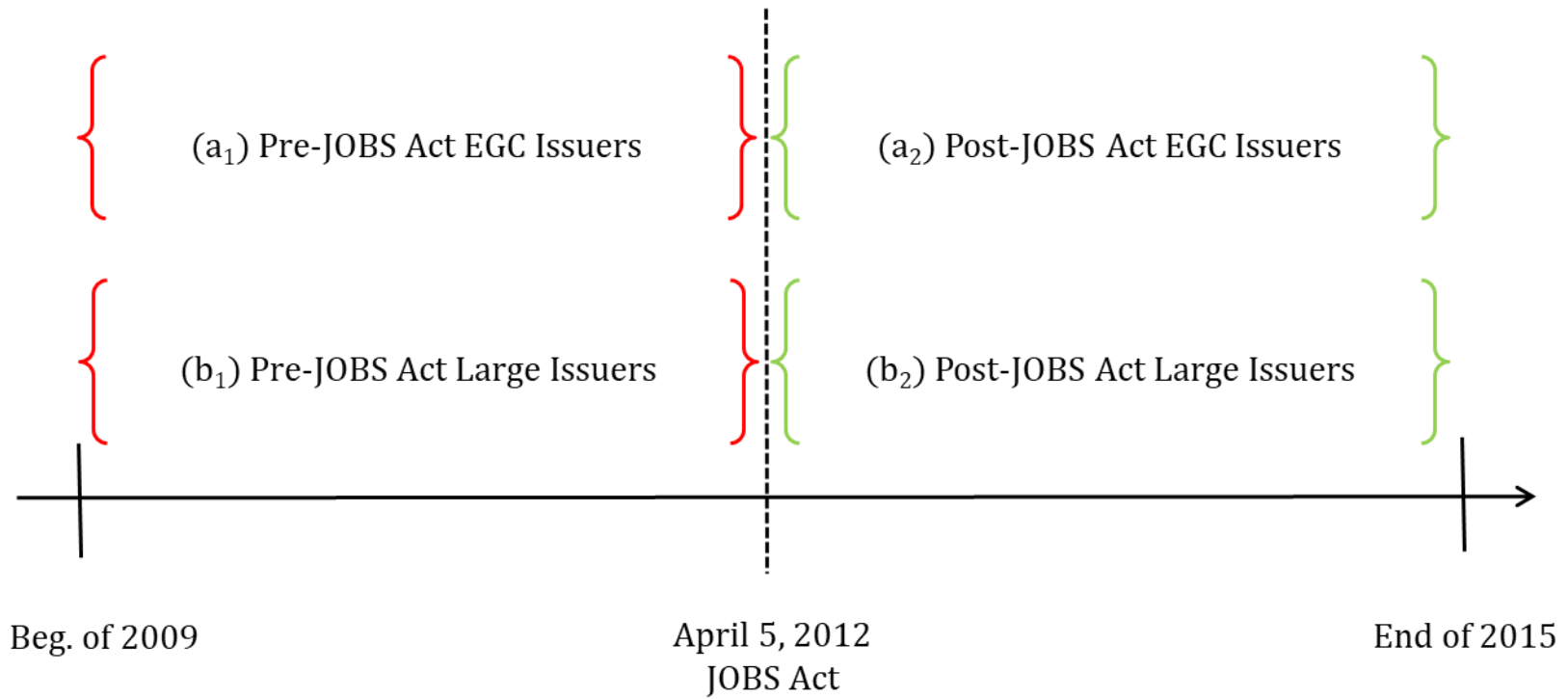
Outcome Variables	
<i>ARET</i> [<i>D, W, M</i>]	Buy-and-hold market-adjusted return from the offer price to the closing price at the end of the first day (<i>D</i>), first week (<i>W</i>), and first month (<i>M</i>) of trading. We use the CRSP value-weighted index including distributions for the market index. Specifically, we calculate the return for firm <i>i</i> in year <i>t</i> as follows: $\prod_1^T (1 + r_{it}) - \prod_1^T (1 + r_{mt}).$
<i>IPO Value / Revenues</i>	The ratio of IPO value divided by pre-IPO revenues. IPO value measured as the product of the offer price times the total number of shares outstanding (including all share classes) in the company after the IPO (<i>IPO Value</i>) We require pre-IPO revenues to be at least \$10MN.
<i>I(Value Destruction)</i>	An indicator variable = 1 if the buy-and-hold return from the IPO offer price to the closing price at either the end of the third year of trading or the delisting date is below the buy-and-hold return of the CRSP value weighted stock market index including distributions over the same period.
<i>Instit. Owner.</i>	Fraction of shares outstanding held by institutions that report their quarterly holdings in SEC Form 13F and N-30Ds. We use the average level of institutional ownership over the three-year period starting from the IPO date.

Issuer Characteristics	
<i>log(Age)</i>	Natural logarithm of firm age measured as one plus the difference in years between the IPO date and the firm's founding or incorporation date. We obtain founding_year data from Jay Ritter's website.
<i>log(AT)</i>	Natural logarithm of the dollar amount of total assets (\$MN) in the most recent complete fiscal year prior to the IPO.
<i>log(Revenues)</i>	Natural logarithm of one plus revenues (\$MN) in the most recent complete fiscal year prior to the IPO.
<i>log(Proceeds)</i>	Natural logarithm of total dollar gross proceeds (\$MN) excluding the overallotment option.

