

The JOBS Act and Executive Compensation at American Emerging Growth Companies

A Study about the Unintended Consequences of the JOBS Act on Information Asymmetry and Executive Pay Packages

Erasmus University Rotterdam
Erasmus School of Economics
Master's Thesis Accounting Auditing & Control
Accounting and Auditing Track

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02-07-2020

ABSTRACT

On April 5, 2012, the Jumpstart Our Business Startups (JOBS) Act was signed into American public law. The Act introduced a new category of issuer, called the Emerging Growth Company (EGC) and, among other things, compensation-related de-burdening provisions. These provisions grant EGCs disclosure relief regarding executive compensation. Prior literature finds mixed results on the effect of a reduction in disclosures on executive pay. Therefore, using a propensity score matching model and difference-in-difference design, this study examines the effect of the JOBS Act on executive compensation at EGCs. First, in corroboration to prior literature, this study shows that for an extended sample period information asymmetry rises. Second, I find a statistically and economically significant shift in executive pay structures from non-cash to cash compensation, which could negatively impact investors. Third, contrary to prior literature, I do not find significant differences in the results between EGCs eligible for the smaller reporting company (SRC) status and EGCs who are not eligible for the SRC status. Overall, next to the intended consequences, the JOBS Act introduces several unintended consequences that negatively impact shareholder value. The SEC should take into account these unintended consequences in its decision to further diminish disclosure requirements to all public companies.

Keywords: JOBS Act, Executive Compensation, Information Asymmetry, Disclosure Relief

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The logo of Erasmus University, featuring the word "Erasmus" in a stylized, cursive script.

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1. Introduction

At the beginning of 2012, as a response to the economic recession of 2008 and the substantial decline in the start-up creation rate since 1977 (Kaufmann Foundation, 2015), the U.S. government proposed a bill that should make it easier for start-ups and small businesses to raise capital. The intuition behind the bill was that an increase in the number of small firms going public more efficiently, would create jobs and enhance sustainable economic growth. After the bill was passed by bipartisan support of the U.S. Congress on March 27, 2012, President Barack Obama signed the Jumpstart Our Business Startups Act¹ (JOBS Act) into law on April 5, 2012 (Cunningham, 2012). The main function of Title 1 of the JOBS Act was to promote entrepreneurship and innovation by making it more efficient for small and developing companies to raise capital (The White House, 2012). American capital markets were reopened for small businesses by creating a new category of issuer, called the ‘emerging growth company’ (EGC). Generally, firms can opt for the EGC status when their annual gross revenues are less than \$1 billion. Through the de-risking and de-burdening provisions introduced under the Act, firms are exempted from several Securities and Exchange Commission (SEC) disclosure requirements that are mandatory for non-EGCs (SEC, 2019). A relief in disclosure requirements for small companies resulted in severe criticism from opponents, who stated that the JOBS Act would decrease investor protection. Guttentag (2012) reports several concerns regarding the harms to investor protection and concludes, among other things, that the JOBS Act could increase information asymmetry, which, in turn, could create managerial rent-seeking behaviour. Put differently, the JOBS Act could increase agency problems, where there are conflicts of interests between the executives and the shareholders of a company. From an agency theory perspective, an increase in information asymmetry due to a decrease in disclosures could encourage executives to extract rents from the company at the expense of shareholders, decreasing shareholder value. More specifically, a decrease in disclosures regarding executive compensation due to the introduction of the compensation-related de-burdening provisions under the JOBS Act could enable executives to extract rents in the form of higher compensation or through a change in the composition of compensation packages.

In academic literature, there is an ongoing debate about the effect of a decrease in disclosures on executive compensation. Prior literature, indicates that *ex-ante*, it is difficult to predict the effect of a reduction in disclosures on executive compensation (Murphy, 2012).

¹ Jumpstart Our Business Startups Act of 2012, Pub.L. 112–106, 126 Stat. 306, enacted April 5, 2012.

From the agency theory perspective described above, compensation rises when the number of disclosures reduces (Barth, Landsman & Taylor, 2017). However, there is no clear-cut evidence that disclosure relief always results in higher executive pay. Other theories, such as the career concern theory indicate that executive compensation could decrease after a firm reduces disclosures. A reduction in disclosures causes shareholders to update their beliefs about an executives' ability downwards, causing executive compensation to decrease (Gipper, 2016). Moreover, Hermalin and Weisbach (2012), show that the agency explanation fails to take into account governance aspects. They argue that an increase in disclosures creates disutility for executives. Therefore, (powerful) executives are compensated for disutility this governance tool creates. Intuitively the opposite also holds, when disclosure requirements reduce, compensation decreases because executives are less compensated for the disutility disclosures create. In conclusion, the overall effect of the JOBS Act on executive compensation is unknown because several theories explain how a reduction in disclosures can either increase or decrease executive compensation.

This thesis examines the effect of the JOBS Act on executive compensation at emerging growth companies to see whether the JOBS Act has unintended consequences with regards to executive pay that should be taken into account by the SEC in its decision to further reduce disclosure requirements for all public companies. To analyse the effect I gather data on IPOs, IPO underpricing and executive compensation from multiple different data sources, such as ThomsonOne and SEC EDGAR, I use univariate and multivariate analyses to test my hypotheses and employ several statistical techniques to deal with endogeneity concerns of the basic multivariate OLS regressions. I develop three hypotheses related to the potential consequences of the JOBS Act. First, I predict and find a significant increase in information asymmetry due to the enactment of the JOBS Act and its specific compensation-related de-burdening provisions. This result is consistent with prior literature that examines the relation between the JOBS Act and information uncertainty (e.g. Barth et al., 2017; Chaplinsky, Hanley & Moon, 2017). Moreover, according to the agency theory, an increase in information asymmetry can result in higher executive compensation, when self-interested executives use information asymmetry for their own benefit. For the second hypothesis, except for salary and stock options granted, I do not find any significant changes in compensation levels. However, I do manage to find a shift in executive compensation packages from non-cash to cash compensation, which can be explained by the managerial power approach, that sees executive compensation as part of the agency problem, and the theory of managerial risk aversion. More specifically, it appears that self-interested risk-averse managers use the increase in information

asymmetry to change the composition of their compensation packages to more stable non-incentive based forms of income. Finally, contrary to prior literature, I fail to find significant differences in the effect of the JOBS Act on executive compensation between the smaller reporting company (SRC) and the non-SRC eligible IPO firms. This can be explained by the insignificant difference in IPO underpricing between the SRC and non-SRC eligible IPO firms, which according to the second hypothesis is a driver for the change in executive pay structures. Overall, *ex-post* the results show that the JOBS Act causes a change in compensation packages that negatively impacts shareholder value, which can be explained by the agency theory.

This thesis contributes to the scientific literature examining the effects of (changes in) disclosure regulations on executive compensation levels and structures (e.g. [Perry & Zenner, 2001](#); [Lo, 2003](#)). First, the results indicate that next to the intended consequences, the JOBS Act does have unintended consequences with regards to executive compensation. In contrast to [Gipper \(2016\)](#), I do find support for the agency explanation when looking at the executive pay structures in comparison to the executive pay levels. Second, I add to prior literature that provides mixed results about the effect of a reduction in disclosures on executive compensation and do find that, although there is no significant effect on the level of total compensation, changes in disclosure regulations can result in shifts within executive compensation packages, causing a change in executive pay structures. Third, the results of this thesis provide evidence for the managerial power approach and the theory about managerial risk aversion. In contrast to the managerial power approach, the optimal contracting approach sees executive compensation as a tool to reduce agency problems. In this thesis, I show that the increase in information asymmetry under the JOBS Act gives executives the incentive to shift their compensation packages from non-cash compensation to cash compensation. Eventually, this shift towards more non-incentive based pay can have negative consequences for investors, decreasing shareholder value ([Bebchuck & Fried, 2003](#)).

Furthermore, this thesis has practical implications for several stakeholders. First, the findings are important to investors, because they explain how the JOBS Act affects investor protection. More specifically, the compensation-related de-burdening provisions introduced under the JOBS Act increase information asymmetry and cause a change in the composition of compensation packages that could eventually hurt shareholder value. Second, the outcome is important to regulators, because it provides insights into the indirect costs of regulatory reforms. Third, the outcome is of interest to the SEC. The American supervisor of the financial markets should take into account the unintended consequences of the JOBS Act on investor protection in its decision to further reduce disclosures to all public companies.

The remainder of this thesis is organized as follows. Section 2 describes the institutional setting and discusses prior literature that examines the effects of the JOBS Act. Section 3 presents the main hypotheses of this thesis based on the findings of prior literature. Section 4 provides a comprehensive description of the data gathering and sample selection process. Moreover, in this section, I present the descriptive statistics and several univariate results. Section 5 explains the research design and discusses the statistical analyses I use to test the hypotheses, including the statistical techniques I use to deal with the endogeneity concerns. Section 6 presents and discusses the results of the multivariate tests. Section 7 concludes and describes the limitations of this research, including recommendations for future research.

2. Literature review

2.1. Institutional setting

The 2008 financial crisis (or Great Recession), frequently seen as one of the worst economic downturns since the Great Depression, had a detrimental impact on several national economies, among which the American economy. Together with a 40 per cent decline in the start-up creation rate since the 1980s, this resulted in a decrease in economic growth and an increase in the unemployment rate. (Kaufmann Foundation, 2015; U.S. Bureau of Labor Statistics, 2020; International Monetary Fund [IMF], 2008). At the beginning of 2012, the U.S. government wanted to increase the employment rate and enhance sustainable economic growth by proposing a bill that should make it easier for start-ups and small companies to raise capital in financial markets. After the bill passed by bipartisan support of the U.S. Congress, President Barack Obama signed the JOBS Act into public law on April 5, 2012 (Cunningham, 2012).

The JOBS Act allows for an “IPO on-ramp”, which has to promote entrepreneurship and innovation by making it more efficient for small and developing companies to raise capital (The White House, 2012). The U.S. government expected that making the IPO process more efficient would impact the national economy through a rise in small companies stimulating job growth (Barth, Landsman & Taylor, 2017). The JOBS Act reopened American capital markets for small companies by adding a new category of issuer, called the ‘emerging growth company’ (EGC), to the 1933 Securities Act². According to Title 1 Section 101, companies that went public through a registered offering after December 8, 2011, qualify for a 5-year EGC status when they meet the following three conditions: (i) total annual gross revenues do not exceed \$1

² Securities Act of 1933, Pub.L. 73-22, 48 Stat. 74, enacted May 27, 1933

billion³; (ii) non-convertible debt issues do not exceed \$1 billion in the last three years; (iii) the company is not registered as a ‘large accelerated filer’⁴.

Under the JOBS Act, EGCs can opt for several de-risking and de-burdening provisions. The de-risking provisions allow EGCs to ‘test the waters’ and to confidentially file a draft IPO registration statement to the SEC. In comparison to the other filers⁵, the ‘testing-the-waters’ provision gives EGCs the ability to communicate internal information exclusively to qualified institutional buyers and institutional accredited investors, to measure their interests before filing the IPO registration statement. This provision is particularly beneficial for companies with a considerable amount of proprietary information, such as biotechnology and pharmaceutical companies (Dambra, Field & Gustafson, 2015).

The de-burdening provisions reduce burdensome disclosure requirements and extensive financial reporting to the level of a ‘smaller reporting company’ (SRC). First, EGCs can opt for a reduction in requirements regarding the submission of audited financial statements and selected financial data. More specifically, when registering for an IPO an EGC is not required to submit more than two years of audited financial statements and selected financial data in the registration statement. In contrast, other public reporting companies (e.g. large accelerated filers) have to submit three years of audited financial statements and five years of selected financial data. According to Goodman, Ohlson and Fontenot (2018), a considerable amount of EGCs opted not to benefit from this provision, to provide investors with more information about the firms’ long-term financial performance.

Second, the JOBS Act considerably reduces the EGCs’ requirements regarding executive compensation disclosures to the SRC level. The compensation-related de-burdening provisions exempt EGCs from publishing a Compensation Discussion and Analysis (CD&A) section in their registration statement. Before the enactment of the JOBS Act, EGCs had to extensively report on the material elements and objectives of the executive compensation program within the CD&A section. Moreover, EGCs do not have to disclose compensation information for more than three named executive officers in the summary compensation table (instead of five for other filers) Furthermore, EGCs are not required to adhere to the disclosure requirements regarding executive compensation introduced by the 2010 Dodd-Frank Wall Street Reform and Consumer Protection Act (Dodd-Frank Act).

³ On March 31, 2017 the SEC adjusted the amount of this condition for inflation to \$1.07 billion (SEC, 2017 - <https://www.sec.gov/rules/final/2017/33-10332.pdf>)

⁴ The definition of a ‘large accelerated filer’ can be found in the [Exchange Act Section 240 Rule 12b-2](#)

⁵ On September 26, 2019, the SEC introduced Rule 163B which extended the use of “testing-the-waters” communications to all companies, irrespective of their reporting status.

Third, EGCs can delay submitting an internal control attestation introduced by the Sarbanes-Oxley Act 2002 (SOX) Section 404(b)⁶. SOX Section 404(b) requires firms to report on the adequacy of their internal control structure to decrease the risk of executives manipulating results. The Internal Control Report states that management is responsible for the application of effective internal controls.

Fourth, EGCs are allowed to defer complying with changes in accounting standards implemented by the Financial Accounting Standards Board (FASB), until they affect private companies. Also, EGCs can choose not to comply with (new) rules adopted by the Public Company Accounting Standards Board (PCAOB) (Dambra et al., 2015).

The JOBS Act introduced several provisions that de-risk and de-burden the IPO process, which makes it more efficient to go public for small and developing companies. Proponents proclaimed this would spur economic growth and stimulate the job market. However, there are also negative consequences. Opponents, such as SEC chairwoman Mary Shapiro, advocate a decrease in investor protection. “Too often, investors are the target of fraudulent schemes disguised as investment opportunities”, Shapiro wrote in her letter to the U.S. Senate that voiced criticism of the Act (158 Cong. Rec. 3484, 2012, p.3484). Guttentag (2012) reports four specific harms that form the basis for the concerns regarding investor protection. First, the potential increase in fraud at EGCs. The JOBS Act does not consider the attributes related to the levels of fraud in determining which companies are eligible for disclosure relief. Wang, Winton and Yu (2010) conclude that the levels of fraud are higher for companies in industries that experience a higher level of growth. Due to the higher level of fraud in growing industries, Guttentag (2012) implies that EGCs are probably not the best candidates to receive disclosure relief. Second, the JOBS Act increases the problem of information asymmetry between investors and smaller firms. Chari, Jagannathan and Ofer (1988) explain that the problem of information asymmetry is larger for smaller firms since those firms have fewer analysts analysing their financial numbers. According to Guttentag (2012), concerning investor protection, it does not make sense to further increase the information asymmetry by granting disclosure relief to these companies. Third, the EGC-status could increase ‘tunnelling’ of investor funds by agents that control the firm. Tunnelling refers to the concept of extracting resources by the executives at the expense of investors. A significant way to extract resources from the company is by assigning a higher amount of executive compensation. A reduction in the compensation information provided to investors could result in more private rent extraction

⁶ Sarbanes–Oxley Act of 2002, Pub.L. 107–204, 116 Stat. 745, enacted July 30, 2002

by executives. Fourth, according to [Guttentag \(2012\)](#), the JOBS Act offers investors less protection against themselves. The increase in IPOs that provide less information to investors, gives more incompetent investors the ability to invest in firms that ultimately vanish into thin air. Put differently, the newer and fast-growing firms that are granted disclosure relief are most likely to attract more unsophisticated investors, similar to the dotcom bubble that ultimately burst in 2000 (see e.g. [Davidoff, 2012](#)). However, these recently public firms are also more likely to collapse than bigger firms. Overall, next to the positive consequences, the JOBS Act also has negative consequences. Providing less information due to a reduction in disclosure requirements comes at a cost by hurting investor protection. In more detail, this thesis tries to examine the effect of the JOBS Act on an account that could increase investor costs. More specifically, this thesis aims to find evidence about the effect of the JOBS Act on executive compensation, which is highly related to the tunnelling concept [Guttentag \(2012\)](#) discusses. The next section will further analyse prior literature about the overall economic effects of the JOBS Act, the effects of specific provisions introduced and the impact the JOBS Act could have on executive compensation.

2.2. JOBS Act consequences

After the JOBS Act was introduced, researchers extensively examined the overall economic effects (e.g. [Dambra, Field & Gustafson, 2015](#); [Chaplinsky, Hanley & Moon, 2017](#); [Barth, Landsman & Taylor, 2017](#)). [Dambra et al. \(2015\)](#) examine the effect on IPO activity, to find out whether the Act did achieve the initial objectives of the U.S. Congress. Their study provides preliminary evidence for a 50 per cent increase in IPO activity of EGC-eligible firms in the two years after the enactment, compared to the two years previous to the enactment. Furthermore, they find that the majority of new issuers in the post-JOBS Act period has relatively low revenues and a substantially high amount of research and development (R&D) expenditures. These findings are consistent with the predictions and provide preliminary evidence on the effectiveness of the JOBS Act for smaller companies with higher proprietary disclosure costs, such as companies in the biotech/pharma industry. The increase in IPO activity from smaller companies can be seen as an intended consequence and indicates that the JOBS Act is achieving its stated goal. The higher amount of low-revenue issuers in the post-JOBS Act period could be due to the adoption of de-burdening provisions, that attenuate the extensive disclosure requirements for smaller companies in the IPO process. Therefore, decreasing the costs and making it more beneficial to go public. However, the results from multivariate regressions do not provide evidence for this claim and state that the increase in IPO activity is not due to the

adoption of de-burdening provisions, but rather due to the adoption of de-risking provisions. The results indicate that IPO firms with proprietary information gain higher benefits from de-risking provisions than from de-burdening provisions. Because the majority of IPOs in the post-JOBS Act period has high proprietary disclosure costs, [Dambra et al. \(2015\)](#) state that de-risking provisions are more popular than de-burdening provisions.

More specifically, the study of [Barth et al. \(2017\)](#) shows the percentage of EGCs that apply a certain provision. Based on private data from EY, 73 per cent of the EGC IPOs opt to confidentially file draft registration statements with the SEC. All EGCs delay the internal control attestation required by SOX Section 404(b). The two highly correlated and most important compensation-related de-burdening provisions, i.e. (1) reduction in executive compensation disclosures and (2) omission of the CD&A section, are used by 84 and 87 per cent of the EGCs respectively. Furthermore, provisions regarding a delay in compliance with accounting standards or a decrease in other disclosures are less popular. These descriptive results corroborate the conclusion of [Dambra et al. \(2015\)](#) about the popularity of de-risking provisions. Besides, [Barth et al. \(2017\)](#) show that certain specific de-burdening provisions, such as the delay in SOX Section 404(b) and the compensation-related disclosure exemptions, are also used frequently. Overall, these studies show that EGC IPOs are eager to use both the de-risking as well as de-burdening provisions introduced by the JOBS Act.

For a company to file for an IPO the benefits of going public must outweigh the costs. The initial goal of the JOBS Act was to increase the accessibility of capital markets for small and developing companies by reducing the costs of going public through alleviating firms from burdensome disclosure and reporting requirements. The study of [Dambra et al. \(2015\)](#) provides preliminary evidence about the success rate of the JOBS Act. However, the impact on the overall costs of going public is underexposed, because it mainly emphasizes the beneficial-side of the JOBS Act provisions.

Complementary to the study of [Dambra et al. \(2015\)](#), [Chaplinsky et al. \(2017\)](#) examine the effect of the decrease in disclosure requirements on the direct and indirect costs of going public. By examining the registration statements of companies that filed for IPO in the post-JOBS Act period, no evidence is found for a decrease in direct costs of issuance. With regards to the indirect costs of issuance, different results are found for SRC and non-SRC EGCs. For the SRC eligible companies, the indirect costs do not significantly differ, because these companies could already benefit from reduced disclosure requirements previous to the JOBS Act. In contrast, underpricing at non-SRC EGCs increases with 11 percentage points, which, in turn, increases the costs of capital. Furthermore, the study finds that more EGCs utilize

disclosure exemptions when the Act matures. Therefore, over time the information asymmetry grows and, in turn, the costs of capital grow. Overall, [Chaplinsky et al. \(2017\)](#) show that the IPO costs for EGCs that are newly eligible to disclosure exemptions increases, which is mainly due to the increase in information asymmetry between investors and non-SRC EGCs. Consequently, I predict that the effect on executive compensation is more pronounced for the non-SRC EGCs as the act matures because more EGCs apply JOBS Act provisions.

