

**DOES EMERGING GROWTH COMPANY INVESTOR SKEPTICISM  
DISSIPATE BEFORE THE FIRST REPORTED INDEPENDENT INTERNAL  
CONTROL AUDIT RESULTS?  
AN EMPIRICAL INVESTIGATION**

by

Lawrence S. Burke, CPA

A Dissertation Submitted to the Faculty of  
the College of Business  
in Partial Fulfillment of the Requirement for the Degree of  
Doctor of Philosophy

Florida Atlantic University

Boca Raton, FL

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This dissertation was prepared under the direction of the candidate's dissertation advisor, Dr. Mark Kohlbeck, School of Accounting, and has been approved by all members of the supervisory committee. It was submitted to the faculty of the College of Business and was accepted in partial fulfillment of the requirements for the degree of Doctor of Philosophy.

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## **ABSTRACT**

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This study examines whether emerging growth company (EGC) investors respond to the annual required internal control disclosures over financial reporting (ICFR). I develop three hypotheses to test across the EGC lifecycle. Specifically, I investigate whether the first year ICFR disclosure, the remediation of a previously reported material weakness ICFR disclosure and the EGC exit are associated with the firm's cumulative abnormal return over a three-day event window. Prior literature has observed that ICFR disclosures by management and the ICFR audit opinion can be shown to be informative to investors. However, I am not aware of any study investigating whether the EGC investors respond to this type of information. I find that the reported ICFR disclosures are not associated with cumulative abnormal returns during their initial ICFR report disclosure or upon exit as informative but do respond to the reporting of material weakness remediation.

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**CHAPTER 1 - INTRODUCTION**

The 2012 passage of the Jumpstart Our Business Act (the JOBS Act) and introduction of the emerging growth company (EGCs) classification status for newly listed public companies create a natural experimental condition. I exploit this situation to better understand the impact of the internal controls over financial reporting (ICFR) disclosures and the deferral of the ICFR audit requirement. Intended to stimulate a rise in public company listings, the JOBS Act relaxes several regulatory requirements for a finite period not to exceed five years after a firm's initial public offering. I investigate one such regulatory requirement where the JOBS Act postponed the ICFR audit requirement under the Sarbanes-Oxley Act (SOX) for up to 5 years after an EGC's initial public offering (IPO). The legislated delay was in response to criticism that the ICFR audit is commonly associated with increased compliance costs for firms.

During the IPO registration process, most firms elect to be treated as an EGC and can benefit from the relaxed regulatory requirements and decreased compliance costs by not being required to undergo an independent ICFR audit and obtain an audit opinion under SOX Section 404(b). However, EGC firms are still required under SOX Section 404(a) to

assess and report management's assessment of ICFR annually. I examine whether investors view management's annual ICFR disclosure as increasing the information content of earnings during EGC tenure, and for newly exited EGCs, the impact on the information content of earnings of the ICFR disclosure under SOX Section 404(a) and the initial ICFR audit report under SOX Section 404(b).

Agency theory suggests that managerial disclosures and independent auditor assurance provide effective monitoring mechanisms over management. Prior research finds that investors react negatively to firms that disclose less information, and that market liquidity improves with enhanced financial disclosures (Heflin, Shaw and Wild 2005). Disclosures are viewed as beneficial to investors during the equity securities offering process and subsequent issued periodic financial reports suggesting a reduction in information asymmetry (Shroff, Sun, White and Zhang 2013; Healy and Palepu 2001); however, disclosures can be costly to firms (Beyer, Cohen, Lys, and Walther 2010; Bushee and Leuz 2005). Striving to balance the tradeoff between investors' desire for relevant information and firms' desire for lower compliance costs, EGC status is intended to facilitate smaller, growth-oriented firms accessing IPO capital market benefits while also deferring until triggering events occur, the need to make costly disclosures and obtain an independent ICFR audit.

Research on information uncertainty and information quality indicate that EGCs have greater information uncertainty around their IPO and lower value relevance and quality information after their IPO relative to non EGCs (Barth, Landsman and Taylor 2017; Yu, Rezaee and Zhang 2019). Holder, Karim and Robin (2013) showed that financial reporting quality is higher for accelerated filers (firms with a public float of more

than \$75 million at the end of their respective second quarter) that are required to obtain and report ICFR audit results versus non accelerated filers, which are not subject to the independent ICFR audit. This research suggests there is a relationship between internal control disclosures and financial reporting quality. It is unclear whether management's ICFR disclosures alone communicate information about earnings quality to the market.

Internal control disclosures by management are required under SOX Section 302 which requires firm management to report quarterly on their financial reporting and disclosure controls. SOX Section 302 requires disclosures to investors if a change in ICFR occurred including whether a material weakness is identified. Annually, SOX Section 404(a) requires firm management to assess and report on the effectiveness of ICFR. These two SOX Sections are the primary mechanisms that require management to disclose to investors the status of ICFR including whether a material weakness is identified and subsequently remediated.