<i>%Retained</i>	Fraction of shares outstanding in the company that is retained by pre-IPO shareholders.
<i>% Δ Offer Price</i>	Percentage change in offer price from the midpoint of the preliminary offer price range.
<i>log(Days to IPO)</i>	Natural logarithm of the number of days between the S-1 filing date and the IPO date.
<i>Return on Assets</i>	Net income divided by total assets both measured in the most recent complete fiscal year prior to the IPO. To mitigate the effect of influential observations, we winsorize absolute values of ROA that are greater than 100 percent.
<i>R&D Intensity</i>	R&D expense divided by total assets both measured in the most recent complete fiscal year prior to the IPO. To mitigate the effect of influential observations, we winsorize absolute values of R&D intensity that are greater than 100 percent.
<i>CAPEX Intensity</i>	Capital expenditure divided by total assets both measured in the most recent complete fiscal year prior to the IPO. To mitigate the effect of influential observations, we winsorize absolute values of CAPEX intensity that are greater than 100 percent.
<i>I(NI < 0)</i>	An indicator variable that = 1 if the company reports negative net income in the most recent complete fiscal year prior to the IPO; = 0 otherwise.
<i>I(BVE < 0)</i>	An indicator variable that = 1 if the company reports negative book value of equity in the most recent complete fiscal year prior to the IPO; = 0 otherwise.
<i>I(R&D > 0)</i>	An indicator variable that = 1 if the company reports positive R&D expense in the most recent complete fiscal year prior to the IPO; = 0 otherwise.
<i>I(VC)</i>	An indicator variable = 1 if the issuer has venture-capital backing; = 0 otherwise.
<i>I(Soft Tech)</i>	An indicator variable = 1 if the issuer is in the Internet Software & Services industry (GICS Code 451010) or the Software industry (GICS Code 451030); = 0 otherwise.
<i>I(Bio Tech)</i>	An indicator variable = 1 if the issuer is in the Biotechnology industry (GICS Code 352010) or the Pharmaceutical industry (GICS Code 352020); = 0 otherwise.

<i>I(NASDAQ)</i>	An indicator variable = 1 if the issuer is listed on NASDAQ; = 0 otherwise.
<i>I(NYSE)</i>	An indicator variable = 1 if the issuer is listed on NYSE; = 0 otherwise.
<i>I(HQU)</i>	An indicator variable that = 1 if Loughran and Ritter's (2004) IPO underwriter rank score is = 9; = 0 otherwise. We obtain underwriter rank data from Jay Ritter's website.
<i>I(BIG4)</i>	An indicator variable = 1 if the issuer is audited by Deloitte, Ernest & Young, KPMG, or PwC; = 0 otherwise.
<i># IPO₋₉₀</i>	Number of IPOs in registration in the 90 days prior to the IPO.
<i>NASDAQ₋₉₀</i>	Average buy-and-hold return of all NASDAQ-traded stocks during the 90 days prior to the IPO.

Figure 1
Illustration of research design



This figure illustrates our DID research design. The DID estimates the differential effect of the JOBS Act on the treatment group of EGCs; that is, $(a_2) - (a_1)$, relative to the control group of large issuers; that is, $(b_2) - (b_1)$. The JOBS Act was signed into law on April 5, 2012. The pre-JOBS Act period begins on January 1, 2009. The post-JOBS Act period ends on December 31, 2015. Throughout the paper, we refer to issuers below the \$1BN revenue cutoff as EGC issuers even though the term “EGC” was introduced only after the passage of the JOBS Act.

Table 1
Empirical distributions

Panel A: Aggregate statistics for U.S. operating company IPOs, Jan. 2009-Dec. 2015.

	(a) EGC Issuers	(b) Large Issuers	(b)/(a + b)
Number of Issuers	582	95	14%
Proceeds (\$BN)	89.2	82.2	48%
IPO Value (\$BN)	441.1	375.4	46%
Revenues (\$BN)	89.6	511.1	85%
Employees (000s)	556.5	2,140.8	79%

Panel B: Sample distribution across sectors.

	All Issuers	EGC Issuers	%	Large Issuers	%
Healthcare	228	215	36.9%	13	13.7%
Information Technology	157	146	25.1%	11	11.6%
Consumer Discretionary	86	64	11.0%	22	23.2%
Financials	82	71	12.2%	11	11.6%
Industrials	48	34	5.8%	14	14.7%
Energy	35	28	4.8%	7	7.4%
Consumer Staples	20	11	1.9%	9	9.5%
Materials	15	7	1.2%	8	8.4%
Utilities	6	6	1.0%	0	0.0%
Total	677	582	100.0%	95	100.0%

Panel C: Empirical distributions of key variables.