[Barth et al. \(2017\)](#) also examine the effect on underpricing as an indicator of information uncertainty. Holding everything else constant, information uncertainty rises when the quantity of information declines. The decrease in mandatory disclosures can result in a reduction in information content. However, this is not the case when mandatory disclosures are substituted by voluntary disclosures ([Lang & Lundholm, 2000](#)). By taking into account the substitutability of mandatory and voluntary disclosures, a reduction in disclosure requirements leads to larger underpricing and greater return volatility in the period after the EGC's IPO, indicating an increase in information uncertainty. The increase in information uncertainty due to the JOBS Act is negatively perceived by investors, who react unfavourably to changes in regulations that reduce market transparency ([Fogel, El-Khatib, Feng & Torres-Spelliscy, 2015](#)). Executives have to make a trade-off between the loss in IPO proceeds, due to a reduction in market transparency, and the gain in benefits from reduced disclosures. The results of [Barth et al. \(2017\)](#) are consistent with two explanations for why executives voluntarily opt to reduce disclosures. First, the results are consistent with the proprietary information explanation given by [Dambra et al. \(2015\)](#), which explains that IPOs disclose less to reduce proprietary disclosure costs. Second, the results are consistent with the agency explanation. A reduction in compensation-related disclosures could incentivize executives to allocate more compensation to themselves at the expense of the shareholders. This view on executive compensation is extensively discussed by [Bebchuk and Fried \(2003; 2009\)](#), who evaluate two alternative approaches introduced by prior literature that explain the relation between executive compensation and the agency problem. First, the 'optimal contracting approach' explains that executive compensation is used as an antidote for the agency problem because it provides executives with incentives that should align managements' interests with shareholders' interests (e.g. [Murphy, 1999](#); [Inderst & Müller, 2003](#)). Second, the 'managerial power approach' sees executive compensation as part of the agency problem itself. This approach explains that managers try to use their power to extract rents from the company at the expense of the shareholders (i.e. tunnelling) (e.g. [Bebchuck, Fried & Walker, 2002](#); [Weisbach, 2007](#); [Van Essen, Otten & Carburry, 2015](#)). Powerful executives can "camouflage" rent extraction from

outsiders, to reduce outrage costs (i.e. personal costs through reputational harm by outsiders who discover rent extraction). Hereby, executives can gain from suboptimal contracting, where they receive an amount of compensation that is not in line with firm performance. One governance mechanism that reduces the information asymmetry created by the techniques executives use to camouflage compensation-related information are disclosures (Bebchuk et al. 2002). Therefore, the last two decades, the SEC adopted several new regulations that tightened compensation-related disclosures, such as the 2006 mandated compensation disclosure regulations, who introduced the CD&A section among other things, and the pay-for-performance disclosure extensions of the 2010 Dodd-Frank Act.

Empirically, prior literature finds contradicting results for the effect of an increase in mandatory disclosures on executive compensation. Studies based on the abovementioned agency theory predict and find that executive compensation reduces when mandatory disclosure requirements increase, due to the decrease in information asymmetry. For example, Grinstein, Weinbaum and Yehuda (2017) examine the effect of the 2006 SEC disclosure amendments on the number of perquisites⁷ and find, contrary to the literature that failed to distinguish the different types of disclosers (e.g. Espahbodi, Liu & Westbrook, 2016), that the effect is dependent on the type of discloser. The effect on first-time disclosers is a decrease in perquisite awards, which is attributable to an increase in disclosure costs and enhanced monitoring. The opposite effect is found for the existing disclosers, who increase perquisite awards. This increase could be due to an increase in comparability with peer companies in the industry. It is worth mentioning that the reduction in perquisite awards is partially substituted by other types of compensation, which smooths the decrease in total executive compensation. Besides, Robinson, Xue and Yu (2011) find that excess compensation is significantly higher for companies that fail to comply with the additional 2006 mandatory compensation disclosures. Overall, these studies indicate the presence of agency problems in executive compensation structures. An increase in mandatory disclosure for new adopters, which decreases information asymmetry between executives and shareholders, reduces the amount of compensation awarded to executives, which suggests that compensation structures are perceived to be suboptimal by shareholders. Based on the agency theory, I expect the executive compensation to rise, when the disclosure requirements for EGCs decrease due to the JOBS Act. This expectation is in line

⁷ Perquisites are a form of non-wage executive compensation. In 2006 the SEC adopted amendments that tightened the disclosure requirements regarding several types of executive and director compensation, among which perquisites (Release No. 33-8732A). For more information on these disclosure requirements see: <https://www.sec.gov/rules/final/2006/33-8732a.pdf>

with [Barth et al. \(2017\)](#) who state that managers can benefit from the reduction in disclosure requirements when they have private information about their compensation. In this situation, a decline in disclosure requirements results in higher information asymmetry, which can tempt executives to personally benefit at the expense of the shareholders, for example, by allocating more executive compensation.

Contradictory, [Hermalin and Weisbach \(2012\)](#) show that the agency explanation is incomplete and fails to take into account governance aspects. Similar to [Grinstein et al. \(2017\)](#), [Hermalin and Weisbach \(2012\)](#) state that an increase in disclosures can enhance shareholder monitoring. However, the benefits of enhanced monitoring do not only flow to the shareholders. When executives have bargaining power, part of the benefits will be captured by them through higher compensation. Even without any bargaining power, greater disclosure can lead to higher executive compensation, because executives need to be compensated for the disutility induced by greater governance. Therefore, executive compensation will rise due to an increase in disclosures. Another study of [Gipper \(2016\)](#) also shows that a greater level of mandatory compensation disclosures is related to a higher amount of executive compensation. [Gipper \(2016\)](#) examines the introduction of the CD&A section in 2006 and the partial rollback of this section by the JOBS Act in 2012. This study finds preliminary evidence about the effect of the JOBS Act on executive compensation. One of the downsides, however, is that within the analysis of the partial rollback it only considers the year 2012. Prior literature about the JOBS Act, such as [Chaplinsky et al. \(2017\)](#), states that the disclosure exemptions are more frequently used when the Act matures. Therefore, the real effect of the partial rollback on pay levels becomes more pronounced when additional years are taken into account. Additionally, [Hermalin and Weisbach \(2012\)](#) state that the effect of a change in disclosures on executive compensation comes with some lag. Contrary to prior literature based on the agency theory (e.g. [Bebchuk et al., 2002](#); [Bebchuk & Fried, 2003](#)), [Gipper \(2016\)](#) provides evidence that greater mandatory disclosures do not reduce managerial rent extraction and can even result in higher executive pay. The main explanation for these results is provided by the career concern theory. Career concerns occur when firms use the current performance as a ground to update beliefs about an executives' ability. When disclosures show the executive is able to properly do her job, this could result in higher executive pay, because the future compensation structure is based on these updated beliefs ([Gibbons & Murphy, 1992](#)). Furthermore, when hiring a new executive, a firm needs to gather information about the executive, which is a costly process. Easily available disclosures could better reflect the ability of the executive and reduce hiring costs. As a result, hiring firms can create job offers that are more suitable to the prospective

executive. Therefore, firms increase compensation to prevent executives from leaving the firm or getting “snatched” by another company. In addition to the career concern theory, [Gipper \(2016\)](#) provides three other theories that could explain the increase in executive pay. First, the bonding theory explains that improvements in manager-shareholder bonding can result in higher executive pay when entrusted managers receive more decision-making power from the shareholders and get compensated for the additional efforts. Second, the illusory superiority theory (i.e. ‘Lake Wobegon Effect’) states that firms tend to overestimate performance. Because managers should be compensated for performance, overestimation of firm’s performance results in higher executive compensation. Higher levels of compensation that match with firm performance let shareholders conclude that the manager-firm match is optimal and creates additional shareholder wealth. Therefore, firms are inclined to distort compensation upwards to signal a good manager-firm match. Third, the learning theory explains that managers can use the mandatory disclosures in their benefit to select companies with higher executive compensation as their industry peers. Due to the use of benchmark companies with above-average executive pay, executives can justify an increase in compensation.

Overall, prior literature indicates that the initial goal of the JOBS Act is achieved because, due to the benefits the provisions provide, smaller companies more easily file for an IPO. However, the provisions come at the cost of higher information asymmetry, which could impact the executive pay levels and structures due to managerial rent extraction and distorted manager-shareholder relationships.

3. Hypothesis development

According to the previous section, the JOBS Act can have a two-sided effect on executive compensation. On the one hand, executive compensation can increase, because of an increase in agency problems. [Jensen and Meckling \(1976\)](#) first related the agency theory to companies that have a ‘separation of ownership and control’. Since the relationship between shareholders and executives is very similar to the agency relationship, issues within public companies that have a ‘separation of ownership and control’ are strongly related to agency problems. According to [Jensen and Meckling \(1976, p.308\)](#): “it is generally impossible for the principal or the agent at zero cost to ensure that the agent will make optimal decisions from the principal’s viewpoint.”. Therefore, for the agent (i.e. executives) to make decisions that are in the best interest of the principal (i.e. shareholders), the company has to incur the following three types of agency costs: (1) monitoring costs, which are costs made by the principal for supervising of

the agent's actions; (2) bonding costs, which are costs made by the agent to prove that his actions are in accordance with the principal's interests; and (3) the residual loss, which are costs due to the imperfection of the principal's supervision and incompleteness of the agent's information provision. According to [Mahoney \(1995\)](#) mandatory disclosure, especially regarding executive compensation, serves as a governance tool that reduces agency costs due to a decrease in information asymmetry. Furthermore, [Leuz and Verrechia \(2000\)](#) also show that more disclosures result in a lower level of information asymmetry between managers and shareholders. Enhanced monitoring by the shareholders, due to a decline in information asymmetry, will reduce agency problems. Intuitively, the opposite also holds, which means that when a decline in mandatory disclosures is not substituted by voluntary disclosures, information asymmetry grows. According to [Guttentag \(2012\)](#), the overall effect of the JOBS Act on information asymmetry is complex. On the one hand, the JOBS Act introduces several provisions that allow EGCs to disclose more information privately to potential investors. These provisions lead to a decrease in information asymmetry. On the other hand, the JOBS Act introduces several provisions that grant disclosure relief, which leads to an increase in information asymmetry. [Barth et al. \(2017\)](#) find significant increases in information uncertainty for several provisions under the JOBS Act, among which, the reductions in executive compensation disclosures play a dominant role. Furthermore, they find that the application of de-burdening provisions, which increase information asymmetry, are motivated by agency problems and proprietary costs. In addition to this study, [Agarwal, Gupta and Isrealson \(2017\)](#) also find some preliminary evidence on an increase in information asymmetry. Based on these studies, the following alternative hypothesis is formulated:

H1: The compensation-related de-burdening provisions introduced under the JOBS increase the degree of information asymmetry.

From an agency theory perspective, an increase in information asymmetry can result in more managerial rent-seeking behaviour, especially by powerful executives. Executives are tempted to personally benefit from the increase in information asymmetry by taking self-interested, myopic actions ([Bebchuck & Fried, 2003](#); [Barth et al., 2017](#)). Additionally, the alleviation of burdensome disclosure requirements can result in higher profits due to a reduction in reporting costs ([Chaplinsky et al., 2017](#)). When executives are compensated based on firm performance, the increase in profits can result in executive compensation growth.

On the other hand, executive compensation can decrease. A reduction in disclosure requirements causes direct agency costs to rise, which hurts firm performance ([Bebchuck &](#)

Fried, 2003). When compensation schemes are based on firm performance, a decrease in performance can decrease executive compensation. Furthermore, Hermalin and Weisbach (2012) show how compensation can increase through enhanced monitoring by shareholders due to an increase in disclosures. The benefits of enhanced monitoring will be captured by powerful managers through higher compensation. Even without bargaining power, managers will still receive more compensation because they are compensated for the disutility governance creates. Intuitively, the opposite also holds for a situation of reduced disclosures (i.e. the situation after the enactment of the JOBS Act). Executive compensation will decrease, due to a lower amount of governance disutility. Additionally, Gipper (2016) shows that an increase in disclosure requirements will increase executive compensation, due to career concerns. Disclosures should better reflect an executives ability, causing shareholders to update their beliefs and provide managers with higher levels of executive pay. Therefore, a decline in disclosures under the JOBS Act will result in lower levels of executive pay, due to the inability to update the beliefs. Given these explanations that show how executive compensation can either increase or decrease due to the JOBS Act, I formulate the following hypothesis:

H2: The JOBS Act does not have an effect on executive compensation at U.S. EGCs.

This hypothesis is stated in the null form because *a priori* it is hard to say which effect predominates or whether the effects exclude one another. Moreover, when the first hypothesis holds, an increase in information asymmetry can either be a support for the agency theory or the career concern theory.

According to Chaplinsky et al. (2017), the Act does not affect all issuers equally, because prior to the enactment of the JOBS Act companies that qualified for SRC-status could already opt for scaled disclosures. Due to the scaled disclosures for SRCs before the JOBS Act, Chaplinsky et al. (2017) state that the effect is most noticeable in firms that are newly eligible to disclosure relief (i.e. non-SRC eligible IPO firms). This corresponds to the study of Grinstein et al. (2017), who find that the effect of the 2006 disclosure amendments on perk disclosure is different for the first-time disclosers in comparison to the existing disclosers. Based on the findings of the previous studies, I formulate the following hypothesis:

H3: The potential effect of the JOBS Act on executive compensation is more pronounced at U.S. non-SRC eligible EGCs in comparison to SRC eligible EGCs.

This hypothesis is stated in the alternative form because prior literature finds that the effects of the JOBS Act are stronger for non-SRC eligible EGCs in comparison to SRC eligible EGCs.

4. Sample selection and descriptive statistics

4.1. Sample selection process

I acquire the data from several different sources, such as Refinitiv Thomson ONE, Datastream, Institutional Brokers Estimates System (I/B/E/S), Standard & Poor's (S&P) Compustat (North America), SEC EDGAR and Thomson Reuters. From Thomson ONE, I obtain data about firms with an IPO in the two years before and four years after the enactment of the JOBS Act. Also, from Thomson ONE I gather data on IPO underpricing. Data on executive compensation structures are gathered from the company filings in SEC EDGAR. From the other databases, I gather data about firm and CEO characteristics.

4.1.1. The selection of IPO-firms

For the selection of IPO firms in the pre- and post-JOBS Act period, I use the studies of [Dambra et al. \(2015\)](#) and [Chaplinsky et al. \(2017\)](#), who provide a detailed description of their sample selection process. In contrast to the study of [Dambra et al. \(2015\)](#), I only use the domestic sample, because my hypotheses examine the effect on U.S. EGCs, similar to the study [Chaplinsky et al. \(2017\)](#). Furthermore, I expand the post-JOBS Act period, because previous studies show that the effect of JOBS Act provisions becomes more pronounced when the Act matures. Similar to post-crisis sample in the study of [Khurana and Zhao \(2019\)](#), I start my sample period two years before the JOBS Act, so my results will not be distorted by the financial crisis or the introduction of the Dodd-Frank Act. For the selection of IPO firms, prior studies use the Thomson Reuters Securities Data Companies (SDC) Platinum database. Thomson ONE is the online version of Thomson Reuters SDC Platinum which contains the same amount of data on IPOs and is easily accessible from various locations. In line with previous studies, unit issues; financial firms and real estate investment trust's (REIT's) (SIC codes 6000 until 6799); companies that have an amount of less than \$5 million in IPO proceeds; best effort, right and foreign issues; limited partnerships and companies that do not have an original IPO, are excluded to create a more homogenous sample. The sample selection process, including the number of observations for the pre- and post-JOBS Act period, can be found in Table 1A.

4.1.2. Information asymmetry and compensation data

For the first hypothesis, I follow [Barth et al. \(2017\)](#) who examine the effect of the JOBS Act on information uncertainty and use IPO underpricing at the end of the first trading day as a proxy for information asymmetry. The information regarding the share price is asymmetrically

distributed between the potential investors and the IPO firm. Potential investors bear a higher risk and only want to acquire shares at a discounted share price, because they have less information about a firm's performance and its future profitability. To encourage potential investors to buy shares, underwriters set an offer price that is lower than the intrinsic value of the share price (i.e. underwriters underprice the issue). Put differently, underpricing reflects a risk premium to compensate investors bearing information uncertainty. Therefore, IPO underpricing serves as a good proxy for information asymmetry (McAleer & Wong, 2019). Empirical evidence on the association between information uncertainty and IPO underpricing is found by Rock (1986), who concludes that an increase in information asymmetry results in a higher risk premium required by investors, which increases IPO underpricing. In comparison to the study of Barth et al. (2017), I do not use CRSP, but Thomson ONE as the main database to collect data about IPO underpricing due to two reasons. First, in Thomson ONE I can select IPO underpricing at the end of the first trading day, whereas I cannot do this with CRSP, which only provides the dates available of all the different trading days. For several companies, the end of the first trading day given by CRSP is not equal to the IPO issue date or even substantially deviates from the IPO issue date provided by Thomson ONE. Second, Thomson ONE contains more data than CRSP on IPO underpricing at the end of the first trading for the sample of IPO firms selected in section 4.1.1., which increases the sample size of the first hypothesis.

For the second hypothesis, I gather data about the compensation structure from the summary compensation table included in the IPO prospectus, which "is the cornerstone of the SEC's required disclosure on executive compensation" (SEC, 2014). The summary compensation table distinguishes the following two categories of compensation: (1) cash compensation, which consists of the salary and bonus, and (2) non-cash compensation, which consists of the stock awards, option awards, nonequity incentive plan compensation and all other compensation. Together with the change in pension value and the non-qualified deferred compensation earnings (which are often incorporated under other compensation), these two categories form the total compensation provided to executives. When compensation data is not given in the prospectus or when the prospectus is referring to other forms filed to the SEC, such as the annual report (Form 10-K) or the proxy statement pursuant to Section 14(a) of the Securities Exchange Act of 1934⁸ (DEF 14a), data is gathered from the other statements. I only include CEO compensation, because EGCs are still obliged to provide information about the CEO compensation in the summary compensation table, while this is not the case for the other

⁸ Securities Exchange Act of 1934, Pub.L. 73-291, 48 Stat. 881, enacted June 6, 1934

named executive officers (e.g. CFO). Therefore, taking the average compensation of all named executives into account could give a distorted view of executive compensation structures.

4.1.3. Firm-specific accounting data

After obtaining the IPO data from Thomson ONE, I gather financial data from Compustat. This database is accessible through the Wharton Research Data Services (WRDS) platform, which is a renowned data platform for business research. The WRDS setting allows me to gather accounting data of the most recently completed fiscal year prior to the IPO. This accounting data includes, among others, the total annual gross revenues. Through the revenue data, (potential) EGCs can be determined. Non-EGC eligible companies, with annual total gross revenues above \$1 billion in the fiscal year before their IPO are removed from the dataset because these companies could not apply for the JOBS Act provisions. Furthermore, additional accounting data, such as the total assets, total liabilities and stockholders' equity, are gathered. I use the accounting data for the firm-specific control variables in the multivariate analyses. Missing values in the Compustat data are partly filled in with data from the Worldscope Fundamentals database, which is accessible through Datastream. For the accounting variables that still contain missing values, I manually gather data from the SEC filings in SEC EDGAR. All companies that file for an IPO in the U.S. are required to, either confidentially or publicly, submit an IPO prospectus (Form 424B4) and a registration statement (Form S-1) with the SEC. When the registration statement becomes effective, a company has to comply with the disclosure requirements of the Exchange Act. Under this act, companies need to submit periodic reports, such as an annual report of a company's financial performance (Form 10-K). When a company qualifies for an SRC- or EGC-status, it is entitled to provide scaled disclosures. SEC EDGAR contains all of the statements submitted to the SEC. Financial variables that are not included in the income statement and the balance sheet statement of the IPO prospectus, registration statement or annual report are set by zero. For instance, when a company does not disclose research and development expenditures in its income statement the value is set by zero.

4.1.4. Data of other control variables

Similar to obtaining the compensation and financial data, I use the filings in SEC EDGAR to obtain information about the EGC-status, the applied disclosure provisions, the annual CEO compensation structure, CEO characteristics and corporate governance characteristics. Whether or not a company in the post-JOBS Act period is eligible for an EGC-status is determined based

on the cover page of the registration statement. When a company is EGC eligible the cover page states that they are an ‘emerging growth company’ as defined in Section 2(a)(19) of the Securities Act of 1933⁹, and are allowed to adhere to more limited disclosure requirements. Additionally, companies can choose to provide additional information about the different provisions they apply in a JOBS Act summary section. IPOs that do not opt for the EGC-status in the post-JOBS Act period are removed from the sample. In total, within the IPO sample retrieved from Thomson ONE, two companies that are EGC-eligible choose not to opt for this status. Hence, these two companies are removed.

Companies that qualify for the EGC-status can opt to apply several different provisions under the Act. The two highly correlated provisions with regards to executive compensation are the omission of the CD&A section and the reduced number of named executive officers in the summary compensation table. Similar to the information obtained about the EGC-status, I obtain data about whether a company discloses a CD&A section in the IPO prospectus. Furthermore, I obtain data about the number of named executive officers provided in the summary compensation table. A decrease in the number of named executive officers makes it harder to compare intracompany compensation between top executives.

I obtain data about CEO characteristics from the management section in the IPO prospectus, which lists all executive officers and members of the board of directors and provides a short biography of the management staff. I collect the CEO’s age, tenure and educational level. Prior literature indicates that these CEO characteristics have an (indirect) effect on both the non-incentive based as well as the incentive-based compensation (e.g. [Murphy, 1999](#); [Hou, Priem & Goranova, 2017](#)). Next to the personal characteristics, I find out whether the CEO is the chairman of the board of directors. Whether a CEO also serves as the chairman of the board of directors has an impact on executive compensation, since it affects the quality of governance structures and increases a CEO’s power. [Lorsch and Zelleke \(2005\)](#) state that the greatest and most obvious source of increased power is the influence a chairman has on the other board members through his authority. This increase in authority can result in higher agency costs because it is harder to align personal interests with shareholders’ interest when the CEO has higher power. In corroboration, [Brickley Coles and Jarell \(1997\)](#) find little evidence on increased managerial entrenchment under unitary leadership. In contrast, they also provide preliminary evidence on the costs and benefits of dual leadership and ultimately advocate, with

⁹ Securities Act of 1933, Pub.L. 73-22, 48 Stat. 74, enacted May 27, 1933. The full text of the JOBS Act (amendments) (H. R. 3606) to section 2(a)(19) of the original Securities Act of 1933, can be found on the SEC website: <https://www.govinfo.gov/content/pkg/BILLS-112hr3606enr/pdf/BILLS-112hr3606enr.pdf>

caution, unitary leadership. Based on prior literature that describes the increase in managerial power and the impact this has on executive compensation through governance structures, I suppose it is relevant to include the chairman data. Finally, I collect the number of directors on the board of directors of the firm, which are employed in the multivariate analyses as a corporate governance characteristic. Next to the number of directors on the board, I obtain corporate governance characteristics data from I/B/E/S and Thomson Reuters Institutional (13f) Holdings. Similar to the Compustat data, this data is accessible through the WRDS platform. From I/B/E/S, I collect data on the number of analysts following. From Thomson Reuters, I collect the total amount of institutional ownership as a percentage of the shares outstanding. Prior literature has shown that these mechanisms are related to a firm's corporate governance and, therefore, an increase in these mechanisms will reduce agency costs. For example, [Knyazeva \(2007\)](#) states that enhanced monitoring by analysts creates higher incentives for executives to work in the interest of shareholders, thereby reducing the agency problems, and [Chung and Zhang \(2011\)](#) find a positive relation between the institutional ownership stake and quality of a firm's governance structure. Again, missing values for these variables are set by zero.

After collecting the relevant data, I merge the different datasets. To properly merge datasets, I remove duplicates. Furthermore, I correct any company identifier code (CIK) in my dataset when it does not match with a firm in the SEC EDGAR database. To correct for outliers in the continuous variables, I winsorized the top and bottom 1 per cent. The final number of observations in the pre- and post-JOBS Act period can be found in Table 1A.

4.2. Descriptive statistics

Table 1 presents the descriptive statistics for the full sample of 488 firms. Panel A of Table 1 presents the number of SRC and non-SRC eligible EGCs in the period before and after the enactment of the JOBS Act. The righthand column indicates that, for the entire sample period, the total number of SRC and non-SRC eligible EGCs are almost the same. For the pre-JOBS Act period, the number of non-SRC eligible EGCs is bigger than the number of SRC eligible EGCs. The opposite holds for the post-JOBS Act period, where the amount of non-SRC eligible EGCs is smaller than the amount of SRC eligible EGCs. According to item 10(f)(1) of the Regulation S-K, a company qualifies for the SRC-status when it adheres to one of the following two tests. First, the 'revenue test' implies that, for companies without any public float to be SRC eligible, total annual revenues must be less than \$50 million. Second, the 'public float test'

implies that companies should have less than \$75 million in public float¹⁰. Similar to the selection of EGC IPOs in the sample selection process of Table 1A, I use the ‘revenue test’ to indicate whether a company is SRC eligible. The ‘revenue test’ is a suitable test to select SRC eligible EGCs, because, before their initial IPO, EGCs do not have any public float. The increase in SRC eligible EGCs in the post-JOBS Act period indicates that the number of smaller companies (with annual revenues below \$50 million) increases, which corresponds with previous studies (e.g. Dambra et al., 2015; Barth et al., 2017). In corroboration, the percentage increase in SRC eligible EGCs is bigger than the percentage increase in non-SRC eligible EGCs. Again, this indicates an increase in smaller companies that file for an IPO in the post-JOBS Act period, which could mean that the JOBS Act eases the process of going public for smaller companies. This should be said with caution, because other factors, such as economic growth or laws and regulations, could also increase the number of smaller firm IPOs in this sample period. Examining the other factors is beyond the scope of this research and, therefore, I will not go into detail and leave this question open for future research.

Panel B of Table 1 presents the (significant) differences in the means and medians between the pre- and post-JOBS Act period for the full sample. Table 1 reveals that the amount of total assets, a proxy for firm-size, significantly decreases, which indicates that the number of smaller firms in the post-JOBS Act period is larger. This corroborates with the findings in Table 1 Panel A. For the SRC sample (Table 1B Panel B) and the full sample the relative decrease in total assets is 41.1 per cent and 39.9 per cent, respectively. The relative decrease in total assets is smaller for the full sample than the SRC sample because it is offset by the (insignificant) increase in total assets in the non-SRC sample (Table 1B Panel C). Table 2B presents the descriptive statistics for the SRC and non-SRC sample and indicates that firm-size (measured by total assets) is significantly smaller in the SRC sample in comparison to the non-SRC sample, which is intuitive since these firms are selected based on the revenue test and revenue is often highly correlated with total assets. Noteworthy is the insignificant difference in the means and medians of IPO underpricing, which should be taken into account for the analysis of the first and third hypothesis. However, due to the significant differences between the SRC and the non-SRC sample for most of the variables, I still expect the effect of the JOBS Act to be different for the two samples. To control for these significant differences, I add several firm-specific variables (e.g. *LNAT*, *CASH*, *PPE*) to the multivariate analyses. Untabulated

¹⁰ On June 28, 2018 the SEC amended the definition of a ‘smaller reporting company’. The upper limits of the SRC-status increased. Further information about the amendments to item 10(f)(1) of Regulation S-K can be found on: <https://www.sec.gov/rules/final/2018/33-10513.pdf>

results indicate that the absolute values of the continuous variables are skewed. I control for outliers in these continuous variables by using the natural logarithms and relative, instead of the absolute, values. For instance, instead of using the total assets, I use the natural logarithm of total assets (*LNASSETS*) and I divide the amount of research and development expenses by the total revenues (*RDX*).

Also, Panel B of Table 1 reveals that the number of firms who provide a CD&A section in their IPO prospectus significantly decreases, which indicates that EGCs do opt to apply the de-burdening provision that allows for the omission of the CD&A section. The same holds for the number of named executive officers (*NEOS*) included in the summary compensation table. The mean (median) number of *NEOS* provided in the IPO prospectus significantly decreases from 5.034 (5) in the pre-JOBS Act period to 3.273 (3) in the post-JOBS Act period. When this decrease in mandatory disclosures is not substituted by voluntary disclosures, this could result in higher information asymmetry. Therefore, IPO underpricing is significantly higher in the post-JOBS Act period. A higher amount of information asymmetry could result in more managerial rent-seeking behaviour, where a powerful manager extracts rents (in the form of higher compensation) from the shareholders. Noteworthy is the (insignificant) increase in total compensation, which is largely driven by a significant increase in *LNSALARY*. In contrast to *LNSALARY*, *LNINCENTIVE* and *LNOTHER* significantly decrease. These preliminary findings do not fully support the agency explanation since, under this theory, the last two variables are expected to increase. Nonetheless, I base my inferences on the multivariate analyses of the results section.

Table 3B provides the correlation matrix with the coefficients for the variables used in the multivariate analyses. Overall, the table indicates that multicollinearity is ruled out, because, in general, there is no strong linear relationship (R bigger than 0.7) between variables. However, a few significant coefficients need further attention. First, similar to the findings in the descriptive statistics, the correlation matrix shows that the number of smaller companies significantly increases after the JOBS Act, which is illustrated by the significant negative correlation between *EGC* and *NONSRC*. Also, there is a significant negative correlation between *EGC* and *LNASSETS*, which indicates that after the JOBS Act companies have a lower amount of total assets. Second, the correlation matrix shows a highly significant positive relation between *EGC* and *UNDERPRICING*, which indicates that the amount of information asymmetry is higher after the enactment of the JOBS Act. Contrary to *UNDERPRICING*, *LNOTHER* is negatively correlated to *EGC*. Third, there is a strong negative correlation between *EGC* and the disclosures that are subject to the JOBS Act provisions (*CD&A*, *NEOS*),

because most of the EGCs apply the provisions that grant disclosure relief. Furthermore, the positive correlation between *NONSRC* and *CD&A/NEOS*, indicates that SRC eligible firms provide fewer disclosures than non-SRC eligible firms.

Table 1: Descriptive statistics.

Panel A: Number of SRC and non-SRC EGCs in the pre- and post-JOBS Act period						
	Pre-JOBS Act		Post-JOBS Act		Total (%Δ Pre/Post)	
SRC eligible	48		198		246 (312.50%)	
Non-SRC eligible	74		168		242 (127.03%)	
Total (% SRC/Non-SRC)	122 (64.86%)		366 (117.86%)		488 (200.0%/101.65%)	

Panel B: Mean and median differences for the full sample						
	<i>Pre-JOBS Act</i> (<i>n</i> = 122)		<i>Post-JOBS</i> (<i>n</i> = 366)		<i>Statistics</i> (<i>P-values</i>)	
	<i>Mean</i>	<i>Median</i>	<i>Mean</i>	<i>Median</i>	<i>Mean</i>	<i>Median</i>
<i>LNSALARY</i>	11.397	12.625	12.094	12.749	0.023**	0.130
<i>LN Bonus</i>	3.845	0	4.544	0	0.245	0.331
<i>LN Stock</i>	1.798	0	1.646	0	0.745	0.790
<i>LN Options</i>	5.582	0	5.68	0	0.887	0.968
<i>LN Incentive</i>	5.65	0	4.624	0	0.099*	0.054*
<i>LN Other</i>	6.87	9.02	5.865	8.045	0.045**	0.051*
<i>LN Total</i>	12.91	13.493	13.241	13.484	0.242	0.743
<i>UNDERPRICING</i>	7.688	0	21.891	11.915	0.000***	0.000***
<i>RDX</i>	3.025	.039	4.967	.074	0.533	0.114
<i>OET</i>	2.112	.881	3.452	.932	0.203	0.065*
<i>LOSS</i>	.607	1	.754	1	0.002***	0.002***
<i>LN ASSETS</i>	18.258	18.302	17.749	17.82	0.007***	0.001***
<i>CASH</i>	.267	.193	.405	.307	0.000***	0.000***
<i>PPE</i>	.293	.135	.231	.091	0.064**	0.007***
<i>LEVERAGE</i>	.953	.632	1.096	.749	0.348	0.061**
<i>ROA</i>	-.364	-.032	-.712	-.269	0.019**	0.000***
<i>AGE</i>	50.169	50	51.354	51.5	0.153	0.108
<i>TENURE</i>	5.856	5	5.643	4	0.771	0.402
<i>EDUCATION</i>	1.517	2	1.778	2	0.015**	0.012**
<i>CHAIRMAN</i>	.364	0	.312	0	0.294	0.294
<i>BOARDSIZE</i>	8.513	8	7.822	8	0.040**	0.019**
<i>ANALYSTS</i>	2.68	2	3.268	3	0.021	0.058*
<i>INSTOWNERS</i>	.265	.247	.327	.275	0.048**	0.081*
<i>CD&A</i>	.926	1	.027	0	0.000***	0.000***
<i>NEOS</i>	5.034	5	3.273	3	0.000***	0.000***

This table reports the summary statistics of the sample selected in Table 1A. Panel A presents the number of SRC and non-SRC eligible EGCs. The row-percentages indicate the number of SRC eligible EGCs in comparison to non-SRC eligible EGCs and the column-percentages indicate the change in SRC and non-SRC eligible EGCs in the Pre- and Post-JOBS Act period. Panel B presents the mean and median differences of the variables for the full sample (*n* = 488). The mean differences are derived from the descriptive statistics in Table 1B. Continuous variables are winsorized at the top and bottom 1%, to correct for outliers. Variable definitions and sources are provided in Table 2A.

*, **, *** Indicate significance at the 0.10, 0.05, and 0.01 levels, respectively (based on two-tailed tests)

5. Research design

I employ basic ordinary least squares (OLS) regressions to examine whether the compensation-related JOBS Act provisions affect information asymmetry and compare the changes in executive compensation levels between the pre- and post-JOBS Act period. As in previous studies that examine the effect of changes in disclosure policies, OLS regression coefficients can be biased due to endogeneity. To deal with this endogeneity concern, I employ two empirical techniques. For the first two hypotheses, I use a propensity score matching (PSM) model for the full sample to match EGC firms with non-EGC firms. For the third hypothesis, I employ a difference-in-difference design, where I compare SRC and non-SRC eligible IPO firms in the pre- and post-JOBS Act period.

5.1. The empirical models to test for H1 and H2

To examine the effect of the JOBS Act on information asymmetry (H1) and executive compensation levels (H2), I use several multivariate analyses. In comparison to the univariate analyses of Table 1, the multivariate analyses can analyse the association between two variables. Also, it is possible to add additional control variables, that could impact the association between the dependent and the independent variables. For the first two hypotheses, I use basic OLS regressions, with the following form:

$$OUTCOME_i = \alpha_1 + \beta_1 EGC_i + \beta_k Control\ variables_i + \Sigma \beta_f Industry + \varepsilon_i \quad (1)$$

$$OUTCOME_i = \alpha_1 + \beta_1 PROVISION_i + \beta_k Control\ variables_i + \Sigma \beta_f Industry + \varepsilon_i \quad (2)$$

In equation (1), *EGC* is a dummy variable which measures the overall effect of the JOBS Act on the *OUTCOME* variable. *EGC* is equal to 1 if the firm has an EGC status as projected in the IPO prospectus, i.e. all IPO firms after April 5, 2012. *EGC* is equal to 0 if the IPO firm does not mention the EGC status in its IPO prospectus, i.e. all IPO firms before April 5, 2012. *OUTCOME* can either be a proxy for the level of information asymmetry (H1) or executive compensation (H2). To test for hypothesis 1, I follow [Barth et al. \(2017\)](#) and use IPO underpricing (*UNDERPRICING*) at the end of the first trading day as a proxy for information asymmetry. In equation (2), *PROVISION* represents the compensation-related de-burdening provision(s) used by the firm, as mentioned in their IPO prospectus. This can either be the omittance of the CD&A section (*CDAPROVISION*), providing less than 5 named executive

officers in the summary compensation table (*LESS5NEOS*) or both (*BOTHPROV*). The dummy variables *CDAPROVISION*, *LESS5NEOS* or *BOTHPROV* are sequentially analysed and equal to 1 if the IPO firm uses the specific provision(s) as mentioned in the IPO prospectus and equal to 0 if it does not. Out of prior research, I predict the relation between *PROVISION* and *UNDERPRICING* to be positive. Furthermore, I predict this relation to be more positive than the relation between *EGC* and *UNDERPRICING*, because [Guttentag \(2012\)](#) states that the JOBS Act includes provisions that either increase or decrease information asymmetry. According to [Guttentag \(2012\)](#), the provisions that grant disclosure relief, such as the compensation-related de-burdening provisions, increase information asymmetry. Other provisions, such as those that allow for gauging market interest through discussions with institutional investors before the IPO, decrease information asymmetry. Therefore, I predict that the overall effect of the JOBS Act (measured by *EGC*) is smaller than the effect of disclosure reducing provisions on IPO underpricing.

To test for hypothesis 2, I use equation (1) and the five different types of executive compensation (*LNSALARY*, *LN BONUS*, *LN STOCK*, *LN OPTIONS*, *LN INCENTIVE*, *LN TOTAL*) as the dependent variables. The independent variable *EGC* is similar to hypothesis 1. I do not predict a direction for these variables, because prior literature indicates that *a priori* it is hard to say which effect predominates or whether the effects exclude one another.

For both hypotheses, the regression model includes several control variables that could also have an effect on the dependent variables. When these variables are not included and correlate with the other independent variables, they could bias the coefficients of the OLS regression model. Similar to prior studies, I add firm characteristics (*LN ASSETS*, *RDX*, *OET*, *PPE*, *CASH*), performance measures (*LOSS*, *ROA*, *LEVERAGE*) and governance characteristics (*BOARDSIZE*, *CHAIRMAN*, *ANALYST*, *INSTOWNERS*). In comparison to prior studies about the JOBS Act, I add CEO characteristics (*AGE*, *TENURE*, *EDUCATION*), because prior literature indicates that these characteristics are a determinant of executive compensation and could have an effect on the disclosures provided (e.g. [Murphy, 1999](#)). The industry fixed effects are included to control for the systematic differences across industries. Unfortunately, time fixed effects could not be included due to multicollinearity with the *EGC* variable. Therefore, I use a homogenous sample period to diminish time effects. For more information about the variable definitions and their sources, I refer to Table 2A.

5.2. Propensity score matching

The coefficients of a basic OLS-regression can be biased due to several factors, such as omitted variables, self-selection and functional form misspecification. Consistent with prior research about the JOBS Act, this thesis uses several empirical techniques to deal with the endogeneity concern. Similar to the study of [Khurana and Zhao \(2019\)](#), I employ a PSM model, to increase confidence in the validity of the results. In recent years, PSM is frequently used in accounting literature to better estimate a treatment effect ([Shipman, Swanquist & Whited, 2017](#)). I propensity score match EGC firms in the post-JOBS Act period (i.e. treatment group) with non-EGC firms in the pre-JOBS Act period, that would have qualified for an EGC status had their IPO been after April 5, 2012 (i.e. control group). The PSM procedure consists of two stages. First, I use a prediction model that estimates the propensity score for the treatment. Second, I use equation (1) to measure the average treatment effect. In the prediction model (first stage), I include all firm, performance, governance and CEO characteristics from the multivariate regressions, because [Shipman et al. \(2017\)](#) suggest that, in the first stage without a specific reason, the PSM model should not include variables that are excluded from the multivariate regressions. Ultimately, in the first stage, I estimate the following probit regression:

$$\begin{aligned} \Pr(EGC_i) = & \alpha_1 + \beta_1 LNASSETS_i + \beta_2 RDX_i + OET_i + \beta_4 CASH_i + \beta_5 PPE_i + \beta_6 LOSS_i + \\ & \beta_7 LEVERAGE_i + \beta_8 ROA_i + \beta_9 CHAIRMAN_i + \beta_{10} BOARDSIZE_i + \\ & \beta_{11} ANALYSTS_i + \beta_{12} INSTOWNERS_i + \beta_{13} AGE_i + \beta_{14} TENURE_i + \\ & \beta_{15} EDUCATION_i + \Sigma \beta_f Industry + \varepsilon_i \end{aligned} \quad (3)$$

In equation (3), *EGC* is a dummy variable that is equal to 0 if the firm is a non-EGC firm and equal to 1 if the firm is an EGC firm, as reported in their IPO prospectus. A detailed description of the other independent variables can be found in Table 2A.