	Mean	Std. Dev.	p25	p50	p75
<i>ARET[D]</i>	0.168	0.280	-0.001	0.091	0.252
<i>ARET[W]</i>	0.175	0.282	-0.006	0.103	0.280
<i>ARET[M]</i>	0.205	0.324	-0.001	0.135	0.327
<i>IPO Value/Revenues</i>	7.500	18.738	1.343	3.333	7.335
<i>I(Value Destruction)</i>	55%	50%	0%	100%	100%
<i>Instit. Owner.</i>	0.586	0.278	0.401	0.595	0.800
<i>Age</i>	21.9	26.3	8.0	12.0	21.0
<i>AT (\$MN)</i>	1,932.7	11,507.9	43.8	123.6	861.8
<i>Revenues (\$MN)</i>	887.3	4,715.6	22.2	91.1	342.8
<i>Proceeds (\$MN)</i>	253.1	706.6	70.4	107.8	222.2
<i>%Retained</i>	73%	16%	69%	76%	82%
<i>%Δ(Offer Price)</i>	-3%	15%	-13%	0%	7%
<i>Days to IPO</i>	112	130	37	76	117
<i>Return on Assets</i>	-0.19	0.39	-0.38	-0.03	0.03
<i>R&D Intensity</i>	0.21	0.30	0.00	0.05	0.32
<i>CAPEX Intensity</i>	0.06	0.09	0.01	0.03	0.06
<i>I(NI < 0)</i>	58%	49%	0%	100%	100%
<i>I(BV < 0)</i>	56%	50%	0%	100%	100%
<i>I(R&D > 0)</i>	60%	49%	0%	100%	100%
<i>I(VC)</i>	50%	50%	0%	100%	100%
<i>I(Soft Tech)</i>	16%	37%	0%	0%	0%
<i>I(Bio Tech)</i>	24%	43%	0%	0%	0%
<i>I(NASDAQ)</i>	58%	49%	0%	100%	100%
<i>I(NYSE)</i>	41%	49%	0%	0%	100%
<i>I(HQU)</i>	50%	50%	0%	0%	100%
<i>I(BIG4)</i>	83%	37%	100%	100%	100%
<i># IPO₋₉₀</i>	57.8	16.9	48.0	59.0	72.0
<i>NASDAQ₋₉₀</i>	6.4%	8.8%	-0.1%	6.5%	11.9%

Panel D: Mean value comparison of EGC and large issuers.

	EGC Issuers	Large Issuers	Difference	T-stat
<i>ARET[D]</i>	0.179	0.103	0.076***	(2.65)
<i>ARET[W]</i>	0.182	0.132	0.050*	(1.73)
<i>ARET[M]</i>	0.214	0.147	0.067*	(1.82)
<i>IPO Value/Revenues</i>	8.876	1.023	7.853***	(4.36)
<i>I(Value Destruction)</i>	0.572	0.389	0.183***	(4.82)
<i>Instit. Owner.</i>	0.561	0.756	-0.195***	(-4.89)
<i>Age</i>	17.1	51.3	-34.2***	(-5.86)
<i>AT (\$MN)</i>	407.6	11,276.0	-10,868.4**	(-2.48)
<i>Revenues (\$MN)</i>	153.9	5,380.2	-5,226.3***	(-5.17)
<i>Proceeds (\$MN)</i>	153.2	864.9	-711.7***	(-6.36)
<i>%Retained</i>	0.723	0.749	-0.026	(-0.68)
<i>%Δ(Offer Price)</i>	-0.025	-0.040	0.014	(0.67)
<i>Days to IPO</i>	103.8	165.2	-61.4***	(-6.15)
<i>Return on Assets</i>	-0.229	0.016	-0.246*	(-1.87)
<i>R&D Intensity</i>	0.245	0.009	0.235**	(2.15)
<i>CAPEX Intensity</i>	0.062	0.032	0.031**	(2.34)
<i>I(NI < 0)</i>	0.617	0.347	0.269**	(2.01)
<i>I(BV < 0)</i>	0.608	0.263	0.345***	(4.17)
<i>I(R&D > 0)</i>	0.651	0.274	0.378***	(2.71)
<i>I(VC)</i>	0.581	0.011	0.570***	(4.33)
<i>I(Soft Tech)</i>	0.182	0.011	0.172	(1.11)
<i>I(Bio Tech)</i>	0.271	0.032	0.240	(1.40)
<i>I(HQU)</i>	0.469	0.674	-0.205***	(-3.06)
<i>I(BIG4)</i>	0.811	0.979	-0.168***	(-3.40)
<i># IPO₋₉₀</i>	58.0	56.6	1.4	(0.95)
<i>NASDAQ₋₉₀</i>	0.062	0.073	-0.011***	(-2.76)

This table provides descriptive statistics for our sample of 677 U.S. IPOs from January 1, 2009, to December 31, 2015. Panel A reports aggregate statistics separately for the treatment group of EGC issuers and the control group of large issuers. Panel B reports the sample distribution across two-digit GICS sectors. Panel C reports the pooled empirical distributions of key variables. Panel D compares the mean values of outcome variables and issuer characteristics for EGC and large issuers. We report T-statistics in parentheses. ***, **, and * indicate statistical significance at the 1%, 5%, and 10% level, respectively, using two-tailed tests. Standard errors are clustered by two-digit GICS code and IPO month. Appendix 2 provides detailed variable definitions.

Table 2
Title I provision frequencies

Panel A: Title I provision frequencies across years.

IPO Year	Obs.	De-Risking Provisions		De-Burdening Provisions					Use of Provisions	
		TTW	Confid.	Red. Acc.	Red. Comp.	Omit CDA	Delay SOX	Delay GAAP	Sum of Provisions	% Of ≥4 Provisions
2012	15	73%	67%	13%	80%	73%	100%	7%	4.1	67%
2013	112	87%	92%	35%	91%	97%	100%	15%	5.1	96%
2014	153	92%	96%	54%	97%	98%	100%	9%	5.4	98%
2015	100	96%	95%	48%	96%	99%	100%	8%	5.3	99%
Pooled	380	91%	93%	45%	94%	97%	100%	11%	5.2	97%

Panel B: Title I provision frequencies across sectors.