5.2.1 First stage estimates

Table 2 presents the propensity-score matching results. Similar to the study of [Khurana and Zhao \(2019\)](#), I find that *LNASSETS* and *EGC* are negatively associated, which indicates that smaller firms are more likely to adopt the EGC status. Also, Table 2 Panel A shows a significantly positive association between the amount of cash over total assets (*CASH*) and the adoption of the EGC status. Of particular interest is the positive association between the number of analyst following (*ANALYSTS*) and the EGC status adoption. [Bowen, Chen and Cheng \(2008\)](#) examine the relation between analyst coverage and the amount of second equity offering

(SEO) underpricing and find a negative relation, indicating that information asymmetry decreases with the number of analyst following. A significantly positive relation between the number of analyst following and the adoption of the EGC status could indicate that the de-burdening provisions introduced under the JOBS Act are used by firms to reduce the amount of information provided to investors, which, in turn, increases information asymmetry. Moreover, the model has an adjusted pseudo- R^2 of 13.44 per cent, which is a relatively low level of explanatory power in comparison to prior studies. However, according to [Shipman et al. \(2017\)](#) a lower explanatory power in the first-stage model, does not necessarily indicate that the PSM model is ineffective. Therefore, together with the multivariate analyses, I still regard this PSM model as effective.

Next, I match firms that adopted the EGC status after the enactment of the JOBS Act (i.e. EGC firms) with firms that would have adopted the EGC status had their IPO been after the enactment of the JOBS Act on April 5, 2012 (i.e. non-EGC firms). Following prior literature, I use a one-to-one PSM model without replacement and allow for a maximum propensity-score difference (i.e. caliper) of 0.02. Figure 1B provides a visual representation of the sample before and after matching. However, it is better to judge the predictability of this PSM model based on statistics. Table 2 Panel B shows that the propensity-score matching EGC to non-EGC firms results in 94 matched firms. Table 2 Panel C columns (1) – (3) present the covariate balance test for the PSM model without replacement. Column (3) shows that the p-values of this test are all statistically insignificant, which is a desirable condition to use the PSM model because it indicates that the mean values of the treatment and control group are insignificantly different from each other. This takes away (part of) the concern of an idiosyncratic control group that is not representative of the post-JOBS Act EGCs. Next to the PSM model without replacement, I use a PSM model with replacement (caliper 0.10), because [Shipman et al. \(2017\)](#) state that a PSM model with replacement could decrease bias, since one control observation may be the best match to multiple treatment observations. This increases the size of the matched sample because, according to Table 1 Panel A, the number of control firms (non-EGC firms in the pre-JOBS Act period) is smaller than the number of treatment firms (EGC firms in the post-JOBS Act period). Specifically, Table 2 Panel B shows that, for every non-EGC firm, I match 2.79 EGC firms. In comparison to the PSM model without replacement, the p-values for *LNASSETS*, *CASH* and *BOARDSIZE* are statistically significant (Table 2 Panel C Column (6)), indicating a significant difference in the mean values of these variables. However, this is not an issue, since I control for these variables in my multivariate analyses.

Table 2: Propensity-score matching results

Panel A: Propensity-score estimates of the probit regression

	<i>Coefficient</i>	<i>Z-statistic</i>	<i>P> z </i>
<i>LNASSETS</i>	-0.123	-1.68	0.093*
<i>RDX</i>	-0.002	-0.68	0.498
<i>OET</i>	0.004	0.46	0.647
<i>CASH</i>	0.576	1.74	0.083*
<i>PPE</i>	-0.246	-0.90	0.369
<i>LOSS</i>	0.279	1.45	0.146
<i>LEVERAGE</i>	-0.042	-0.59	0.553
<i>ROA</i>	0.026	0.29	0.769
<i>CHAIRMAN</i>	-0.055	-0.35	0.728
<i>BOARDSIZE</i>	-0.038	-1.51	0.130
<i>ANALYSTS</i>	0.071	2.15	0.031**
<i>INSTOWNERS</i>	0.305	1.14	0.255
<i>AGE</i>	0.007	0.68	0.499
<i>TENURE</i>	0.011	0.79	0.432
<i>EDUCATION</i>	0.065	0.78	0.437
<i>INDUSTRYFE</i>	Y		
<i>Observations (N)</i>	429		
<i>Adj. Pseudo-R²</i>	13.44%		
<i>Prob > Chi2</i>	0.000		

Panel B: Number of propensity-score matches and control to treatment firm ratio

	PSM without replacement (cal. 0.02)	PSM with replacement (cal. 0.10)
<i># of matches (C:T)</i>	94 (1:1)	287 (1:2.79)

Panel C: Covariate balance test PSM model without and with replacement

	<i>Mean differences</i>			<i>Mean differences</i>		
	(1) <i>EGC</i>	(2) <i>Non-EGC</i>	(3) <i>P-Values</i>	(4) <i>EGC</i>	(5) <i>Non-EGC</i>	(6) <i>P-Values</i>
<i>LNASSETS</i>	18.134	18.200	0.769	17.605	17.891	0.028**
<i>RDX</i>	3.583	3.878	0.946	5.005	4.068	0.708
<i>OET</i>	1.648	2.479	0.419	3.773	2.609	0.178
<i>CASH</i>	0.264	0.299	0.314	0.401	0.309	0.000***
<i>PPE</i>	0.255	0.253	0.964	0.233	0.257	0.378
<i>LOSS</i>	0.702	0.660	0.534	0.780	0.732	0.174
<i>LEVERAGE</i>	1.122	1.022	0.646	1.175	1.067	0.417
<i>ROA</i>	-0.431	-0.461	0.869	-0.737	-0.616	0.302
<i>CHAIRMAN</i>	0.340	0.383	0.546	0.324	0.279	0.238
<i>BOARDSIZE</i>	8.702	8.383	0.507	8.052	8.523	0.060*
<i>ANALYSTS</i>	3.181	3.075	0.784	3.112	3.303	0.319
<i>INSTOWNERS</i>	0.235	0.296	0.111	0.294	0.289	0.805
<i>AGE</i>	49.596	50.383	0.502	50.990	50.756	0.711
<i>TENURE</i>	6.223	5.755	0.515	5.533	5.700	0.687
<i>EDUCATION</i>	1.532	1.596	0.629	1.808	1.711	0.212

Table 2: Propensity-score matching results (continued)

<i>INDUSTRYFE</i>	Y	
<i>Observations (N)</i>	429	
<i>Adj. Pseudo-R²</i>	13.44%	
<i>Prob > Chi2</i>	0.000	

This table presents the propensity score matching results. The dependent variable is EGC, which is equal to 1 if the firm is in the treatment group (EGC firm) and equal to 0 if the firm is in the control group (non-EGC firm). Panel A provides the propensity-score estimates, including the coefficient, z-statistic and p-value of the different covariates. Panel B, provides the number of matches and the control over treatment (C:T) ratio. Panel C, provides the covariate balance tests for the PSM model with and without replacement. Industry fixed effects (*INDUSTRYFE*) (Y/N) are based on two-digit SIC codes and included to control for the confounding effects resulting from systematic differences across industries. For further information about the variable definitions and sources, I refer to Table 2A.

*, **, *** Indicate significance at the 0.10, 0.05, and 0.01 levels, respectively (based on two-tailed tests).

5.3. The empirical model to test for H3

Chaplinsky et al. (2017) predict that the effect of the JOBS Act on the direct and indirect costs of going public is different for SRC eligible in comparison to non-SRC eligible companies and find that the effect on indirect costs is more pronounced for companies that are newly eligible to disclosure relief (i.e. non-SRC eligible EGCs). Grinstein et al. (2017) find similar results in their study, where they examine the impact of the 2006 disclosure amendments that tightened the rules for perk disclosures on the perks awarded to executives at first-time and existing disclosers. I follow the study of Chaplinsky et al. (2017) and predict that the effect of the JOBS Act on executive compensation is principally concentrated at non-SRC eligible EGCs because the SRC eligible EGCs could opt for disclosure relief before the enactment of the JOBS Act under Regulation S-K. Because the SRC eligible companies could already opt for disclosure relief, there are no real changes regarding compensation-related disclosure exemptions for these companies. Therefore, for the third hypothesis, I classify those companies to the control group. Furthermore, I classify non-SRC eligible IPO firms, with total annual revenues above \$50 million, to the treatment group. This setting allows me to apply a difference-in-difference model, where I analyse the effect of the JOBS Act on executive compensation of non-SRC eligible EGCs in comparison to SRC eligible EGCs. The right-hand column of Table 1 Panel A, indicates that the size of the two groups is almost equal. This quasi-experimental research design estimates how a plausibly exogenous treatment affects the treatment group, but not the control group, and helps to (partially) rule out the endogenous effect of omitted correlated variables. The difference-in-difference regression of this thesis has the following form:

$$\begin{aligned}
 OUTCOME_i = & \alpha_1 + \beta_1 EGC_i + \beta_2 NONSRC_i + \beta_3 EGC_i * NONSRC_i + \\
 & \beta_k Control\ variables_i + \Sigma \beta_f Industry + \varepsilon_i
 \end{aligned} \tag{4}$$

Equation (4) uses almost the same variables as equation (1). However, it expands the basic OLS regression by adding a variable for SRC eligibility (*NONSRC*). *NONSRC* equals 1 if it is an IPO that is non-SRC eligible, and equals 0 if it is an IPO that is SRC eligible under regulation S-K. The variable of interest is β_3 , which measures the effect of non-SRC eligible EGCs (*NONSRC*== 1; *EGC*== 1) on executive compensation. Similar to equation (1), equation (4) adds several control variables and the industry fixed effects to control for any confounding factors that could bias the results.

6. Empirical results

Table 1 of section 4.2 presents the summary statistics including univariate analyses to test for significant differences in the means and medians of the variables between the pre- and post-JOBS Act period. The results of these tests should be interpreted with caution because they could be biased due to confounding factors. To control for any confounding effects and better measure the effect of the JOBS Act on the outcome variables, I employ several multivariate analyses and statistical techniques. This section describes the results of the multivariate analyses explained in section 5, including the statistical and economical interpretations. Furthermore, I explain the implications and limitations of the results and whether the results are consistent with the hypotheses.

6.1. The JOBS Act on the degree of information asymmetry

Table 3 presents the OLS regression results for equation (1) and equation (2) of section 5.1. Equation (1) measures the overall effect of the JOBS Act, as measured by *EGC*, on IPO underpricing (*UNDERPRICING*). Moreover, equation (2) measures the specific effects of the compensation-related de-burdening provisions on IPO underpricing. Column (1) of Table 3 presents the results for the effect of the independent variable *EGC* on the dependent variable *UNDERPRICING*. Out of the basic OLS regression results shown in column (1) of Table 3 Panel A follows that the coefficient for *EGC* is positive and statistically significant at the 1 per cent level, suggesting that the amount of IPO underpricing is significantly higher for IPO firms in post-JOBS Act period in comparison to the pre-JOBS Act period. Because IPO underpricing serves as a proxy for information asymmetry, this indicates (*ceteris paribus*) larger information asymmetry between the investors and executives after the enactment of the JOBS Act, which is in line with the concerns about investor protection of Guttentag (2012). This result is also economically significant. The coefficient of *EGC* in column (1) suggests that the average IPO

underpricing in the post-JOBS Act period is approximately 14 percentage points higher. The risk premium underwriters use to compensate potential investors results in foregone IPO proceeds and, in turn, higher costs of capital for the firm. Untabulated results show that the mean (median) net IPO proceeds of the EGC sample is equal to \$118.64 (\$77.98) million. Therefore, the mean (median) incremental decrease in net IPO proceeds of the EGC firms in the post-JOBS Act period is equal to \$16.38 (\$10.77) million. Foregone IPO proceeds are a cost of capital for IPO firms. However, it is subjective whether this increase in indirect costs should be negatively perceived without knowing the incremental benefit managers and investors can gain from providing less information to outsiders (Barth et al., 2017).

Guttentag (2012) states several concerns about investor protection, among which a potential increase in information asymmetry due to the JOBS Act. However, the potential harm of information asymmetry to investors resulting from the EGC status is complex, because the EGC provisions allow for an increase as well as a decrease in the communication of information to investors. Sources for an increase in information asymmetry are the compensation-related de-burdening provisions because they allow EGCs to provide fewer disclosures on executive compensation to investors. Therefore, I examine the effect of the specific compensation-related de-burdening provisions in addition to the overall effect of the JOBS Act.

Columns (2), (3) and (4) of Table 3 Panel A present the results of the basic OLS regression of equation (2), with *CDAPROVISION*, *LESS5NEOS* and *BOTHPROV* as the independent variables, respectively. Similar to the coefficient of column (1), these coefficients are positive and statistically significant at the 1 per cent level. The results indicate that for these specific de-burdening provisions, IPO underpricing significantly increases after the enactment of the JOBS Act. The average incremental foregone net IPO proceeds for these variables range between 9 and 13 percentage points, which is slightly less than for the *EGC* variable. This could be due to the application of other de-burdening provisions besides the compensation-related de-burdening provisions that increase information asymmetry to an even higher degree, e.g. the de-burdening provision that allows an EGC to submit only two years of audited financial statements. The coefficients of column (2), (3) and (4) imply a mean (median) decrease in net IPO proceeds at the end of the first trading day of \$14.96, \$11.12 and \$11.78 (\$9.84, \$7.31 and \$7.74) million. Again, the results show that the application of these compensation-related de-burdening provisions increases the cost of capital for EGCs.

Panel B of Table 3 presents the results of a treatment group of 94 EGC firms matched to a control group of 94 non-EGC firms by the PSM model without replacement (cal. 0.02). Similar to panel A, all coefficients are positive and statistically significant at the 1 per cent

level, indicating that for the matched sample IPO underpricing significantly increases. In contrast to Panel A, the coefficient indicating an increase in IPO underpricing is slightly less for the *EGC* variable and slightly more for the *PROVISION* variables. Untabulated results of the PSM model with replacement (0.10) show the same patterns. In summary, the results of the matched sample OLS regressions corroborate the results of the basic OLS regression and indicate (*ceteris paribus*) that the information asymmetry at EGCs is significantly higher after the enactment JOBS Act. These results are consistent with the first hypothesis, stating that JOBS Act increases the degree of information asymmetry. Therefore, I accept the alternative hypothesis (i.e. I reject the null hypothesis). A higher degree of information asymmetry can reduce investors protection. This result can be classified as an unintended consequence of the JOBS Act.

Complementary to prior literature (e.g. Barth et al., 2017; Chaplinsky et al., 2017), the results of table 3 indicate that a significant increase in information asymmetry holds for an extended post-JOBS Act period, which is relevant since prior literature shows that the real effect of a change in disclosure regulations is better to observe when the Act matures. In comparison to prior literature, I find higher percentages for IPO underpricing at the end of the first trading day. In contrast, untabulated results together with Table 2B show that the means and means of IPO underpricing do not significantly differ between the SRC and the non-SRC sample. Several reasons could explain these phenomena. First, this thesis takes into account more post-JOBS Act data, because the post-JOBS Act period comprises a larger amount of time. For example, in comparison to Barth et al. (2017), the post-JOBS Act sample period is 2.5 years larger. Second, the IPO firms in the sample significantly differ from previous studies that examine the effects of the JOBS Act. This could be due to the manual removal of firms in the sample selection process. Third, I use Thomson ONE to gather data on IPO underpricing at the end of the first trading day, whereas other studies regularly use CRSP. However, the two databases largely overlap and Thomson ONE provides me with more data on IPO underpricing. Therefore, I consider the first two reasons to be the most plausible explanations for these phenomena.

Barth et al. (2017) provide two explanations for the use of de-burdening provisions, which increase information asymmetry, namely the proprietary information explanation (see Dambra et al., 2015) and the agency explanation (see section 2.2). They conclude that the use of compensation-related de-burdening provisions is largely related to the agency explanation. Through an increase in information asymmetry due to the disclosure relief, managers can more easily extract rents from the company at the expense of the shareholders. However, in section

3 I explain how disclosure relief can have a two-sided effect on executive compensation. Therefore, the following section examines the effects of the JOBS Act on executive compensation.

Panel A: Unmatched sample results				
<i>UNDERPRICING</i>	(1)	(2)	(3)	(4)
<i>EGC</i>	13.806*** (4.286)			
<i>CDAPROVISION</i>		12.617*** (4.015)		
<i>LESS5NEOS</i>			9.372*** (2.970)	
<i>BOTHPROV</i>				9.925*** (3.371)
<i>CONSTANT</i>	28.895 (0.744)	19.000 (0.528)	21.940 (0.604)	23.782 (0.659)
<i>CONTROLS</i>	Y	Y	Y	Y
<i>INDUSTRYFE</i>	Y	Y	Y	Y
<i>Observations (N)</i>	481	481	481	481
<i>Adjusted R²</i>	0.159	0.155	0.141	0.146
Panel B: Matched sample results				
<i>UNDERPRICING</i>	(1)	(2)	(3)	(4)
<i>EGC</i>	13.155*** (3.751)			
<i>CDAPROVISION</i>		12.865*** (3.647)		
<i>LESS5NEOS</i>			9.913*** (2.693)	
<i>BOTHPROV</i>				11.293*** (3.167)
<i>CONSTANT</i>	37.663 (0.862)	37.669 (0.860)	30.467 (0.678)	41.513 (0.940)
<i>CONTROLS</i>	Y	Y	Y	Y
<i>INDUSTRYFE</i>	Y	Y	Y	Y
<i>Observations (N)</i>	188	188	188	188
<i>Adjusted R²</i>	0.214	0.210	0.262	0.195

This table presents the OLS regression results and PSM regression results of the first hypothesis. Panel A presents the basic OLS regression summary statistics of equation (1) and equation (2). Panel B presents the PSM OLS regression summary statistics of equation (1) and equation (2). For Panel B, I used the PSM model without replacement (caliper 0.02). Industry fixed effects (*INDUSTRYFE*) (Y/N) are based on two-digit SIC codes and included to control for the confounding effects resulting from systematic differences across industries. Control variables are added to correct for other confounding effects. Continuous variables are winsorized at 1% and 99%. For the full table of OLS regression results including all control variables, I refer to Table 1 of Appendix C.

*** Indicates significance at the 0.01 level (t-statistics in parentheses).

6.2. The JOBS Act on executive compensation

The summary statistics of Table 1 Panel B carefully provide preliminary evidence for changes in the executive compensation levels. The inferences of this thesis are based on the multivariate analyses, where I control for confounding factors by including control variables. Panel A of Table 4 presents the summarized results of equation (1), where I use the different types of executive compensation as the dependent variables and *EGC* as the independent variable in the basic OLS regression. For the full results including control variables, I refer to Table 2C. Equation (1) measures the effect of the JOBS Act (*EGC*) on the executive compensation levels at IPO firms. Column (2) of Panel A shows that *LNSALARY* is positive and statistically significant at the 10 per cent level, indicating that for the post-JOBS Act period, the total amount of salary is significantly higher at EGC firms. The economic magnitude of the difference in *LNSALARY* between the pre- and post-JOBS Act period is calculated by $(e^{\beta_1} - 1) * 100\%$, where β_1 is the coefficient of *EGC* as indicated in equation (1). Out of the results in column (2) follows that for the post-JOBS Act period salary significantly increases with 74 per cent, which represents a mean difference of approximately \$248,632 between the pre- and post-JOBS Act period. Moreover, column (3) shows an increase in *LN BONUS* which is statistically insignificant. The economic magnitude of this increase is equal to 153 per cent, which represents a mean difference of approximately \$168,503. Similar to column (3), the remainder of columns representing the other types of executive compensation and the total compensation also provide statistically insignificant results, indicating there is no credible evidence that supports a change in these types of executive compensation. Generally, there are three reasons why a regression model provides insignificant results. First, there is no linear relation between the independent and the dependent variable, and, therefore, there is no significant effect of the EGC status on the dependent variables. However, there can still be an effect, since statistics never provide support to conclude that there is no effect at all. Second, other confounding variables not included in the model bias the coefficient because they correlate with the variable of interest and have an effect on the dependent variable. Third, the relatively small sample size increases the likelihood of a type 2 error, which decreases the statistical power of the study. Specifically, there is another reason that can explain insignificant results. In the hypothesis development (see section 3), I show different underlying theories that can explain the effect of the JOBS Act on executive compensation. These theories show that the JOBS Act either can have a positive or negative effect on executive compensation. The underlying forces of these theories can weaken the effect, which results in insignificant findings.