GICS Sector	Obs.	De-Risking Provisions		De-Burdening Provisions					Use of Provisions	
		TTW	Confid.	Red. Acc.	Red. Comp.	Omit CDA	Delay SOX	Delay GAAP	# Of Provisions	% Of ≥4 provisions
Healthcare	171	99%	97%	74%	96%	99%	100%	9%	5.7	99%
Information Tech.	84	88%	94%	10%	90%	96%	100%	6%	4.8	95%
Financials	44	73%	84%	27%	89%	91%	100%	11%	4.7	89%
Consumer Discret.	42	83%	93%	24%	93%	95%	100%	5%	4.9	95%
Energy	13	77%	85%	46%	100%	100%	100%	15%	5.2	100%
Industrials	11	82%	91%	36%	100%	100%	100%	36%	5.5	100%
Consumer Staples	6	100%	100%	33%	100%	83%	100%	17%	5.2	100%
Utilities	6	100%	83%	50%	100%	100%	100%	50%	5.8	100%
Materials	3	67%	67%	0%	100%	100%	100%	67%	5.0	100%
Pooled	380	91%	93%	45%	94%	97%	100%	11%	5.2	97%

Description: This table reports the frequency distribution of EGC issuers electing each provision afforded by Title I of the JOBS Act over time (Panel A) and across two-digit GICS sectors (Panel B). The post-JOBS Act sample includes 380 EGC issuers from April 5, 2012, to December 31, 2015, Appendix 1 provides a detailed description of the Title I provisions.

Interpretation: EGC issuers have elected to avail themselves of the Title I provisions at an increasing rate, and in the three years after the passage of the JOBS Act, the main source of heterogeneity in the use of Title I provisions across EGCs is the reduced-accounting disclosure provision.

Table 3
IPO aftermarket returns: Portfolio analysis

Panel A: EGC issuers.

	Obs.	IPO returns		
		<i>ARET</i> [<i>D</i>]	<i>ARET</i> [<i>W</i>]	<i>ARET</i> [<i>M</i>]
(a) EGC Pre	202	0.135*** (3.29)	0.128*** (2.99)	0.132*** (2.80)
(b) EGC Post	380	0.202*** (7.70)	0.211*** (8.00)	0.258*** (7.28)
(b) – (a)		0.067** (2.18)	0.084** (2.22)	0.126** (2.06)

Panel B: Large issuers.

	Obs.	IPO returns		
		<i>ARET</i> [<i>D</i>]	<i>ARET</i> [<i>W</i>]	<i>ARET</i> [<i>M</i>]
(a) Large Pre	39	0.064*** (3.48)	0.084*** (7.49)	0.080*** (5.73)
(b) Large Post	56	0.130*** (4.87)	0.166*** (6.49)	0.194*** (5.97)
(b) – (a)		0.066*** (3.24)	0.082*** (3.03)	0.114*** (3.20)

Description: This table explores variation in the IPO aftermarket returns for our sample of EGC and large issuers pre- and post-JOBS Act. The pre-period is from the beginning of 2009 to April 4, 2012, and the post-period is from April 5, 2012, to December 31, 2015. We measure buy-and-hold market-adjusted returns from the IPO offer price to the closing price at the end of the first day (*D*), first week (*W*), and first month of trading (*M*). We report T-statistics in parentheses. ***, **, and * indicate statistical significance at the 1%, 5%, and 10% level, respectively, using two-tailed tests. Standard errors are clustered by two-digit GICS code and IPO month. The sample includes 677 U.S. IPOs from January 1, 2009, to December 31, 2015.

Interpretation: The pre-post JOBS Act comparison of EGC issuers shows that first-day returns increased by 6.7 percentage points. We find a placebo effect of similar magnitude for large issuers.

Table 4
IPO aftermarket returns: DID regression analysis

	<i>Dependent Variable =</i>					
	<i>ARET[D]</i>		<i>ARET[W]</i>		<i>ARET[M]</i>	
	(1)	(2)	(3)	(4)	(5)	(6)
<i>EGC × POST</i>	0.001 (0.02)	-0.027 (-0.58)	0.002 (0.05)	-0.014 (-0.26)	0.012 (0.21)	-0.035 (-0.52)
<i>EGC</i>	0.072* (1.88)	-0.011 (-0.25)	0.044 (1.13)	-0.036 (-0.96)	0.052 (1.15)	-0.047 (-0.78)
<i>POST</i>	0.066*** (3.28)	0.050 (1.57)	0.082*** (3.06)	0.066** (1.97)	0.114*** (3.23)	0.119*** (2.64)
Issuer Characteristics	No	Yes	No	Yes	No	Yes
Sector Fixed Effects	No	Yes	No	Yes	No	Yes
Adj. R ²	2%	27%	2%	23%	3%	18%
Obs.	677	677	677	677	677	677

Description: This table reports DID regression results zeroing on the differential pre-post JOBS Act change between the treatment group of EGC issuers (582 cases) and the control group of large issuers (95 cases). The set of left-hand-side variables includes the buy-and-hold market-adjusted returns from the IPO offer price to the closing price at the end of the first day (*D*), first week (*W*), and first month of trading (*M*). The set of right-hand-side variables includes the indicator for EGC issuers (*EGC*), the indicator for the post-JOBS Act period (*POST*), the interaction *EGC × POST*, a vector of issuer characteristics described in Appendix 2 (also itemized in Section 3.1), and sector fixed effects based on two-digit GICS codes. We report T-statistics in parentheses. ***, **, and * indicate statistical significance at the 1%, 5%, and 10% level, respectively, using two-tailed tests. Standard errors are clustered by two-digit GICS code and IPO month. The sample includes 677 U.S. IPOs from January 1, 2009, to December 31, 2015.

Interpretation: The DID regression results show that the differential pre-post change between the treatment group of EGC issuers vis-à-vis the control group of large issuers is indistinguishable from zero.

Table 5
Pre-IPO valuation multiples: Portfolio analysis

Panel A: Mean values.

	EGC Issuers		Large Issuers	
	Obs.	<i>IPO Value/ Revenues</i>	Obs.	<i>IPO Value/ Revenues</i>
(a) Pre	174	6.261*** (7.70)	39	0.910*** (7.96)
(b) Post	273	10.543*** (4.37)	56	1.102*** (11.45)
(b) – (a)		4.282** (2.28)		0.192* (1.81)

Panel B: Median values.

	EGC Issuers		Large Issuers	
	Obs.	<i>IPO Value/ Revenues</i>	Obs.	<i>IPO Value/ Revenues</i>
(a) Pre	174	3.645*** (0.00)	39	0.725*** (0.00)
(b) Post	273	4.946*** (0.00)	56	0.901*** (0.00)
(b) – (a)		1.301*** (0.01)		0.177 (0.32)

Description: This table explores variation in the pre-IPO revenue multiples of EGC and large issuers pre- and post-JOBS Act. The pre-period is from the beginning of 2009 to April 4, 2012, and the post-period is from April 5, 2012, to December 31, 2015. We measure the pre-IPO revenue multiple as the ratio of IPO value divided by pre-IPO revenues. We measure IPO value as the product of the offer price times the number of shares outstanding in the company across all shares after the IPO. To mitigate the effect of influential observations, we require pre-IPO revenues to be at least \$10MN. Panel A (Panel B) presents mean (median) values and report two-tailed t-values (p-values) in parentheses obtained from t-tests (Wilcoxon signed-rank tests). ***, **, and * indicate statistical significance at the 1%, 5%, and 10% level, respectively. Standard errors are clustered by two-digit GICS code and IPO month. The sample includes 542 IPOs from January 1, 2009, to December 31, 2015.

Interpretation: The pre-post JOBS Act comparisons reveal an expansion, rather than a contraction, of pre-IPO valuation multiples for the treatment group of EGC issuers.

Table 6
Pre-IPO valuation multiples: DID regression analysis

	<i>Dependent Variable = IPO Value / Revenues</i>	
	(1)	(2)
<i>EGC × POST</i>	4.090** (2.16)	3.802 (1.33)
<i>EGC</i>	5.351*** (6.61)	-10.146* (-1.67)
<i>POST</i>	0.192* (1.83)	-4.819 (-1.59)
Issuer Characteristics	No	Yes
Sector Fixed Effects	No	Yes
Adj. R ²	3%	35%
Obs.	542	542

Description: This table reports DID regression results zeroing on the differential pre-post JOBS Act change in pre-IPO revenue multiples between the treatment group of EGC issuers with pre-IPO revenues of at least \$10MN (447 cases) and the control group of large issuers (95 cases). The set of left-hand-side variable is pre-IPO revenue multiples. The set of right-hand-side variables includes the indicator for EGC issuers (*EGC*), the indicator for the post-JOBS Act period (*POST*), the interaction *EGC × POST*, a vector of issuer characteristics described in Appendix 2, and sector fixed effects based on two-digit GICS codes. We report T-statistics in parentheses. ***, **, and * indicate statistical significance at the 1%, 5%, and 10% level, respectively, using two-tailed tests. Standard errors are clustered by two-digit GICS code and IPO month. The sample period is from January 1, 2009, to December 31, 2015.

Interpretation: The DID regression results confirm that EGC issuers experience a significant expansion in their pre-IPO revenue multiples post-JOBS Act. The differential expansion in the multiples of EGCs vs. large issuers is indistinguishable from zero after we account for cross-sectional differences in characteristics.

Table 7
Reduced-accounting EGC issuers: Variation in pre-IPO valuation multiples, shareholder value destruction, and institutional ownership

Panel A: Portfolio analysis.

	<i>IPO Value / Revenues</i>		<i>I(Value Destruction)</i>		<i>Instit. Owner.</i>	
	Obs.	Mean Values	Obs.	Mean Values	Obs.	Mean Values
(a) EGC Pre	174	6.261*** (7.70)	202	0.589*** (40.94)	187	0.513*** (17.21)
(b) EGC Post RA = 0	188	6.996*** (5.50)	208	0.486*** (13.39)	203	0.623*** (19.25)
(c) EGC Post RA = 1	85	18.389*** (3.82)	172	0.657*** (94.31)	168	0.539*** (32.07)
(b) – (a)		0.735 (0.99)		-0.104*** (-6.55)		0.110* (1.93)
(c) – (b)		11.394** (2.47)		0.171*** (3.46)		-0.083*** (-3.49)

Panel B. DID regression analysis.