One issue of a basic OLS regression is that the results can be biased due to endogeneity. Therefore, I employ two PSM models to deal with the endogeneity concern. Panel B of Table 4 presents the results of a PSM model without replacement (cal. 0.02). This model examines the effect of the JOBS Act on executive compensation for a matched group of EGC and non-EGC firms. In comparison to Panel A, column (2) of Panel B is statistically insignificant, indicating no credible evidence for an increase in salary, subverting the credibility of evidence found in Panel A. Moreover, column (4) of Panel B shows that *LNSTOCK* is negative and statistically significant at the 10 per cent level, which suggests *LNSTOCK* is significantly lower for EGCs in comparison to non-EGCs. This result should be interpreted with caution because the t-statistic is just a little higher than the statistical benchmark of 10 per cent. Additionally, Panel B presents that all other variables are statistically insignificant. For the full results of these multivariate regressions including control variables (*CONTROLS*), I refer to Table 2C.

Noteworthy, are the signs of the coefficients in Panel A and Panel B of Table 4. In both panels, the coefficients for the different types of cash compensation (i.e. *LNSALARY* and *LN Bonus*) are positive, whereas the coefficients for the different types of non-cash compensation (i.e. *LNSTOCK*, *LNOPTIONS*, *LNINCENTIVE* and *LNOTHER*) are negative. This could indicate that, although there are hardly any significant differences in the executive compensation levels, there are significant differences within the compensation packages between the pre- and post-JOBS Act period. Moreover, it could indicate a shift in executives' pay structures from non-cash to cash compensation, which can have negative consequences for investors.

Table 5 presents the results of the multivariate analyses with cash compensation over total compensation and non-cash compensation over total compensation as the dependent variables. Column (1) and (3) show that the coefficient of *EGC* is positive and statistically significant at the 5 and 1 per cent level, respectively. The coefficients of columns (1) and (3) imply a statistically and economically significant increase in cash compensation over total compensation that ranges from 7 to 10 per cent. Moreover, columns (2) and (4) show that the coefficient of *EGC* is negative and statistically significant at the 10 per cent level. These coefficients suggest a statistically and economically significant decrease in non-cash compensation over total compensation that ranges from 6 to 7 per cent. These results suggest a shift from non-cash compensation to cash-compensation at EGCs after the enactment of the JOBS Act. For the full sample, non-cash compensation provided to executives is relatively larger than cash compensation. In absolute terms, the decrease in non-cash compensation puts more weight on total compensation than the increase in cash compensation. Therefore, total

Table 4: OLS regression results of hypothesis 2

Panel A: Unmatched sample results							
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
<i>EGC</i>	-0.042 (-0.161)	0.555* (1.884)	0.929 (1.340)	-0.216 (-0.396)	-0.918 (-1.200)	-0.580 (-0.843)	-0.736 (-1.310)
<i>CONSTANT</i>	5.751* (1.803)	1.862 (0.524)	-12.735 (-1.523)	-4.597 (-0.699)	-5.035 (-0.546)	1.505 (0.181)	-5.939 (-0.876)
<i>CONTROLS</i>	Y	Y	Y	Y	Y	Y	Y
<i>INDUSTRYFE</i>	Y	Y	Y	Y	Y	Y	Y
<i>Observations (N)</i>	481	481	481	481	481	481	481
<i>Adjusted R²</i>	0.305	0.319	0.146	0.131	0.212	0.218	0.189
Panel B: Matched sample results							
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
<i>EGC</i>	-0.304 (-1.208)	0.550 (1.443)	0.195 (0.229)	-1.207* (-1.686)	-1.327 (-1.360)	-0.001 (-0.001)	-1.070 (-1.507)
<i>CONSTANT</i>	8.057** (2.569)	1.889 (0.398)	-15.174 (-1.429)	-11.626 (-1.303)	7.259 (0.597)	9.230 (0.823)	-14.230 (-1.610)
<i>CONTROLS</i>	Y	Y	Y	Y	Y	Y	Y
<i>INDUSTRYFE</i>	Y	Y	Y	Y	Y	Y	Y
<i>Observations (N)</i>	188	188	188	188	188	188	188
<i>Adjusted R²</i>	0.222	0.216	0.212	0.184	0.231	0.226	0.194

Dependent variables:

Column (1) = *LNTOTAL*

Column (2) = *LNSALARY*

Column (3) = *LN Bonus*

Column (4) = *LN Stock*

Column (5) = *LN Option*

Column (6) = *LN Incentive*

Column (7) = *LN Other*

This table presents the OLS regression results and PSM regression results of the second hypothesis. Panel A presents the basic OLS regression summary statistics of equation (1). Panel B presents the PSM OLS regression summary statistics of equation (1). For Panel B, I used the PSM model without replacement (caliper 0.02). Industry fixed effects (*INDUSTRYFE*) (Y/N) are based on two-digit SIC codes and included to control for the confounding effects resulting from systematic differences across industries. Control variables are added to correct for other confounding effects. Continuous variables are winsorized at 1% and 99%. For the full table of OLS regression results including all control variables, I refer to Table 2 of Appendix C.

*, ** Indicates significance at the 0.10, and 0.05 levels, respectively (t-statistics in parentheses).

compensation should decline after the enactment of the JOBS Act, which is in line with the negative coefficient in column (1) of Table 4.

The managerial power approach introduced by [Bebchuck et al. \(2002\)](#), together with managerial risk aversion could explain the shift in executive compensation packages from non-cash to cash compensation. The managerial power approach sees executive compensation as part of the agency problem and not as a means to an end. Managerial risk aversion states that, in comparison to the shareholders, managers are risk-averse and prefer stability in their compensation packages. Because non-cash compensation is more prone to instability, executives try to shift their compensation packages towards cash compensation. From an

agency theory perspective, an increase in information asymmetry, as shown in the results of hypothesis 1, makes it easier for executives to accomplish such a shift. When pay arrangements are less equity-based this could harm investors. Shareholder value can reduce when the link between total compensation and the executive's performance decreases. According to [Bebchuck and Fried \(2003\)](#), the increase in inefficient pay packages due to a manager's ability to influence compensation could result in shareholder costs that are larger than the costs of an increase in compensation. Therefore, this shift in compensation packages towards more non-incentive based pay can be regarded as the second unintended consequence of the JOBS Act. Based on the results of the compensation levels, I agree with [Gipper \(2016\)](#), who finds results inconsistent with the agency theory. Contrary, based on the compensation packages, I disagree with [Gipper \(2016\)](#) and do find results that are consistent with the agency explanation.

Overall, these results suggest that the JOBS Act does not have a statistically significant effect on executive compensation levels, except for the level of stock options provided to the executive, while it does have a statistically significant effect on the composition of executive compensation packages. Therefore, I partially reject the second hypothesis, which states that the JOBS Act does not have an effect on executive compensation.

	Unmatched Sample		Matched Sample	
	(1)	(2)	(3)	(4)
EGC	0.065** (2.263)	-0.058* (-1.930)	0.096*** (2.969)	-0.073* (-1.736)
<i>CONSTANT</i>	0.570 (1.614)	0.053 (0.144)	0.436 (1.102)	-0.015 (-0.029)
<i>INDUSTRYFE</i>	Y	Y	Y	Y
<i>Observations (N)</i>	470	470	187	187
<i>Adjusted-R²</i>	0.163	0.168	0.289	0.175

This table presents the summarized OLS regression results of the effect of the JOBS Act on executive compensation packages. Columns (1) and (3) present the basic OLS regression summary statistics for the cash compensation ratio (i.e. the natural logarithm of total cash compensation over total compensation) of the unmatched and matched sample, respectively. Columns (2) and (4) present the basic OLS regression summary statistics for the non-cash compensation ratio (i.e. the natural logarithm of total non-cash compensation over total compensation) of the unmatched and matched sample, respectively. For columns (3) and (4), I used the PSM model without replacement (caliper 0.02). Industry fixed effects (*INDUSTRYFE*) (Y/N) are based on two-digit SIC codes and included to control for the confounding effects resulting from systematic differences across industries. Control variables are added to correct for other confounding effects. Continuous variables are winsorized at 1% and 99%. For the full table of the OLS regression results including all control variables, I refer to Table 3C.

*, **, *** Indicates significance at the 0.10, 0.05, and 0.01 levels, respectively (t-statistics in parentheses).

6.3. The JOBS Act on executive compensation levels at non-SRC eligible EGCs

Table 6 presents the results of the difference-in-difference model of equation (4). To test for hypothesis 3, the model includes an additional variable to equation (1) that measures the effect of the SRC eligibility on executive compensation (*NONSRC*). Moreover, an interaction term is

added ($EGC * NONSRC$). In this model, the interaction term is the variable of interest, which captures the differential effect of the JOBS Act on non-SRC eligible and SRC eligible IPO firms. In comparison to the PSM models used in section 6.1 and 6.2, the treatment and control group have shifted from EGC IPO firms (i.e. IPOs after April 5, 2012) and non-EGC IPO firms (i.e. IPOs before April 5, 2012) to non-SRC eligible IPO firms and SRC eligible IPO firms. In this setting, the control group should not be affected by the de-burdening provisions introduced under the JOBS Act because, under regulation S-K, IPO firms that were SRC eligible could already opt for disclosure relief before the enactment of the JOBS Act. Therefore, similar to [Chaplinsky et al. \(2017\)](#), I predict that the effect of the JOBS Act is more pronounced for the treatment group, containing non-SRC eligible IPO firms.

In Table 6, the signs of the coefficients for the *EGC* variable are quite similar to the signs of the coefficients of Table 4. Contrary, Table 6 shows a positive relation between *EGC* and *LNSTOCK*. However, the results for the variable *EGC* are all statistically insignificant and, therefore, they should be interpreted with caution. Out of columns (1) – (7) of Table 6 follows that, except for *LNSTOCK*, there are no statistically significant differences in the changes in executive compensation levels between the SRC eligible and the non-SRC eligible firms. The coefficient for $EGC * NONSRC$ on *LNSTOCK* implies that after the enactment of the JOBS Act there is a significantly stronger decrease in the stock options for the non-SRC eligible firms in comparison to the SRC eligible firms. The coefficient, suggests that *LNSTOCK* of the non-SRC eligible firms decreases with approximately 92 per cent between the pre- and post-JOBS Act period, which is 22 percentage points higher than the decrease in *LNSTOCK* presented by the PSM model of Table 4 Panel B. This indicates that for the non-SRC eligible firms there is a higher decrease in the level of stock options than for the SRC eligible firms due to the enactment of the JOBS Act. This corroborates the univariate results of Table 1B Panel B and C, which shows an increase and a decrease of *LNSTOCK* for the SRC and the non-SRC sample, respectively.

Next, I examine the differential effect of the JOBS Act on executive compensation packages at SRC eligible and non-SRC eligible firms. The results of these analyses can be found in Table 5C. Although the signs of the coefficients are similar to the coefficients of the basic OLS regression presented in table 5, the coefficients are not statistically significant. Therefore, I cannot make any inferences based on these results. In section 6.2, the agency theory together with the theory of managerial risk aversion explains the changes in executive compensation packages from non-cash compensation to cash compensation. According to the results in section 6.2, one driver for the change in executive pay structures is the increase in information

asymmetry between executives and shareholders due to a reduction in the disclosures provided to investors. Prior literature (e.g. [Chaplinsky et al., 2017](#)) illustrates that the effect of the JOBS Act on information asymmetry is more pronounced at the non-SRC eligible IPO firms. Therefore, the effect on executive compensation will likely be stronger for non-SRC eligible IPO firms. However, the results of the mean differences between the SRC and the non-SRC sample presented in [Table 2B](#) do not corroborate this view. No significant difference in the underlying factor that causes a change in executive compensation packages between the SRC and the non-SRC sample (i.e. IPO underpricing) could be an explanation for why I fail to find significant differences on a change in executive compensation packages between the SRC eligible and the non-SRC eligible IPO firms.

Overall, except for *LNSTOCK*, most of the coefficients in [Table 6](#) and [5C](#) are statically insignificant, which is inconsistent with the third hypothesis. Therefore, based on the majority of executive compensation types and the executives' pay structures, I reject the third hypothesis (i.e. I do not reject the null hypothesis).

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
<i>EGC</i>	-0.206 (-0.515)	0.565 (1.276)	0.232 (0.222)	1.283 (1.567)	-1.744 (-1.516)	-1.177 (-1.137)	-0.372 (-0.441)
<i>NONSRC</i>	0.296 (0.557)	0.963 (1.633)	0.015 (0.010)	1.472 (1.350)	-3.186** (-2.079)	1.281 (0.929)	2.541** (2.262)
<i>EGC * NONSRC</i>	0.253 (0.475)	-0.091 (-0.154)	1.177 (0.842)	-2.647** (-2.420)	1.640 (1.067)	0.911 (0.659)	-0.809 (-0.718)
<i>CONSTANT</i>	6.644** (2.036)	3.133 (0.865)	-10.609 (-1.239)	-7.138 (-1.066)	-6.845 (-0.728)	5.040 (0.595)	-3.604 (-0.523)
<i>INDUSTRYFE</i>	Y	Y	Y	Y	Y	Y	Y
<i>Observations (N)</i>	481	481	481	481	481	481	481
<i>Adjusted R²</i>	0.308	0.327	0.149	0.144	0.220	0.226	0.202

Dependent variables:

Column (1) = *LNTOTAL*

Column (2) = *LNSALARY*

Column (3) = *LN Bonus*

Column (4) = *LNSTOCK*

Column (5) = *LNOPTION*

Column (6) = *LNINCENTIVE*

Column (7) = *LNOTHER*

This table presents the difference-in-difference OLS regression results of the third hypothesis. Industry fixed effects (*INDUSTRYFE*) (Y/N) are based on two-digit SIC codes and included to control for the confounding effects resulting from systematic differences across industries. Control variables are added to correct for other confounding effects. Continuous variables are winsorized at 1% and 99%. For the full table of OLS regression results including all control variables, I refer to [Table 2C](#).

** Indicates significance at the 0.05 level (t-statistics in parentheses).

7. Conclusion

In this thesis, I examine the effect of the Jumpstart Our Business Startups (JOBS) Act on executive compensation at U.S. EGCs. By the introduction of several de-risking and de-burdening provisions for EGCs, the JOBS Act has to make the IPO process less burdensome for small companies, which should increase the number of small firms going public, creating jobs and stimulating economic growth. Among other things, the de-burdening provisions reduce compensation-related disclosures, which affects the information provided to investors and, in turn, can affect the amount of executive compensation. Prior literature provides mixed results about the relation between a reduction in mandatory disclosures and executive compensation.

In corroboration to prior studies, I predict and find an increase in IPO underpricing for an extended sample period, which implies that information asymmetry is bigger after the enactment of the JOBS Act. Moreover, I find similar results for the specific compensation-related de-burdening provisions. Prior literature does not provide a unanimous explanation for the effect of an increase in information asymmetry on executive compensation. The managerial power approach introduced by [Bebchuck and Fried \(2003\)](#) recognizes executive compensation as an agency problem. Higher information asymmetry could increase managerial power, which gives executives the ability to extract rents from the company in terms of higher compensation. However, [Gipper \(2016\)](#) provides results that are inconsistent with this explanation and argues that an increase in information asymmetry, due to reduced disclosures, could also decrease compensation, because executives are less able to reflect their managerial ability causing the shareholders to update their beliefs downwards. I find that the pay-levels for the majority of compensation types do not differ significantly. These results do not suggest an agency problem, where managers use their power to extract rents from the company in the form of higher compensation. However, after examining the signs of the coefficients and the cash and non-cash compensation ratios, I find a shift in executive compensation packages from non-cash to cash compensation. From an agency theory perspective, an increase in information asymmetry due to the JOBS Act can give powerful executives the incentive to change their compensation packages to more stable forms of income. This change in executive pay structures can have negative consequences for investors because executive compensation is less related to firm performance, which could discourage an executive to work in the best interest of the shareholders. Prior studies conclude that the effect of the JOBS Act is different between the SRC and non-SRC eligible EGCs. Therefore, I predict that the potential effect of the JOBS Act on executive compensation is more pronounced at the IPO firms that are newly eligible to

disclosure relief (i.e. non-SRC eligible IPO firms). Contrary to prior literature, for the majority of compensation types, I fail to find significant differences in pay level and pay structure changes between the SRC and non-SRC eligible IPO firms, which can be explained by an insignificant mean difference in IPO underpricing between the SRC and the non-SRC sample.

Concluding, besides the intended consequences found in prior literature, such as an increase in smaller firm IPOs that spur economic growth and create jobs, the JOBS Act has unintended consequences, such as an increase in information asymmetry. Although prior literature (e.g. [Dambra et al. 2015](#)) indicates that an increase in information asymmetry can have positive consequences for investors (e.g. disclosing less proprietary information can enhance the competitive position), this thesis explains that it can also result in changes in the executive pay structure that have negative consequences for investors. Therefore, through a rise in information asymmetry the JOBS Act does have an effect on executive compensation at U.S. EGCs. Moreover, the JOBS Act has intended as well as unintended consequences that should be taken into account by the SEC in its consideration to further increase disclosure exemptions for all publicly traded firms.

This thesis contributes to scientific literature on the JOBS Act, (changes in) disclosure regulations and executive compensation. First, it is one of the first studies to examine the (unintended) consequences of the JOBS Act on executive compensation. Although [Gipper \(2016\)](#) provides preliminary evidence for the effect of the partial rollback of the CD&A section on the total executive compensation, his study does not measure the overall effect of the JOBS Act on the different types of executive compensation or executive compensation structures. Furthermore, I extend the sample size of the post-JOBS Act period. [Gipper \(2016\)](#) states that for his JOBS Act sample, he is unable to measure the long-run effects. Therefore, this thesis provides a better explanation of the real effects of the JOBS Act on executive compensation. Second, I add to a variety of prior studies that find contradictive results for the effect of a change in disclosures on executive pay levels and structures and provide evidence for a change in compensation packages due to a reduction in disclosures. Third, I find evidence that is coherent with the managerial power approach and explain that executives change the composition of their compensation packages following their own interests, which has negative consequences for shareholders. Therefore, I provide a better explanation for the negative reactions of investors to regulations that diminish disclosures.

Furthermore, there are several limitations to this thesis. First, to create a more homogenous sample, the number of firms is significantly smaller in the pre-JOBS Act period in comparison to the post-JOBS period. Future research could expand the pre-JOBS Act period

and include several control variables or statistical techniques to control for any confounding macro-economic effects. Second, time fixed effects were not included in the multivariate analyses, because of the multicollinearity problem with the *EGC* variable. Therefore, I used a homogenous sample to control for time effects. In addition to the previous recommendation for future research, when examining the effect of the JOBS Act on executive compensation for an extended sample period, researchers should search for other variables that control for the variation in market conditions over time. Third, my sample did not allow for using a difference-in-difference analysis together with a PSM model because of the small number of matches this would create. Finally, I only examine the effect on a single year of executive compensation reported in the IPO prospectus due to a lack of executive compensation data about multiple years before the IPO. Moreover, due to time constraints and the lack of compensation data in databases commonly used for studies on executive compensation, I could not gather data for multiple firm-years. A more comprehensive analysis could take into account multiple firm-years, where not only the effect in the pre- and post-JOBS Act period is measured, but also the change in executive compensation within firms around their IPO. This setting allows for a more comprehensive analysis, where the change in executive compensation due to the JOBS Act between a treatment and control group can be measured over multiple firm-years around the IPO.

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Appendix A: Sample selection process and variable definitions

	Pre-JOBS Act	Post-JOBS Act
1 Database: Common Stock	n/a	n/a
2 Issue Type: IPO	85,181	85,185
3 Issuer/Borrower Nation (Code): United States of America	20,596	20,596
4 Dates: Issue Date (Pre-JOBS Act: 04/01/2010 – 31/03/2012; Post-JOBS Act: 04/01/2012 – 31/03/2016)	977	1,727
5 Dates: Filing Date (Pre-JOBS Act: 04/01/2010 – 31/03/2012; Post-JOBS Act: 04/01/2012 – 31/03/2016)	903	1,612
6 Transaction Status: Live	298	743
7 Issuer/Borrower Macro Industry (Code) [Exclude Financials]	207	571
8 Issuer/Borrower Mid Industry (Code) [Exclude REITs]	196	541
9 Limited Partnership Unit Flag (N)	183	494
10 Unit issues: Unit Issue Flag (N)	183	494
11 Original IPO Flag (Y)	183	494
12 Proceeds Amount This Market (5 Mil US\$ to HI)	150	448
13 Foreign Issue Flag (N)	150	448
14 Rights Issue Flag (N)	150	446
15 Manual exclusion of firms that have revenues >\$1B, no company ID codes, mismatch SEC Edgar, are exempted from filing to the SEC under Regulation D, do not contain a registration statement/IPO prospectus	122	366
Final Sample	122	366

This table presents the sample selection process. In the sample selection process, IPO data is retrieved from Thomson ONE. Thomson ONE is a database from Refinitiv (formerly Thomson Reuters). For the sample selection process of IPO firms, I used the study of Dambra, Field and Gustafson (2015) and Chaplinsky, Hanley and Moon (2017). In contrast to those studies, the Thomson ONE database is used instead of Thomson Reuters SDC, which is an online version that contains the same amount of data. In comparison to Dambra, Field and Gustafson (2015), the post-JOBS Act sample is expanded to four years, because out of the study of Chaplinsky, Hanley and Moon (2017) follows that the effect of de-burdening provisions is better measurable when the Act matures.

Variable	Definition and Source
<i>Variables of Interest</i>	
<i>EGC</i>	Dummy variable equal to 1 if the IPO firm is an EGC as mentioned on the front page of their IPO prospectus (SEC Form 424B#), and equal to 0 if the IPO firm is not an EGC firm. Put differently, post-JOBS Act period IPO firms ==1, and pre-JOBS Act period IPO firms ==0.
<i>PROVISION</i>	Dummy variable for the following provisions: (1) <i>CDAPROVISION</i> ==1 if firm applies the provision that allows for the omittance of the CD&A section, and ==0 if vice versa; (2) <i>LESS5NEOS</i> ==1 if firm does provide less than 5 named executive officers in the IPO prospectus, and ==0 if vice versa; (3) <i>BOTHPROV</i> ==1 if the IPO firms, applies both compensation related de-burdening provisions, and ==0 if vice versa. Data for this variable is retrieved from SEC Form 424B# or Form DEF14A
<i>NONSRC</i>	Dummy variable equal to 1 if the IPO firm is not SRC eligible according to Regulation S-K, and equal to 0 if otherwise. This is based on the revenue-test.

	Financial data is retrieved from Worldscope, Compustat Capital IQ, the IPO prospectus (SEC Form 424B#) or the annual report (SEC Form 10-K)
<i>CEO Compensation Data [dependent variables]</i>	
<i>LNSALARY</i>	Natural logarithm of the continuous variable indicating the salary provided to the CEO as reported in the SEC Form 424B#, Form DEF14A, or Form S-1 and Form S-1/A.
<i>LN Bonus</i>	Natural logarithm of the continuous variable indicating the bonus provided to the CEO as reported in the SEC Form 424B#, Form DEF14A, or Form S-1 and Form S-1/A.
<i>LNSTOCK</i>	Natural logarithm of the continuous variable indicating the stock options provided to the CEO as reported in the SEC Form 424B#, Form DEF14A, or Form S-1 and Form S-1/A.
<i>LNOPTIONS</i>	Natural logarithm of the continuous variable indicating the other options provided to the CEO as reported in the SEC Form 424B#, Form DEF14A, or Form S-1 and Form S-1/A.
<i>LNINCENTIVE</i>	Natural logarithm of the continuous variable indicating the non-Equity incentive-based pay provided to the CEO as reported in the SEC Form 424B#, Form DEF14A, or Form S-1 and Form S-1/A.
<i>LNOTHER</i>	Natural logarithm of the continuous variable indicating the other compensation provided to the CEO as reported in the SEC Form 424B#, Form DEF14A, or Form S-1 and Form S-1/A.
<i>LNTOTAL</i>	Natural logarithm of the continuous variable indicating the total compensation provided to the CEO as reported in the SEC Form 424B#, Form DEF14A, or Form S-1 and Form S-1/A.
<i>Information Asymmetry Data [dependent variable]</i>	
<i>UNDERPRICING</i>	Continuous variable indicating the amount of IPO underpricing, measured by subtracting the offer price from the closing divided by the offer price. Data is retrieved from Thomson ONE.
<i>CEO Characteristic Data</i>	
<i>AGE</i>	Variable indicating the CEO's age in years. CEO characteristics data is retrieved from the IPO Prospectus (SEC Form 424B#).
<i>TENURE</i>	Variable indicating the CEO's tenure in years. Tenure is computed by subtracting the CEO start date from the IPO issue date. This variable is represented in years. CEO characteristics data is retrieved from the IPO Prospectus (SEC Form 424B#).
<i>EDUCATION</i>	Categorical variable indicating the CEO's graduate level. Unknown== 0; undergraduate level== 1 (e.g. B.Sc./B.A.); postgraduate level== 2 (e.g. M.Sc./M.A./M.B.A.); doctoral level ==3 (e.g. Ph.D./M.D./J.D.). CEO characteristics data is retrieved from the IPO Prospectus (SEC Form 424B#).
<i>Financial/Performance Data</i>	
<i>REVENUE</i>	Revenues (in M\$) of the most recently completed fiscal year. Financial data is retrieved from Worldscope, Compustat Capital IQ, the IPO prospectus (SEC Form 424B#) or the annual report (SEC Form 10-K)
<i>RDX</i>	Ratio variable computed through dividing the research and development expenses of the most recently completed fiscal year by the total assets of the most recently completed fiscal year. Financial data is retrieved from Worldscope, Compustat Capital IQ, the IPO prospectus (SEC Form 424B#) or the annual report (SEC Form 10-K). Missing values are set by 0, as in the study of Chaplinsky, Hanley and Moon (2017).
<i>OET</i>	Ratio variable computed through dividing the total annual operating expenses of the most recently completed fiscal year by the total assets of the most recently completed fiscal year. Financial data is retrieved from Worldscope, Compustat Capital IQ, the IPO prospectus (SEC Form 424B#) or the annual report (SEC Form 10-K). Missing values are set by 0.

<i>LOSS</i>	Dummy variable indicating whether the company is operating at loss. Financial data is retrieved from Worldscope, Compustat Capital IQ, the IPO prospectus (SEC Form 424B#) or the annual report (SEC Form 10-K).
<i>CASH</i>	Ratio variable computed through dividing the total amount of cash of the most recently completed fiscal year by the total assets of the most recently completed fiscal year. Financial data is retrieved from Worldscope, Compustat Capital IQ, the IPO prospectus (SEC Form 424B#) or the annual report (SEC Form 10-K)
<i>PPE</i>	Ratio variable computed through dividing the property, plant and equipment (net) of the most recently completed fiscal year by the total assets of the most recently completed fiscal year. Financial data is retrieved from Worldscope, Compustat Capital IQ, the IPO prospectus (SEC Form 424B#) or the annual report (SEC Form 10-K). Missing values are set by 0, as in the study of Chaplinsky, Hanley and Moon (2017).
<i>LNASSETS</i>	Natural logarithm of total assets in the most recently completed fiscal year. When used in multivariate analyses, the natural logarithm of this variable is used, to control for outliers. Financial data is retrieved from Worldscope, Compustat Capital IQ, the IPO prospectus (SEC Form 424B#) or the annual report (SEC Form 10-K)
<i>LIABILITIES</i>	Liabilities (in M\$) of the most recently completed fiscal year. When used in multivariate analyses, the natural logarithm of this variable is used, to control for outliers. Financial data is retrieved from Worldscope, Compustat Capital IQ, the IPO prospectus (SEC Form 424B#) or the annual report (SEC Form 10-K)
<i>EQUITY</i>	EQUITY (in M\$) of the most recently completed fiscal year. When used in multivariate analyses, the natural logarithm of this variable is used, to control for outliers. Financial data is retrieved from Worldscope, Compustat Capital IQ, the IPO prospectus (SEC Form 424B#) or the annual report (SEC Form 10-K)
<i>ROA</i>	Net income of the most recently completed fiscal year divided by the total assets of the most recently completed fiscal year. Financial data is retrieved from Worldscope, Compustat Capital IQ, the IPO prospectus (SEC Form 424B#) or the annual report (SEC Form 10-K)
<i>LEVERAGE</i>	Total debt of the most recently completed fiscal year divided by the total assets of the most recently completed fiscal year. Financial data is retrieved from Worldscope, Compustat Capital IQ, the IPO prospectus (SEC Form 424B#) or the annual report (SEC Form 10-K).
<i>Compensation Provisions Data</i>	
<i>CD&A</i>	Dummy variable indicating whether a CD&A section is provided in the IPO prospectus (SEC Form 424B#).
<i>NEOS</i>	Continuous variable indicating the number of Named Executive Officers (NEO's) represented in the summary compensation table of the IPO prospectus (SEC Form 424B#)
<i>Governance Characteristics Data</i>	
<i>BOARD SIZE</i>	Continuous variable indicating the size of the board of directors, measured based on the number of directors mentioned in the 'management section' of the IPO prospectus (SEC Form 424B#).
<i>CHAIRMAN</i>	Dummy variable indicating whether the CEO is chairman of the board of directors. This governance data is retrieved from the IPO Prospectus (SEC Form 424B#).
<i>ANALYSTS</i>	Continuous variable indicating the number of analysts following the company. When no data found the number of analysts following is set to 0. The number of analyst following is retrieved from Refinitiv's IBES.

INSTOWNERS

Continuous variables indicating the ownership stake in a company held by large organizations as a percentage of the total amount of shares outstanding. This data is retrieved from Thomson Reuters Institutional (13f) Holdings

Appendix B: Methodology tables

Table 1B Panel A: Descriptive Statistics Full Sample

	<i>Pre-JOBS Act</i> (<i>n</i> = 122)					<i>Post-JOBS</i> (<i>n</i> = 366)					<i>Statistics</i> (<i>P</i> -values)	
	<i>Mean</i>	<i>Median</i>	<i>St. Dev.</i>	<i>Min.</i>	<i>Max.</i>	<i>Mean</i>	<i>Median</i>	<i>St. Dev.</i>	<i>Min.</i>	<i>Max.</i>	<i>Mean</i>	<i>Median</i>
<i>LNSALARY</i>	11.397	12.625	3.769	0	13.785	12.094	12.749	2.575	0	13.785	0.023**	0.130
<i>LN Bonus</i>	3.845	0	5.593	0	14.348	4.544	0	5.799	0	14.348	0.245	0.331
<i>LN Stock</i>	1.798	0	4.696	0	15.824	1.646	0	4.396	0	15.824	0.745	0.790
<i>LN Options</i>	5.582	0	6.67	0	15.899	5.68	0	6.601	0	15.899	0.887	0.968
<i>LN Incentive</i>	5.65	0	6.188	0	14.221	4.624	0	5.878	0	14.221	0.099*	0.054*
<i>LN Other</i>	6.87	9.02	4.649	0	14.481	5.865	8.045	4.827	0	14.481	0.045**	0.051*
<i>LN Total</i>	12.91	13.493	3.36	0	16.533	13.241	13.484	2.441	0	16.533	0.242	0.743
<i>UNDERPRICING</i>	7.688	0	16.084	0	92.31	21.891	11.915	28.734	0	147.06	0.000***	0.000***
<i>RDX</i>	3.025	.039	26.068	0	286	4.967	.074	30.959	0	286	0.533	0.114
<i>OET</i>	2.112	.881	7.953	0	72.835	3.452	.932	10.644	0	72.835	0.203	0.065*
<i>LOSS</i>	.607	1	.491	0	1	.754	1	.431	0	1	0.002***	0.002***
<i>LN ASSETS</i>	18.258	18.302	1.639	11.905	21.597	17.749	17.82	1.819	11.905	21.597	0.007***	0.001***
<i>CASH</i>	.267	.193	.238	0	.993	.405	.307	.334	0	.993	0.000***	0.000***
<i>PPE</i>	.293	.135	.337	0	1	.231	.091	.31	0	1	0.064**	0.007***
<i>LEVERAGE</i>	.953	.632	1.396	.025	10.365	1.096	.749	1.48	.025	10.365	0.348	0.061**
<i>ROA</i>	-.364	-.032	1.126	-10.078	.88	-.712	-.269	1.508	-10.078	.88	0.019**	0.000***
<i>AGE</i>	50.169	50	8.297	31	70	51.354	51.5	7.668	29	72	0.153	0.108
<i>TENURE</i>	5.856	5	5.282	0	34	5.643	4	7.377	0	114	0.771	0.402
<i>EDUCATION</i>	1.517	2	.94	0	3	1.778	2	1.026	0	3	0.015**	0.012**
<i>CHAIRMAN</i>	.364	0	.483	0	1	.312	0	.464	0	1	0.294	0.294
<i>BOARDSIZE</i>	8.513	8	3.228	3	18	7.822	8	3.148	2	20	0.040**	0.019**
<i>ANALYSTS</i>	2.68	2	2.46	0	8	3.268	3	2.417	0	13	0.021	0.058*
<i>INSTOWNERS</i>	.265	.247	.256	0	1.398	.327	.275	.314	0	1.398	0.048**	0.081*
<i>CD&A</i>	.926	1	.262	0	1	.027	0	.163	0	1	0.000***	0.000***
<i>NEOS</i>	5.034	5	1.247	1	9	3.273	3	.855	0	7	0.000***	0.000***

This table presents the descriptive statistics including univariate results of the independent samples t-test for the Full Sample. Continuous variables are winsorized at the top and bottom 1%. Variable definitions and sources are provided in Table 2A.

*, **, *** Indicate significance at the 0.10, 0.05, and 0.01 levels, respectively (based on two-tailed tests).

Table 1B Panel B: Descriptive Statistics SRC Sample

	<i>Pre-JOBS Act</i> (<i>n = 48</i>)					<i>Post-JOBS</i> (<i>n = 198</i>)					<i>Statistics</i> (<i>P-values</i>)	
	<i>Mean</i>	<i>Median</i>	<i>St. Dev.</i>	<i>Min.</i>	<i>Max.</i>	<i>Mean</i>	<i>Median</i>	<i>St. Dev.</i>	<i>Min.</i>	<i>Max.</i>	<i>Mean</i>	<i>Median</i>
<i>LNSALARY</i>	10.367	12.591	4.709	0	13.199	11.85	12.722	2.8	0	13.171	0.005***	0.114
<i>LN Bonus</i>	3.712	0	5.618	0	13.911	3.945	0	5.551	0	14.348	0.795	0.912
<i>LN Stock</i>	.832	0	3.294	0	15.362	1.629	0	4.244	0	15.824	0.226	0.201
<i>LN Options</i>	6.971	11.408	6.553	0	14.775	6.506	8.877	6.482	0	15.899	0.656	0.628
<i>LN Incentive</i>	3.945	0	5.661	0	13.847	3.385	0	5.291	0	12.766	0.517	0.540
<i>LN Other</i>	5.514	6.948	4.825	0	13.459	5.166	6.832	4.743	0	13.277	0.649	0.640
<i>LNTotal</i>	12.091	13.377	4.278	0	15.39	12.968	13.266	2.491	0	16.533	0.063*	0.965
<i>UNDERPRICING</i>	4.225	0	12.189	0	78.85	21.891	9.3	31.728	0	147.06	0.000***	0.000***
<i>RDX</i>	7.563	.078	41.409	0	286	9.085	.165	41.697	0	286	0.821	0.335
<i>OET</i>	4.024	.865	12.512	0	72.835	5.573	1.076	14.142	0	72.835	0.487	0.272
<i>LOSS</i>	.896	1	.309	0	1	.929	1	.257	0	1	0.438	0.437
<i>LN Assets</i>	17.155	17.323	1.693	11.905	21.249	16.625	16.855	1.493	11.905	20.857	0.033**	0.012**
<i>CASH</i>	.382	.398	.276	0	.925	.574	.65	.33	0	.993	0.000***	0.000***
<i>PPE</i>	.384	.156	.403	0	1	.222	.051	.343	0	1	0.005***	0.001***
<i>LEVERAGE</i>	1.352	.626	2.123	.025	10.365	1.348	.74	1.942	.025	10.365	0.991	0.393
<i>ROA</i>	-.925	-.525	1.619	-10.078	.18	-1.253	-.637	1.877	-10.078	.88	0.267	0.083*
<i>AGE</i>	51.156	51	8.926	35	70	52.52	53	6.831	36	71	0.257	0.161
<i>TENURE</i>	5.244	4	4.73	0	18	4.383	3	3.926	0	16	0.203	0.381
<i>EDUCATION</i>	1.689	2	.996	0	3	2.147	2	.928	0	3	0.004***	0.004***
<i>CHAIRMAN</i>	.356	0	.484	0	1	.259	0	.439	0	1	0.193	0.192
<i>BOARDSIZE</i>	7.783	8	3.438	3	16	7.434	7	3.088	2	15	0.501	0.333
<i>ANALYSTS</i>	1.979	1	2.129	0	7	2.485	3	1.788	0	13	0.092*	0.074*
<i>INSTOWNERS</i>	.189	.182	.192	0	.553	.275	.251	.265	0	1.398	0.035**	0.046**
<i>CD&A</i>	.896	1	.309	0	1	.02	0	.141	0	1	0.000***	0.000***
<i>NEOS</i>	4.717	5	1.501	1	9	3.258	3	.895	0	7	0.000***	0.000***

This table presents the descriptive statistics including univariate results of the independent samples t-test for the SRC Sample. Continuous variables are winsorized at the top and bottom 1%. Variable definitions and sources are provided in Table 2A.

*, **, *** Indicate significance at the 0.10, 0.05, and 0.01 levels, respectively (based on two-tailed tests).

Table 1B Panel C: Descriptive statistics of the non-SRC sample

	<i>Pre-JOBS Act</i> (<i>n</i> = 74)					<i>Post-JOBS</i> (<i>n</i> =168)					<i>Statistics</i> (<i>P-values</i>)	
	<i>Mean</i>	<i>Median</i>	<i>St. Dev.</i>	<i>Min.</i>	<i>Max.</i>	<i>Mean</i>	<i>Median</i>	<i>St. Dev.</i>	<i>Min.</i>	<i>Max.</i>	<i>Mean</i>	<i>Median</i>
<i>LNSALARY</i>	12.065	12.692	2.849	0	13.785	12.381	12.794	2.255	0	13.785	0.356	0.114
<i>LN Bonus</i>	3.931	0	5.613	0	14.348	5.251	0	6.018	0	14.348	0.111	0.112
<i>LN STOCK</i>	2.425	0	5.343	0	15.824	1.666	0	4.581	0	15.824	0.261	0.261
<i>LN OPTIONS</i>	4.681	0	6.634	0	15.899	4.708	0	6.628	0	15.899	0.977	0.937
<i>LN INCENTIVE</i>	6.756	11.391	6.3	0	14.221	6.085	0	6.207	0	14.221	0.442	0.339
<i>LN OTHER</i>	7.749	9.354	4.34	0	14.481	6.688	8.942	4.81	0	14.481	0.105	0.172
<i>LN TOTAL</i>	13.442	13.532	2.489	0	16.533	13.561	13.703	2.346	0	16.533	0.720	0.547
<i>UNDERPRICING</i>	9.934	0	17.892	0	92.31	21.891	15	24.84	0	119.785	0.000***	0.000***
<i>RDX</i>	.082	.039	.107	0	.592	.113	.046	.15	0	.839	0.110	0.301
<i>OET</i>	.872	.881	.266	0	1.803	.953	.915	.318	0	2.353	0.057*	0.017**
<i>LOSS</i>	.419	0	.497	0	1	.548	1	.499	0	1	0.066*	0.066*
<i>LN ASSETS</i>	18.973	18.861	1.136	16.118	21.597	19.074	18.728	1.157	17.029	21.597	0.531	0.765
<i>CASH</i>	.193	.152	.175	0	.993	.206	.156	.203	0	.993	0.633	0.887
<i>PPE</i>	.234	.133	.273	.003	1	.243	.126	.267	0	1	0.808	0.782
<i>LEVERAGE</i>	.694	.646	.395	.025	2.494	.799	.755	.417	.121	2.642	0.068*	0.033**
<i>ROA</i>	0	.021	.271	-1.206	.88	-.075	-.015	.25	-1.238	.88	0.037**	0.006***
<i>AGE</i>	49.562	49	7.886	31	65	49.994	50	8.358	29	72	0.708	0.814
<i>TENURE</i>	6.233	5	5.594	0	34	7.113	6	9.811	0	114	0.474	0.574
<i>EDUCATION</i>	1.411	2	.895	0	3	1.345	1	.966	0	3	0.621	0.523
<i>CHAIRMAN</i>	.37	0	.486	0	1	.375	0	.486	0	1	0.940	0.940
<i>BOARDSIZE</i>	8.973	9	3.023	6	18	8.28	8	3.166	5	20	0.115	0.085*
<i>ANALYSTS</i>	3.135	3.5	2.566	0	8	4.19	5	2.723	0	13	0.005***	0.017**
<i>INST OWNERS</i>	.314	.299	.28	0	1.398	.389	.311	.355	0	1.398	0.110	0.210
<i>CD&A</i>	.946	1	.228	0	1	.036	0	.186	0	1	0.000***	0.000***
<i>NEOS</i>	5.236	5	1.014	2	8	3.292	3	.807	0	7	0.000***	0.000***

This table presents the descriptive statistics including univariate results of the independent samples t-test for the non-SRC Sample. Continuous variables are winsorized at the top and bottom 1%. Variable definitions and sources are provided in Table 2A.