	<i>Dependent Variable =</i>					
	<i>IPO Value / Revenues</i>		<i>I(Value Destruction)</i>		<i>Instit. Owner.</i>	
	(1)	(2)	(3)	(4)	(5)	(6)
<i>EGC × POST × RA</i>	11.394** (2.48)	4.373 (1.33)	0.171*** (3.48)	0.099 (1.32)	-0.083*** (-3.50)	-0.024 (-1.25)
<i>EGC × POST</i>	0.542 (0.71)	2.701 (1.20)	-0.025 (-0.32)	0.034 (0.37)	0.041 (0.46)	-0.042 (-0.50)
<i>EGC</i>	5.351*** (6.60)	-9.200* (-1.68)	0.153*** (3.01)	0.040 (0.34)	-0.201*** (-4.21)	0.039 (0.65)
<i>POST</i>	0.192* (1.83)	-4.669 (-1.60)	-0.079 (-0.86)	-0.127 (-1.18)	0.068 (0.97)	0.084 (1.16)
Issuer Characteristics	No	Yes	No	Yes	No	Yes
Sector Fixed Effects	No	Yes	No	Yes	No	Yes
Adj. R ²	7%	35%	3%	6%	8%	23%
Obs.	542	542	677	677	643	643

Description: This table provides evidence of variation in pre-IPO revenue multiples, variation in the frequency of shareholder value destruction, and institutional ownership. We measure the pre-IPO revenue multiple as the ratio of IPO value divided by pre-IPO revenues. To mitigate the effect of influential observations, we require revenues to be at least \$10MN. We create an indicator variable of long-term value destruction for IPOs that underperform the stock market index in the three years after going public measured from the offering price (*Value Destruction*). We measure institutional ownership as the fraction of shares outstanding held by institutions that report their quarterly holdings in SEC Form 13F and N-30Ds. We use the average level of institutional ownership over the three-year period starting from the IPO date. Panel A of Table 7 reports average values across three groups of issuers: (a) the pre-JOBS Act group of issuers below the \$1BN revenue cutoff that would have qualified for EGC status had the Act been in effect at the time of their IPO (*EGC Pre*), (b) the post-JOBS Act group of EGC issuers that did not adopt the reduced-accounting disclosure provision (*EGC Post* | *RA* = 0), and (c) the post-JOBS Act group of EGC issuers that adopted the reduced-accounting disclosure provision (*EGC Post* | *RA* = 1). Panel B of Table 7 reports DID regression results. The slope coefficient on the triple interaction $EGC \times POST \times RA$ captures the post-JOBS Act difference between the group of reduced-accounting EGC issuers and the group of non-reduced-accounting EGC issuers. Appendix 2 provides detailed variable definitions. We report T-statistics in parentheses. ***, **, and * indicate statistical significance at the 1%, 5%, and 10% level, respectively, using two-tailed tests. Standard errors are clustered by two-digit GICS code and IPO month. The sample includes 677 U.S. IPOs from 2009 to 2015.

Interpretation: Reduced-accounting EGCs have higher pre-IPO revenue multiples, lower institutional ownership, and are more likely to destroy long-term shareholder value in the IPO aftermarket. The differences in outcomes are explained by cross-sectional differences in characteristics.

Table 8
Reduced-accounting vs. non-reduced-accounting EGCs

	<i>RA = 0</i>	<i>RA = 1</i>	Difference	t-stat
<i>Age</i>	17.120	13.140	-3.981	(-1.29)
<i>AT (\$MN)</i>	521.275	240.447	-280.828*	(-1.72)
<i>Revenues (\$MN)</i>	225.487	49.060	-176.427***	(-3.80)
<i>Proceeds (\$MN)</i>	183.400	111.822	-71.578***	(-3.63)
<i>%Retained</i>	0.763	0.706	-0.057***	(-2.79)
<i>%Δ(Offer Price)</i>	-0.010	-0.044	-0.034***	(-3.39)
<i>Days to IPO</i>	65.683	52.105	-13.578**	(-2.01)
<i>Return on Assets</i>	-0.135	-0.467	-0.331***	(-4.11)
<i>R&D Intensity</i>	0.171	0.424	0.252***	(3.66)
<i>CAPEX Intensity</i>	0.066	0.050	-0.016*	(-1.79)
<i>I(NI < 0)</i>	0.567	0.826	0.258***	(3.03)
<i>I(BV < 0)</i>	0.558	0.779	0.221*	(1.89)
<i>I(R&D > 0)</i>	0.582	0.791	0.209	(1.28)
<i>I(VC)</i>	0.500	0.721	0.221	(1.60)
<i>I(Soft Tech)</i>	0.284	0.029	-0.255	(-1.44)
<i>I(Bio Tech)</i>	0.120	0.628	0.508***	(5.84)
<i>I(HQU)</i>	0.548	0.285	-0.263***	(-3.21)
<i>I(BIG4)</i>	0.822	0.808	-0.014	(-0.35)
<i># IPO₋₉₀</i>	60.125	62.407	2.282***	(3.55)
<i>NASDAQ₋₉₀</i>	0.049	0.044	-0.005	(-0.92)

Description: This table compares the mean values of issuer characteristics for EGCs that did not adopt the reduced-accounting disclosure provision afforded by the JOBS Act (*RA = 0*) and EGCs that took advantage of the reduced-accounting provision (*RA = 1*). The reduced-accounting provision allows companies to present only two years of audited financial statements and two years of selected financial data, rather than the previously required three years of audited financial statements and five years of selected financial data. Appendix 2 describes in detail all issuer characteristics. We report T-statistics in parentheses. ***, **, and * indicate statistical significance at the 1%, 5%, and 10% level, respectively, using two-tailed tests. Standard errors are clustered by two-digit GICS code and IPO month. The sample includes 208 non-reduced-accounting EGCs and 172 reduced-accounting EGCs from April 5, 2012, to December 31, 2015.