*, **, *** Indicate significance at the 0.10, 0.05, and 0.01 levels, respectively (based on two-tailed tests).

Table 2B: Descriptive statistics. Mean and median differences between the SRC and non-SRC sample including significance levels.

	<i>SRC Sample</i> (<i>n</i> = 246)		<i>Non-SRC Sample</i> (<i>n</i> = 242)		<i>Statistics</i> (<i>P-values</i>)	
	<i>Mean</i>	<i>Median</i>	<i>Mean</i>	<i>Median</i>	<i>Mean</i>	<i>Median</i>
<i>LNSALARY</i>	11.561	12.675	12.284	12.75	0.007***	0.000***
<i>LN Bonus</i>	3.899	0	4.847	0	0.069*	0.033**
<i>LN STOCK</i>	1.474	0	1.898	0	0.294	0.382
<i>LN OPTIONS</i>	6.597	9.563	4.700	0	0.002***	0.033**
<i>LN INCENTIVE</i>	3.494	0	6.290	10.294	0.000***	0.000***
<i>LN OTHER</i>	5.234	6.887	7.013	9.105	0.000***	0.000***
<i>LN TOTAL</i>	12.797	13.277	13.525	13.654	0.003***	0.000***
<i>UNDERPRICING</i>	18.444	6.575	18.235	9.57	0.931	0.310
<i>RDX</i>	8.788	.156	.104	.046	0.001***	0.000***
<i>OET</i>	5.271	.970	.929	.903	0.000***	0.731
<i>LOSS</i>	.923	1	.508	1	0.000***	0.000***
<i>LN ASSETS</i>	16.728	16.943	19.043	18.772	0.000***	0.000***
<i>CASH</i>	.537	.582	.202	.156	0.000***	0.000***
<i>PPE</i>	.253	.071	.240	.131	0.656	0.000***
<i>LEVERAGE</i>	1.349	.735	.767	.723	0.000***	0.902
<i>ROA</i>	-1.189	-.622	-.052	-.004	0.000***	0.000***
<i>AGE</i>	52.266	52	49.863	50	0.001***	0.001***
<i>TENURE</i>	4.544	4	6.846	6	0.000***	0.000***
<i>EDUCATION</i>	2.062	2	1.365	1	0.000***	0.000***
<i>CHAIRMAN</i>	.277	0	.373	0	0.024**	0.024**
<i>BOARDSIZE</i>	7.5	7.5	8.49	8	0.001***	0.002***
<i>ANALYSTS</i>	2.386	3	3.868	4	0.000***	0.000***
<i>INST OWNERS</i>	.258	.237	.366	.302	0.000***	0.001***
<i>CD&A</i>	.191	0	.314	0	0.002***	0.002***
<i>NEOS</i>	3.533	3	3.875	3	0.002***	0.003***

This table presents the univariate results of the mean differences between the SRC and the non-SRC sample. Continuous variables are winsorized at the top and bottom 1%. Variable definitions and sources are provided in Table 2 Appendix A. *, **, *** Indicate significance at the 0.10, 0.05, and 0.01 levels, respectively (based on two-tailed tests).

Table 3B: Correlation matrix [1/12]

	1	2	3	4	5	6	7	8	9	10	11	12
1 EGC	1											
2 NONSRC	-0.136**	1										
3 LNSALARY	0.034	-0.129**	1									
4 LNBONUS	0.037	-0.081	0.170***	1								
5 LNSTOCK	-0.023	-0.045	0.022	-0.007	1							
6 LNOPTIONS	-0.015	0.145**	0.139**	0.028	-0.085	1						
7 LNINCENTIVE	-0.089	-0.239***	0.219***	-0.313***	0.020	0.071	1					
8 LNOTHER	-0.116*	-0.190***	0.201***	0.148**	0.059	-0.018	0.068	1				
9 LNTOTAL	-0.042	-0.145**	0.705***	0.191**	0.200***	0.344**	0.206***	0.275***	1			
10 UNDERPRICING	0.226***	0.009	-0.004	0.012	-0.021	0.054	-0.012	-0.026	-0.052	1		
11 RDX/REVT	0.016	0.142**	0.032	0.039	-0.042	0.068	-0.082	-0.041	0.004	-0.040	1	
12 OET/REVT	0.053	0.221***	0.048	-0.017	-0.035	0.099*	-0.059	-0.077	0.011	0.012	0.662***	1
13 LOSS	0.126**	0.464***	-0.032	-0.068	-0.056	0.188***	-0.052	-0.177***	-0.069	0.056	0.090	0.145**
14 LNAT	-0.144**	-0.653***	0.120**	0.154***	0.054	0.009	0.205***	0.214***	0.174***	0.000	-0.147**	-0.154***
15 CASH/AT	0.188***	0.543***	-0.005	-0.003	-0.012	0.155***	-0.117*	-0.155***	-0.034	0.101*	0.100*	0.112*
16 PPE/AT	-0.049	0.014	-0.126**	0.042	0.070	-0.164***	-0.124**	-0.016	-0.136**	-0.110*	0.000	-0.078
17 LEVERAGE	0.047	0.200***	-0.063	-0.086	0.031	-0.107*	-0.125**	-0.070	-0.030	-0.095*	0.163***	0.144**
18 ROA	-0.098*	-0.399***	0.012	0.088	0.043	0.028	0.159***	0.074	0.065	0.059	-0.234***	-0.281***
19 AGE	0.075	0.155***	0.038	-0.025	-0.025	-0.006	-0.004	0.079	0.008	-0.087	0.029	0.029
20 TENURE	-0.009	-0.163***	0.081	-0.039	-0.057	-0.014	0.057	0.021	0.033	0.045	-0.024	-0.024
21 EDUCATION	0.106*	0.349***	0.137**	0.063	0.018	0.180***	-0.105*	0.023	0.095*	0.019	0.054	0.094*
22 CHAIRMAN	-0.053	-0.102*	-0.093*	0.082	0.016	-0.021	-0.093*	-0.035	-0.084	0.019	0.018	0.005
23 BOARDSIZE	-0.098*	-0.153***	0.205***	0.027	0.036	0.158***	0.210***	0.115*	0.213***	0.027	-0.028	0.008
24 ANALYSTS	0.089	-0.305***	0.121**	0.074	-0.001	0.070	0.149**	0.035	0.095*	0.062	-0.039	-0.073
25 INSTOWNERS	0.073	-0.180***	0.077	0.016	-0.047	0.034	0.026	0.034	0.079	0.113*	-0.065	-0.039
26 C&DA	-0.904***	0.159***	0.003	-0.022	0.017	0.000	0.097*	0.116*	0.081	-0.196***	-0.018	-0.056
27 NEOS	-0.628***	0.143**	0.037	-0.029	0.066	0.057	0.114*	0.109*	0.100*	-0.097*	-0.090*	-0.090*

*, **, *** Indicate significance at the 0.10, 0.05, and 0.01 levels, respectively (based on two-tailed tests).

Table 3B: Correlation matrix continued [13/24]

	13	14	15	16	17	18	19	20	21	22	23	24
[...]												
13 LOSS	1											
14 LNAT	-0.353***	1										
15 CASH/AT	0.388***	-0.481***	1									
16 PPE/AT	-0.053	0.023	-0.176***	1								
17 LEVERAGE	0.131**	-0.484***	0.028	-0.012	1							
18 ROA	-0.329***	0.625***	-0.252***	0.062	-0.641***	1						
19 AGE	-0.057	-0.072	-0.017	0.033	0.021	-0.042	1					
20 TENURE	-0.086	0.089	-0.112*	-0.083	-0.045	0.091*	0.003	1				
21 EDUCATION	0.188***	-0.274***	0.396***	-0.147**	0.048	-0.168***	0.099*	0.011	1			
22 CHAIRMAN	-0.002	0.060	-0.047	-0.006	-0.020	0.033	0.049	0.145**	-0.058	1		
23 BOARDSIZE	0.013	0.279***	-0.07	-0.129**	-0.169***	0.178***	0.040	0.052	-0.091*	-0.058	1	
26 ANALYSTS	-0.072	0.359***	-0.152***	-0.015	-0.172***	0.174***	-0.140**	0.025	-0.052	0.052	0.117*	1
27 INSTOWNERS	-0.124**	0.242***	-0.107*	-0.053	-0.119**	0.100*	0.015	0.035	-0.047	-0.012	0.069	0.332***
28 C&DA	-0.127**	0.166***	-0.184***	0.051	-0.067	0.121**	-0.095*	0.009	-0.105*	0.032	0.146**	-0.041
29 NEOS	-0.099*	0.146**	-0.146**	-0.022	-0.075	0.114*	-0.089	-0.035	-0.075	0.039	0.201***	-0.007

*, **, *** Indicate significance at the 0.10, 0.05, and 0.01 levels, respectively (based on two-tailed tests).

Table 3B: Correlation matrix continued [25/27]

	25	26	27
[...]			
24 ANALYSTS			
25 INSTOWNERS	1		
26 C&DA	-0.025	1	
27 NEOS	-0.014	0.626***	1

This table presents the correlation matrix for the different variables used in the multivariate analyses.

*, **, *** Indicate significance at the 0.10, 0.05, and 0.01 levels, respectively (based on two-tailed tests).

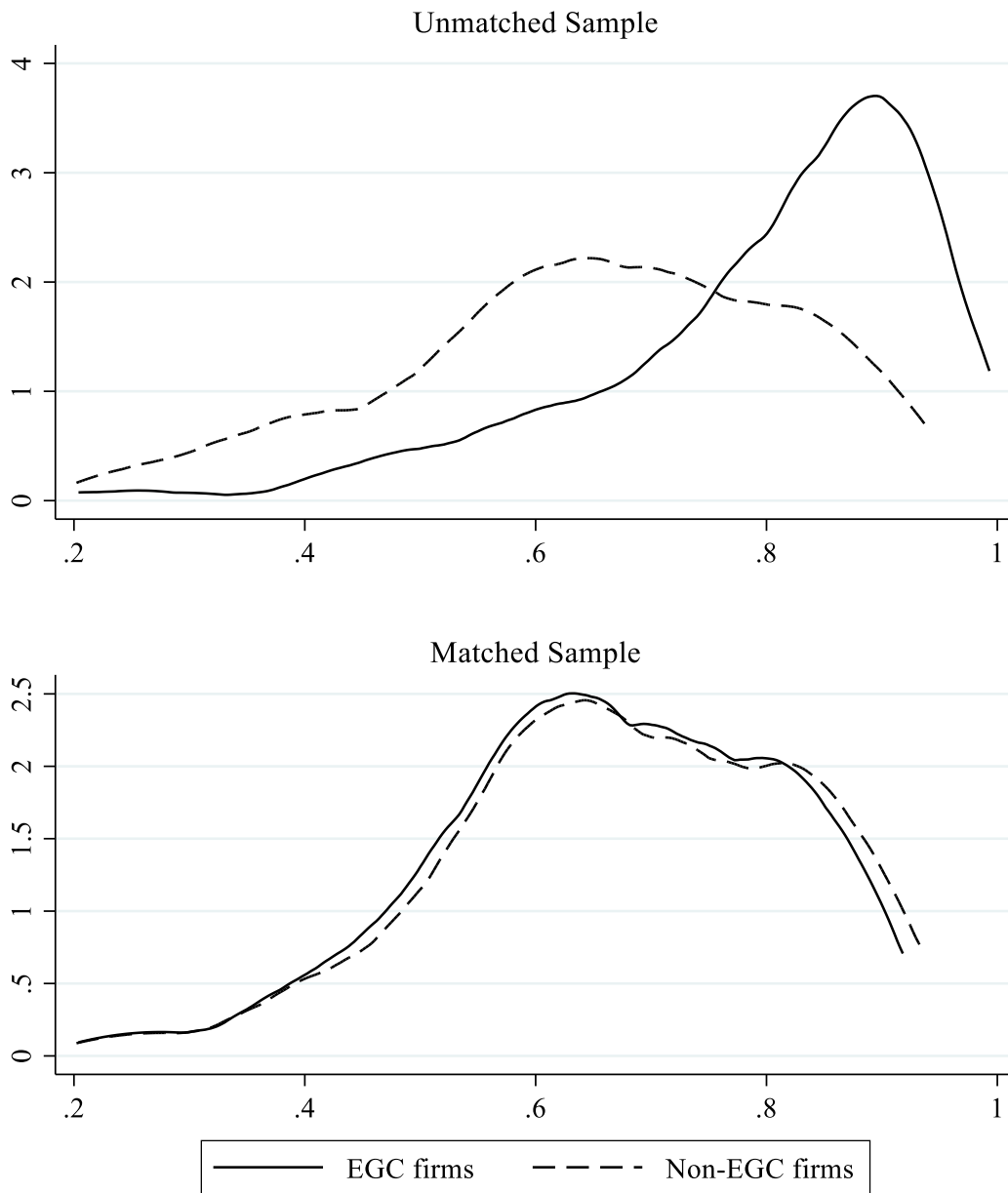


Figure 1B: Two-way Kernel graph of the unmatched and matched sample for hypothesis 1 and 2 using the propensity score matching model without replacement (caliper 0.02).

Appendix C: Results tables

Table 1C: OLS regression results of hypothesis 1				
Panel A: Unmatched sample results				
<i>UNDERPRICING</i>	(1)	(2)	(3)	(4)
<i>EGC</i>	13.806*** (4.286)			
<i>CDAPROVISION</i>		12.617*** (4.015)		
<i>LESS5NEOS</i>			9.372*** (2.970)	
<i>BOTHPROV</i>				9.925*** (3.371)
<i>LNASSETS</i>	-1.145 (-0.923)	-1.321 (-1.065)	-1.449 (-1.159)	-1.560 (-1.253)
<i>RDX</i>	-0.052 (-0.868)	-0.053 (-0.873)	-0.066 (-1.080)	-0.062 (-1.016)
<i>OET</i>	0.155 (0.924)	0.153 (0.906)	0.170 (1.004)	0.180 (1.061)
<i>CASH</i>	7.041 (1.291)	7.002 (1.280)	7.921 (1.438)	7.683 (1.398)
<i>PPE</i>	-6.175 (-1.305)	-6.111 (-1.288)	-7.185 (-1.503)	-6.553 (-1.374)
<i>LOSS</i>	3.038 (0.872)	3.019 (0.863)	3.597 (1.022)	3.082 (0.875)
<i>LEVERAGE</i>	-1.435 (-1.233)	-1.472 (-1.262)	-1.114 (-0.940)	-1.177 (-1.000)
<i>ROA</i>	0.956 (0.710)	1.003 (0.743)	1.243 (0.913)	1.250 (0.920)
<i>CHAIRMAN</i>	0.310 (0.110)	0.413 (0.147)	0.615 (0.217)	0.455 (0.161)
<i>BOARDSIZE</i>	0.207 (0.474)	0.217 (0.497)	0.262 (0.589)	0.244 (0.553)
<i>ANALYSTS</i>	-0.094 (-0.157)	-0.089 (-0.148)	0.022 (0.037)	-0.041 (-0.068)
<i>INSTOWNERS</i>	10.792** (2.381)	11.282** (2.485)	11.339** (2.476)	11.621** (2.546)
<i>AGE</i>	-0.153 (-0.877)	-0.162 (-0.924)	-0.174 (-0.980)	-0.150 (-0.850)
<i>TENURE</i>	0.155 (0.830)	0.161 (0.856)	0.159 (0.837)	0.165 (0.873)
<i>EDUCATION</i>	-0.340 (-0.225)	-0.418 (-0.275)	-0.181 (-0.118)	-0.385 (-0.252)
<i>CONSTANT</i>	28.895 (0.744)	19.000 (0.528)	21.940 (0.604)	23.782 (0.659)
<i>INDUSTRYFE</i>	Y	Y	Y	Y
<i>Observations (N)</i>	481	481	481	481
<i>Adjusted R²</i>	0.159	0.155	0.141	0.146

Table 1C: OLS regression results of hypothesis 1 (continued)

Panel B: Matched sample results				
<i>UNDERPRICING</i>	(1)	(2)	(3)	(4)
<i>EGC</i>	13.155*** (3.751)			
<i>CDAPROVISION</i>		12.865*** (3.647)		
<i>LESS5NEOS</i>			9.913*** (2.693)	
<i>BOTHPROV</i>				11.293*** (3.167)
<i>LNASSETS</i>	-1.082 (-0.575)	-1.035 (-0.548)	-0.889 (-0.450)	-1.235 (-0.649)
<i>RDX</i>	-0.124* (-1.685)	-0.124* (-1.682)	-0.035 (-0.410)	-0.123 (-1.649)
<i>OET</i>	0.711** (2.143)	0.709** (2.133)	2.424*** (4.404)	0.720** (2.144)
<i>CASH</i>	9.800 (1.003)	10.021 (1.023)	10.160 (0.975)	9.212 (0.932)
<i>PPE</i>	-1.186 (-0.164)	-1.211 (-0.167)	2.419 (0.304)	-1.236 (-0.168)
<i>LOSS</i>	3.643 (0.820)	3.333 (0.748)	1.932 (0.412)	3.094 (0.687)
<i>LEVERAGE</i>	-1.448 (-0.775)	-1.413 (-0.754)	-1.776 (-0.912)	-1.388 (-0.734)
<i>ROA</i>	1.013 (0.426)	1.021 (0.428)	-0.172 (-0.065)	1.020 (0.424)
<i>CHAIRMAN</i>	-4.868 (-1.223)	-4.745 (-1.188)	-3.611 (-0.860)	-5.268 (-1.310)
<i>BOARDSIZE</i>	0.200 (0.340)	0.194 (0.329)	-0.291 (-0.446)	0.266 (0.447)
<i>ANALYSTS</i>	-0.239 (-0.331)	-0.228 (-0.316)	-0.257 (-0.339)	-0.296 (-0.405)
<i>INSTOWNERS</i>	1.592 (0.217)	0.815 (0.111)	3.419 (0.457)	0.519 (0.070)
<i>AGE</i>	-0.368 (-1.563)	-0.382 (-1.620)	-0.231 (-0.890)	-0.398* (-1.673)
<i>TENURE</i>	0.171 (0.426)	0.158 (0.392)	0.403 (0.969)	0.247 (0.607)
<i>EDUCATION</i>	-2.317 (-1.161)	-2.389 (-1.195)	-1.722 (-0.816)	-2.207 (-1.092)
<i>CONSTANT</i>	37.663 (0.862)	37.669 (0.860)	30.467 (0.678)	41.513 (0.940)
<i>INDUSTRYFE</i>	Y	Y	Y	Y
<i>Observations (N)</i>	188	188	188	188
<i>Adjusted R²</i>	0.214	0.210	0.262	0.195

This table presents the comprehensive multivariate results the first hypothesis. of Panel A presents the basic OLS regression statistics of equation (1) and equation (2). Panel B presents the PSM regression statistics of equation (1) and equation (2). For Panel B, I used the PSM model without replacement (caliper 0.02). Industry fixed effects (*INDUSTRYFE*) (Y/N) are based on two-digit SIC codes and included to control for the confounding effects resulting from systematic differences across industries Control variables are added to correct for other confounding effects. Continuous variables are winsorized at 1% and 99%.