Interpretation: Reduced-accounting EGCs are smaller, more R&D intensive, and less profitable. The differences imply that it is not the reduced-accounting provision choice *per se* leading to overpricing but rather the fundamental characteristics of EGCs that choose to scale back their accounting disclosures.

Supplementary Appendix

Table A1: IPO aftermarket returns: DID regression analysis complete output

Table A2: First-day returns: Additional robustness tests

Table A3: First-day returns: Relation to Barth et al. (2017)

Table A4: First-day returns: Relation to Chaplinsky et al. (2017)

Table A1
IPO aftermarket returns: DID regression analysis complete output

	<i>Dependent Variable =</i>					
	<i>ARET[D]</i>		<i>ARET[W]</i>		<i>ARET[M]</i>	
<i>EGC × POST</i>	-0.027	(-0.58)	-0.014	(-0.26)	-0.035	(-0.52)
<i>EGC</i>	-0.011	(-0.25)	-0.036	(-0.96)	-0.047	(-0.78)
<i>POST</i>	0.050	(1.57)	0.066**	(1.97)	0.119***	(2.64)
<i>log(Age)</i>	-0.003	(-0.20)	0.000	(-0.02)	0.001	(0.06)
<i>log(AT)</i>	-0.020	(-1.54)	-0.014	(-1.20)	-0.008	(-0.43)
<i>log(Revenues)</i>	-0.006	(-0.31)	-0.008	(-0.50)	-0.020	(-1.03)
<i>Log(Proceeds)</i>	0.027	(0.67)	0.021	(0.61)	0.015	(0.46)
<i>%Retained</i>	0.106	(0.78)	0.091	(0.73)	0.065	(0.49)
<i>%Δ(Offer Price)</i>	0.680***	(9.60)	0.643***	(9.13)	0.539***	(6.12)
<i>log(Days to IPO)</i>	-0.044**	(-2.27)	-0.037	(-1.37)	-0.045*	(-1.67)
<i>Return on Assets</i>	0.109**	(2.14)	0.179***	(4.11)	0.136***	(3.69)
<i>R&D Intensity</i>	-0.087***	(-3.01)	-0.029	(-0.70)	-0.086*	(-1.95)
<i>CAPEX Intensity</i>	0.050	(0.22)	-0.026	(-0.18)	0.050	(0.44)
<i>I(NI < 0)</i>	0.009	(0.50)	0.005	(0.20)	-0.034**	(-2.06)
<i>I(BVE < 0)</i>	0.013	(0.41)	0.013	(0.42)	0.027	(0.84)
<i>I(R&D > 0)</i>	-0.051	(-1.58)	-0.038	(-0.97)	-0.029	(-0.67)
<i>I(VC)</i>	0.081***	(4.05)	0.088**	(2.58)	0.096	(1.51)
<i>I(Soft Tech)</i>	0.077***	(3.82)	0.021	(1.10)	-0.017	(-0.67)
<i>I(Bio Tech)</i>	0.058	(1.28)	0.048	(1.06)	0.108**	(2.14)
<i>I(NASDAQ)</i>	0.108***	(2.63)	0.122**	(2.20)	0.171***	(2.74)
<i>I(NYSE)</i>	0.066	(1.48)	0.072*	(1.72)	0.125**	(2.56)
<i>I(HQU)</i>	0.036	(1.63)	0.030	(1.06)	0.047	(1.52)
<i>I(BIG4)</i>	0.012	(0.65)	-0.001	(-0.03)	0.020	(0.94)
<i># IPO₋₉₀</i>	0.000	(0.33)	0.000	(0.32)	0.000	(-0.56)
<i>NASDAQ₋₉₀</i>	0.258***	(3.53)	0.160**	(2.04)	0.209*	(1.74)
Sector Fixed Effects	Yes		Yes		Yes	
Adj. R ²	27%		23%		18%	
Obs.	677		677		677	

This table reports DID regression results for our sample of EGC and large issuers pre- and post-JOBS Act. The set of left-hand-side variables includes the buy-and-hold market-adjusted returns from the IPO offer price to the closing price at the end of the first day (*D*), first week (*W*), and first month of trading (*M*). The set of right-hand-side variables includes the indicator for EGC issuers (*EGC*), the indicator for the post-JOBS Act period (*POST*), the interaction *EGC × POST*, a vector of issuer characteristics described in Appendix 2, and sector fixed effects based on two-digit GICS codes. We report T-statistics in parentheses. ***, **, and * indicate statistical significance at the 1%, 5%, and 10% level, respectively, using two-tailed tests. Standard errors are clustered by two-digit GICS code and IPO month. The sample includes 677 U.S. IPOs from January 1, 2009, to December 31, 2015.

Table A2
First-day returns: Additional robustness tests

	<i>Dependent Variable = ARET[D]</i>					
	P-Score matched		Exclude mega issuers		Exclude unicorn IPOs	
	(1)	(2)	(3)	(4)	(5)	(6)
<i>EGC</i> × <i>POST</i>	0.004 (0.21)	0.008 (0.21)	-0.007 (-0.19)	-0.018 (-0.36)	-0.007 (-0.21)	-0.024 (-0.54)
<i>EGC</i>	0.070* (1.67)	0.022 (0.51)	0.068* (1.72)	-0.019 (-0.37)	0.072* (1.88)	-0.012 (-0.27)
<i>POST</i>	0.034*** (2.62)	0.032 (1.51)	0.074*** (3.69)	0.038 (1.06)	0.065*** (3.18)	0.050 (1.44)
Issuer Characteristics	No	Yes	No	Yes	No	Yes
Sector Fixed Effects	No	Yes	No	Yes	No	Yes
Adj. R ²	1%	29%	2%	27%	1%	27%
Obs.	452	452	666	666	664	664

Description: This table reports DID regression results zeroing on the differential pre-post JOBS Act change in first-day returns. The sample in columns (1) and (2) includes propensity-score matched EGC and large issuers. We match pre- with post-JOBS Act issuers separately in the treatment and control groups using nearest-neighbor propensity-score matching (without replacement) by sector. We estimate the propensity scores using the entire vector $C_{k,i}$ of issuer characteristics. The sample in columns (3) and (4) excludes large issuers with pre-IPO revenues in excess of \$10BN. The sample in columns (5) and (6) excludes unicorn IPOs. Using data from CB Insights' tracker of billion-dollar VC-backed exits, we identify 12 Unicorn non-SRC EGC issuers and 1 Unicorn large issuer between November 2, 2013, and December 31, 2015. The sample period is from January 1, 2009, to December 31, 2015. The set of right-hand-side variables includes the indicator for EGC issuers (*EGC*), the indicator for the post-JOBS Act period (*POST*), the interaction *EGC* × *POST*, a vector of issuer characteristics described in Appendix 2, and sector fixed effects based on two-digit GICS codes. We report T-statistics in parentheses. ***, **, and * indicate statistical significance at the 1%, 5%, and 10% level, respectively, using two-tailed tests. Standard errors are clustered by two-digit GICS code and IPO month.

Interpretation: The DID analysis of first-day returns are robust to p-score matched sample and samples that exclude mega issuers and unicorn IPOs.

Table A3
First-day returns: Relation to Barth et al. (2017)

	<i>Dependent Variable = ARET[D]</i>					
	Include SRCs in our treatment group		Restrict pre-post period		Robust regression	
	(1)	(2)	(3)	(4)	(5)	(6)
<i>EGC × POST</i>	0.005 (0.18)	-0.005 (-0.12)	-0.019 (-0.44)	-0.061 (-1.05)	-0.027 (-1.09)	-0.001 (-0.04)
<i>EGC</i>	0.066* (1.93)	-0.036 (-0.82)	0.070* (1.89)	-0.007 (-0.17)	0.052*** (2.93)	0.022 (0.86)
<i>POST</i>	0.066*** (3.28)	0.057* (1.69)	0.121*** (3.89)	0.081** (2.18)	0.040** (2.13)	0.038** (1.99)
Issuer Characteristics	No	Yes	No	Yes	No	Yes
Sector Fixed Effects	No	Yes	No	Yes	No	Yes
Adj. R ²	2%	24%	4%	32%	0%	31%
Obs.	741	741	387	387	677	677

Description: This table reports DID regression results zeroing on the differential pre-post JOBS Act change in first-day returns. In columns (1) and (2), we include SRCs in the treatment group of EGC issuers. In columns (3) and (4), we restrict our baseline sample within the period between July 1, 2009, and December 31, 2013. In columns (5) and (6), we report robust regression results based on Yohai's (1987) MM-estimator for our baseline sample. Appendix 2 provides the variable definitions. We report T-statistics in parentheses. ***, **, and * indicate statistical significance at the 1%, 5%, and 10% level, respectively, using two-tailed tests. Standard errors are clustered by two-digit GICS code and IPO month.

Interpretation: The DID analysis of first-day returns is robust to adding SRC issuers to our treatment group, using Barth et al.'s (2017) sample period, and conducting robust regression analysis.

Table A4
First-day returns: Relation to Chaplinsky et al. (2017)

	<i>Dependent Variable = ARET[D]</i>			
	Use below \$75MN proceed issuers as only control group		Use SRC issuers as only control group	
	(1)	(2)	(3)	(4)
<i>EGC</i> × <i>POST</i>	0.131** (2.29)	0.100 (1.54)	-0.038 (-0.44)	-0.055 (-0.60)
<i>EGC</i>	0.072** (2.08)	0.038 (1.14)	0.054 (0.93)	-0.050 (-0.88)
<i>POST</i>	-0.003 (-0.13)	0.003 (0.07)	0.105 (1.50)	0.096 (0.99)
Issuer Characteristics	No	Yes	No	Yes
Sector Fixed Effects	No	Yes	No	Yes
Adj. R ²	9%	25%	1%	24%
Obs.	646	646	646	646

Description: This table reports DID regression results zeroing on the differential pre-post JOBS Act change in first-day returns. The sample in columns (1) and (2) consists of SRC EGCs, defined as IPO issuers with gross proceeds below \$75MN as the control group and non-SRC EGC issuers as the treatment group. The sample in columns (3) and (4) consists of SRC EGCs, identified using hand-collected information directly from the IPO registration statement, as the control group and non-SRC EGC issuers as the treatment group. The sample period is from January 1, 2009, to December 31, 2015. The set of right-hand-side variables includes the indicator for EGC issuers (*EGC*), the indicator for the post-JOBS Act period (*POST*), the interaction *EGC* × *POST*, a vector of issuer characteristics described in Appendix 2, and sector fixed effects based on two-digit GICS codes. We report T-statistics in parentheses. ***, **, and * indicate statistical significance at the 1%, 5%, and 10% level, respectively, using two-tailed tests. Standard errors are clustered by two-digit GICS code and IPO month.

Interpretation: This table provides evidence that the misclassification of non-SRC EGC issuers as SRCs leads to spurious evidence of an increase in first-day returns.