*, **, *** Indicate significance at the 0.10, 0.05, and 0.01 levels, respectively (t-statistics in parentheses).

Table 2C: OLS regression results of hypothesis 2

Panel A: Unmatched sample results							
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
<i>EGC</i>	-0.042 (-0.161)	0.555* (1.884)	0.929 (1.340)	-0.216 (-0.396)	-0.918 (-1.200)	-0.580 (-0.843)	-0.736 (-1.310)
<i>LNASSETS</i>	0.392*** (3.847)	0.433*** (3.817)	0.773*** (2.893)	0.275 (1.310)	-0.094 (-0.320)	0.336 (1.266)	0.803*** (3.710)
<i>RDX</i>	0.002 (0.355)	0.002 (0.405)	0.020 (1.541)	-0.009 (-0.899)	0.009 (0.648)	-0.010 (-0.790)	0.007 (0.662)
<i>OET</i>	-0.003 (-0.249)	0.002 (0.127)	-0.037 (-1.026)	0.010 (0.338)	0.036 (0.897)	0.004 (0.120)	-0.055* (-1.892)
<i>CASH</i>	-0.210 (-0.468)	-0.639 (-1.281)	0.328 (0.279)	0.846 (0.916)	0.389 (0.300)	-0.473 (-0.406)	-1.286 (-1.350)
<i>PPE</i>	-0.106 (-0.272)	0.280 (0.648)	0.711 (0.698)	1.655** (2.065)	-2.508** (-2.231)	-1.805* (-1.786)	0.382 (0.462)
<i>LOSS</i>	-0.064 (-0.224)	-0.169 (-0.530)	-0.729 (-0.971)	-0.619 (-1.049)	2.440*** (2.947)	0.542 (0.728)	-1.049* (-1.725)
<i>LEVERAGE</i>	0.103 (1.078)	-0.067 (-0.634)	-0.007 (-0.030)	0.391** (1.986)	-0.317 (-1.149)	-0.138 (-0.556)	-0.115 (-0.569)
<i>ROA</i>	-0.054 (-0.484)	-0.241* (-1.952)	-0.069 (-0.239)	0.150 (0.657)	0.447 (1.395)	0.081 (0.282)	-0.572** (-2.432)
<i>CHAIRMAN</i>	-0.176 (-0.762)	-0.381 (-1.486)	1.234** (2.043)	0.074 (0.156)	0.095 (0.142)	-1.393** (-2.324)	-0.113 (-0.231)
<i>BOARDSIZE</i>	0.084** (2.339)	0.080** (1.997)	0.036 (0.383)	0.018 (0.245)	0.264** (2.553)	0.212** (2.275)	0.142* (1.867)
<i>ANALYSTS</i>	0.014 (0.293)	0.090 (1.641)	-0.029 (-0.225)	-0.027 (-0.268)	0.230 (1.621)	0.294** (2.307)	-0.059 (-0.570)
<i>INSTOWNERS</i>	0.221 (0.594)	-0.017 (-0.041)	-1.130 (-1.158)	-0.826 (-1.077)	1.244 (1.155)	-0.793 (-0.819)	-0.479 (-0.605)
<i>AGE</i>	-0.010 (-0.705)	0.009 (0.570)	-0.052 (-1.380)	-0.003 (-0.112)	0.007 (0.165)	0.048 (1.275)	0.010 (0.313)
<i>TENURE</i>	-0.011 (-0.697)	0.014 (0.795)	-0.050 (-1.239)	-0.050 (-1.591)	-0.017 (-0.382)	0.018 (0.442)	-0.006 (-0.171)
<i>EDUCATION</i>	0.237* (1.903)	0.188 (1.354)	0.435 (1.335)	0.268 (1.046)	0.769** (2.138)	-0.527 (-1.630)	0.444* (1.680)
<i>CONSTANT</i>	5.751* (1.803)	1.862 (0.524)	-12.735 (-1.523)	-4.597 (-0.699)	-5.035 (-0.546)	1.505 (0.181)	-5.939 (-0.876)
<i>INDUSTRYFE</i>	Y	Y	Y	Y	Y	Y	Y
<i>Observations (N)</i>	481	481	481	481	481	481	481
<i>Adjusted R²</i>	0.305	0.319	0.146	0.131	0.212	0.218	0.189
Panel B: Matched sample results							
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
<i>EGC</i>	-0.304 (-1.208)	0.550 (1.443)	0.195 (0.229)	-1.207* (-1.686)	-1.327 (-1.360)	-0.001 (-0.001)	-1.070 (-1.507)
<i>LNASSETS</i>	0.262* (1.940)	0.420** (2.051)	0.832* (1.819)	0.567 (1.475)	-0.148 (-0.282)	-0.026 (-0.054)	0.475 (1.247)
<i>RDX</i>	0.000 (0.060)	0.000 (0.021)	0.008 (0.463)	-0.008 (-0.500)	-0.009 (-0.428)	-0.012 (-0.630)	-0.023 (-1.548)
<i>OET</i>	0.012 (0.491)	0.021 (0.588)	-0.034 (-0.421)	0.062 (0.911)	0.060 (0.653)	-0.028 (-0.324)	0.040 (0.598)
<i>CASH</i>	0.094 (0.134)	-0.577 (-0.543)	-1.022 (-0.430)	-0.792 (-0.397)	0.221 (0.081)	1.590 (0.634)	-2.129 (-1.077)
<i>PPE</i>	0.841 (1.615)	0.627 (0.796)	1.423 (0.807)	2.740* (1.851)	0.805 (0.399)	-2.243 (-1.205)	0.292 (0.199)

Table 2C: (Panel B) OLS regression results of hypothesis 2 continued

<i>LOSS</i>	0.034 (0.105)	0.030 (0.061)	-0.292 (-0.270)	-0.580 (-0.639)	2.849** (2.304)	0.788 (0.691)	-1.505* (-1.675)
<i>LEVERAGE</i>	0.312** (2.324)	-0.251 (-1.233)	0.108 (0.238)	0.934** (2.447)	-0.509 (-0.977)	-0.197 (-0.410)	0.126 (0.333)
<i>ROA</i>	0.085 (0.498)	-0.415 (-1.607)	0.043 (0.074)	0.510 (1.050)	-0.126 (-0.191)	0.539 (0.882)	-0.562 (-1.167)
<i>CHAIRMAN</i>	-0.242 (-0.849)	-0.217 (-0.503)	0.915 (0.946)	-0.914 (-1.124)	-0.150 (-0.136)	-0.611 (-0.598)	-0.313 (-0.389)
<i>BOARDSIZE</i>	0.158*** (3.732)	0.104 (1.631)	0.050 (0.350)	0.138 (1.151)	0.338** (2.060)	0.172 (1.138)	0.343*** (2.884)
<i>ANALYSTS</i>	0.005 (0.098)	0.112 (1.432)	-0.211 (-1.200)	-0.165 (-1.119)	0.431** (2.144)	0.217 (1.173)	0.014 (0.095)
<i>INSTOWNERS</i>	-0.261 (-0.494)	-0.173 (-0.217)	-2.854 (-1.597)	-1.425 (-0.950)	1.188 (0.581)	-0.816 (-0.432)	-1.639 (-1.102)
<i>AGE</i>	0.005 (0.274)	0.040 (1.561)	-0.008 (-0.147)	-0.017 (-0.358)	0.105 (1.598)	0.051 (0.842)	0.043 (0.900)
<i>TENURE</i>	0.012 (0.429)	0.041 (0.929)	-0.256*** (-2.618)	-0.105 (-1.281)	0.081 (0.728)	0.090 (0.875)	0.039 (0.474)
<i>EDUCATION</i>	-0.069 (-0.483)	-0.027 (-0.123)	0.474 (0.978)	0.356 (0.874)	0.114 (0.205)	-0.841 (-1.642)	0.388 (0.960)
<i>CONSTANT</i>	8.057** (2.569)	1.889 (0.398)	-15.174 (-1.429)	-11.626 (-1.303)	7.259 (0.597)	9.230 (0.823)	-14.230 (-1.610)
<i>INDUSTRYFE</i>	Y	Y	Y	Y	Y	Y	Y
<i>Observations (N)</i>	188	188	188	188	188	188	188
<i>Adjusted R²</i>	0.222	0.216	0.212	0.184	0.231	0.226	0.194

This table presents the comprehensive multivariate results of the second hypothesis. The different columns represent the same dependent variables as in Table 6. Panel A presents the basic OLS regression statistics of equation (1). Panel B presents the PSM regression statistics of equation (1). For Panel B, I used the PSM model without replacement (caliper 0.02). Industry fixed effects (*INDUSTRYFE*) (Y/N) are based on two-digit SIC codes and included to control for the confounding effects resulting from systematic differences across industries. Control variables are added to correct for other confounding effects. Continuous variables are winsorized at 1% and 99%.

*, **, *** Indicate significance at the 0.10, 0.05, and 0.01 levels, respectively (t-statistics in parentheses).

Table 3C: OLS regression results compensation ratios

	Unmatched Sample		Matched Sample	
	(1)	(2)	(3)	(4)
<i>EGC</i>	0.065** (2.263)	-0.058* (-1.930)	0.096*** (2.969)	-0.073* (-1.736)
<i>LNASSETS</i>	-0.010 (-0.852)	0.015 (1.289)	0.004 (0.209)	0.014 (0.600)
<i>RDX</i>	0.000 (0.351)	-0.000 (-0.335)	0.000 (0.343)	-0.000 (-0.562)
<i>OET</i>	-0.000 (-0.309)	0.001 (0.391)	-0.004 (-1.279)	0.003 (0.746)
<i>CASH</i>	-0.030 (-0.607)	0.028 (0.536)	0.056 (0.617)	0.076 (0.650)
<i>PPE</i>	0.080* (1.870)	-0.066 (-1.479)	0.026 (0.390)	0.033 (0.377)
<i>LOSS</i>	-0.032 (-1.013)	0.051 (1.538)	-0.013 (-0.323)	0.052 (0.973)
<i>LEVERAGE</i>	-0.021** (-1.980)	0.009 (0.838)	-0.063*** (-3.666)	0.036 (1.615)
<i>ROA</i>	-0.026** (-2.133)	0.022* (1.729)	-0.056** (-2.563)	0.025 (0.895)
<i>CHAIRMAN</i>	-0.010 (-0.410)	0.019 (0.717)	0.017 (0.464)	0.004 (0.078)
<i>BOARDSIZE</i>	-0.006 (-1.624)	0.007 (1.601)	-0.016*** (-2.886)	0.013* (1.760)
<i>ANALYSTS</i>	-0.001 (-0.248)	0.001 (0.112)	0.002 (0.232)	-0.004 (-0.457)
<i>INSTOWNERS</i>	-0.037 (-0.899)	0.043 (1.007)	0.003 (0.046)	-0.001 (-0.009)
<i>AGE</i>	0.001 (0.557)	-0.000 (-0.265)	0.001 (0.232)	0.001 (0.370)
<i>TENURE</i>	0.003* (1.826)	-0.002 (-1.369)	0.007** (1.976)	-0.001 (-0.291)
<i>EDUCATION</i>	-0.007 (-0.545)	0.017 (1.190)	0.019 (1.021)	-0.011 (-0.453)
<i>CONSTANT</i>	0.570 (1.614)	0.053 (0.144)	0.436 (1.102)	-0.015 (-0.029)
<i>INDUSTRYFE</i>	Y	Y	Y	Y
<i>Observations (N)</i>	470	470	187	187
<i>Adjusted-R²</i>	0.163	0.168	0.289	0.175

This table presents the results of the multivariate analyses about the effect of the JOBS Act on the composition of executive compensation packages. Columns (1) and (3) present the basic OLS regression statistics for the cash compensation ratio (i.e. the natural logarithm of total cash compensation over total compensation) of the unmatched and matched sample, respectively. Columns (2) and (4) present the basic OLS regression statistics for the non-cash compensation ratio (i.e. the natural logarithm of total non-cash compensation over total compensation) of the unmatched and matched sample, respectively. Industry fixed effects (*INDUSTRYFE*) (Y/N) are based on two-digit SIC codes and included to control for the confounding effects resulting from systematic differences across industries. Control variables are added to correct for other confounding effects. Continuous variables are winsorized at 1% and 99%.

*, **, *** Indicates significance at the 0.10, 0.05, and 0.01 levels, respectively (t-statistics in parentheses).

Table 4C: Difference-in-difference design results

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
<i>EGC</i>	-0.206 (-0.515)	0.565 (1.276)	0.232 (0.222)	1.283 (1.567)	-1.744 (-1.516)	-1.177 (-1.137)	-0.372 (-0.441)
<i>NONSRC</i>	0.296 (0.557)	0.963 (1.633)	0.015 (0.010)	1.472 (1.350)	-3.186** (-2.079)	1.281 (0.929)	2.541** (2.262)
<i>EGC*NONSRC</i>	0.253 (0.475)	-0.091 (-0.154)	1.177 (0.842)	-2.647** (-2.420)	1.640 (1.067)	0.911 (0.659)	-0.809 (-0.718)
<i>LNASSETS</i>	0.327*** (2.904)	0.324** (2.587)	0.641** (2.168)	0.385* (1.666)	0.120 (0.368)	0.076 (0.260)	0.577** (2.425)
<i>RDX</i>	0.001 (0.266)	0.002 (0.287)	0.019 (1.460)	-0.008 (-0.791)	0.010 (0.720)	-0.012 (-0.926)	0.006 (0.545)
<i>OET</i>	-0.001 (-0.060)	0.006 (0.393)	-0.031 (-0.861)	0.004 (0.141)	0.028 (0.709)	0.015 (0.407)	-0.047 (-1.606)
<i>CASH</i>	-0.147 (-0.325)	-0.532 (-1.064)	0.456 (0.386)	0.740 (0.800)	0.179 (0.138)	-0.219 (-0.188)	-1.065 (-1.118)
<i>PPE</i>	-0.125 (-0.321)	0.282 (0.652)	0.625 (0.611)	1.840** (2.297)	-2.612** (-2.320)	-1.877* (-1.854)	0.428 (0.519)
<i>LOSS</i>	0.005 (0.018)	-0.009 (-0.026)	-0.642 (-0.831)	-0.553 (-0.915)	2.006** (2.360)	0.829 (1.084)	-0.667 (-1.072)
<i>LEVERAGE</i>	0.089 (0.928)	-0.086 (-0.806)	-0.042 (-0.165)	0.435** (2.205)	-0.295 (-1.062)	-0.193 (-0.772)	-0.148 (-0.728)
<i>ROA</i>	-0.038 (-0.339)	-0.211* (-1.708)	-0.041 (-0.139)	0.135 (0.591)	0.381 (1.187)	0.145 (0.502)	-0.508** (-2.158)
<i>CHAIRMAN</i>	-0.173 (-0.750)	-0.366 (-1.428)	1.225** (2.024)	0.117 (0.248)	0.033 (0.050)	-1.380** (-2.306)	-0.068 (-0.139)
<i>BOARDSIZE</i>	0.084** (2.356)	0.079** (1.993)	0.039 (0.419)	0.010 (0.138)	0.269*** (2.608)	0.214** (2.307)	0.139* (1.841)
<i>ANALYSTS</i>	0.009 (0.179)	0.080 (1.471)	-0.040 (-0.313)	-0.017 (-0.167)	0.247* (1.745)	0.272** (2.130)	-0.078 (-0.752)
<i>INSTOWNERS</i>	0.226 (0.608)	-0.021 (-0.051)	-1.104 (-1.130)	-0.889 (-1.163)	1.287 (1.198)	-0.775 (-0.803)	-0.502 (-0.638)
<i>AGE</i>	-0.009 (-0.598)	0.011 (0.706)	-0.048 (-1.282)	-0.007 (-0.250)	0.004 (0.086)	0.054 (1.433)	0.014 (0.448)
<i>TENURE</i>	-0.014 (-0.880)	0.010 (0.556)	-0.057 (-1.404)	-0.041 (-1.287)	-0.012 (-0.268)	0.006 (0.148)	-0.013 (-0.386)
<i>EDUCATION</i>	0.247** (1.980)	0.197 (1.424)	0.467 (1.427)	0.216 (0.843)	0.773** (2.147)	-0.487 (-1.503)	0.454* (1.722)
<i>CONSTANT</i>	6.644** (2.036)	3.133 (0.865)	-10.609 (-1.239)	-7.138 (-1.066)	-6.845 (-0.728)	5.040 (0.595)	-3.604 (-0.523)
<i>INDUSTRYFE</i>	Y	Y	Y	Y	Y	Y	Y
<i>Observations (N)</i>	481	481	481	481	481	481	481
<i>Adjusted R²</i>	0.308	0.327	0.149	0.144	0.220	0.226	0.202

This table presents the comprehensive difference-in-difference OLS regression results of hypothesis 3. Columns represent the same dependent variables as in Table 6. This table presents the summary statistics of the difference-in-difference design of H3. Industry fixed effects (*INDUSTRYFE*) (Y/N) are based on two-digit SIC codes and included to control for the confounding effects resulting from systematic differences across industries. Control variables are added to correct for other confounding effects. Continuous variables are winsorized at 1% and 99%.

*, **, *** Indicates significance at the 0.10, 0.05, and 0.01 levels, respectively (t-statistics in parentheses).

Table 5C: OLS regression results compensation ratios

	(1)	(2)
<i>EGC</i>	0.054 (1.228)	-0.065 (-1.413)
<i>NONSRC</i>	0.013 (0.226)	-0.016 (-0.261)
<i>EGC*NONSRC</i>	0.017 (0.296)	0.013 (0.212)
<i>LNASSETS</i>	-0.013 (-1.052)	0.016 (1.206)
<i>RDX</i>	0.000 (0.305)	-0.000 (-0.332)
<i>OET</i>	-0.000 (-0.210)	0.001 (0.377)
<i>CASH</i>	-0.026 (-0.525)	0.027 (0.517)
<i>PPE</i>	0.079* (1.820)	-0.067 (-1.488)
<i>LOSS</i>	-0.029 (-0.888)	0.049 (1.443)
<i>LEVERAGE</i>	-0.021** (-2.041)	0.009 (0.827)
<i>ROA</i>	-0.025** (-2.051)	0.022* (1.700)
<i>CHAIRMAN</i>	-0.011 (-0.415)	0.019 (0.702)
<i>BOARDSIZE</i>	-0.006 (-1.616)	0.007 (1.604)
<i>ANALYSTS</i>	-0.002 (-0.301)	0.001 (0.122)
<i>INSTOWNERS</i>	-0.036 (-0.890)	0.043 (1.013)
<i>AGE</i>	0.001 (0.603)	-0.000 (-0.269)
<i>TENURE</i>	0.003* (1.709)	-0.002 (-1.358)
<i>EDUCATION</i>	-0.007 (-0.491)	0.017 (1.193)
<i>CONSTANT</i>	0.383 (1.153)	0.219 (0.630)
<i>INDUSTRYFE</i>	Y	Y
<i>Observations (N)</i>	470	470
<i>Adjusted-R²</i>	0.164	0.168

This table presents the difference-in-difference OLS regression results of the effect of the JOBS Act on the structure of executive compensation packages at non-SRC eligible EGCs. Column (1) presents the statistics of the difference-in-difference regression for the cash compensation ratio (i.e. the natural logarithm of total cash compensation over total compensation). Column (2) presents the statistics of the difference-in-difference regression for the non-cash compensation ratio (i.e. the natural logarithm of total non-cash compensation over total compensation). Industry fixed effects (*INDUSTRYFE*) (Y/N) are based on two-digit SIC codes and included to control for the confounding effects resulting from systematic differences across industries. Control variables are added to correct for other confounding effects. Continuous variables are winsorized at 1% and 99%. *, **, *** Indicates significance at the 0.10, 0.05, and 0.01 levels, respectively (t-statistics in parentheses).