Research has shown that reported unaudited material weaknesses under SOX Section 302 are informative to investors and costly to firms with negative returns being observed (Beneish, Billings and Hodder 2008; Hammersley, Myers and Shakespeare 2008). In addition, higher audit fees are associated with material weakness disclosures under SOX Section 302 in the year of disclosure and the subsequent year even if the material weakness is disclosed as remediated under SOX Section 404(a) (Hoitash, Hoitash, and Bedard 2008). Initial disclosed material weaknesses under SOX Section 404(b) are also shown to be associated with chief financial officer replacement (Li, Sun and Ettredge 2010). Information technology material weaknesses disclosed under SOX Section 404(a) are associated with executive and board of director turnover (Haislip, Masli, Richardson

and Sanchez 2016). Because there are costs associated with reporting material weaknesses, incentives exist for management to underreport. Research has found that such underreporting exists for non-accelerated filers (Ge, Koester and McVay 2017) and that penalties for management underreporting of material weaknesses are not a significant deterrent (Rice, Weber and Wu 2015).

To address the agency issue of management underreporting of material weaknesses, SOX Section 404(b) is intended to serve as an independent monitoring mechanism by having the independent auditor perform an annual audit of ICFR and report its results. However, SOX Section 404(b) is only applicable to accelerated filers, except those that qualify as an EGC, and large accelerated filers. An EGC could become an accelerated filer or large accelerated filer if a triggering event occurs during EGC tenure, which then provides the EGC at least two quarters to prepare for the initial ICFR audit.<sup>1</sup> Since the pending EGC exit and accelerated filer status qualification is known several quarters in advance, investors can anticipate the initial ICFR audit results. To the contrary, research has shown that investors of firms that consummate an acquisition and then exploit a regulatory exemption that defers SOX Section 404 adoption for the acquired operations until the subsequent fiscal year, do not anticipate ICFR results until reported (Kravet, McVay and Weber 2018; Carnes, Christensen and Lamoreaux 2019).

Since the ICFR independent audit requirement and ICFR management disclosures became mandated under SOX, research has observed that investors use ICFR information

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<sup>1</sup> An EGC will lose its status upon the earliest of (i) reporting total annual gross revenues in excess of \$1.07 billion; (ii) the last day of the fiscal year following the fifth anniversary of the date of the first sale of common equity securities as an EGC; (iii) the date on which it has issued more than \$1.0 billion in non-convertible-debt in the prior three years; or (iv) the date on which it becomes a large accelerated filer.

when making decisions (Beneish et al. 2008; Hammersley et. al. 2008). Even though EGC firms are required to provide their own annual ICFR assessment throughout the EGC tenure, the lack of an independent audit of ICFR limits the ability of investors to mitigate the agency problem of managerial discretion in disclosure reporting even though EGCs are subject to the annual financial statement audit under Public Company Accounting Oversight Board (PCAOB) Auditing Standards (AS).<sup>2</sup> Because of the structure of the EGC exit process, investors can anticipate the outcome of a first time ICFR audit and when it will be reported.

Research has shown that management's ICFR assessment can be subject to managerial discretion (Ge et al. 2017; Rice et al. 2015) even though firm officers who are required to certify the annual ICFR assessment in the Form 10-K can be subject to penalties. However, the reporting of the independent ICFR audit results is associated with increases in information quality and reduced information asymmetry for investors (Holder et al. 2013; Ashbaugh-Skaife, Collins, Kinney Jr. and LaFond 2009; Hoffman, Campbell and Smith 2020). Prior research also observed that investors have discounted the information provided by EGCs around the IPO. Research studying SOX and EGC disclosures demonstrated that there are incentives for management to underreport material weaknesses (Li et al. 2010; Haislip et al. 2016), and that EGC investors have demonstrated their skepticism about EGC financial reporting quality starting with the IPO process (Barth et al. 2017; Yu et al. 2019).

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<sup>2</sup> Under PCOAB AS 2110: *Identifying and Assessing Risks of Material Misstatement* (PCAOB 2010), there is a requirement for the financial statement auditor to obtain an understanding of each component of internal control over financial reporting as part of identifying and assessing risks of material misstatement even if the independent auditor is not performing an ICFR audit.

After the IPO and filing of the first Form 10-K, an EGC is required to perform an annual assessment and disclose whether ICFR is effective or if there is a material weakness. The annual ICFR assessment and disclosure continues until the EGC's exit, with each annual ICFR assessment providing more information to EGC investors. Whether this additional information is informative to skeptical EGC investors is an empirical question. I predict that EGC investors will find the initial required annual ICFR assessment and disclosure informative. In addition, I predict that the disclosure of fully remediated material weaknesses based on the annual ICFR assessment will be informative and that investors of newly exited EGC firms will find the initial external audit and reporting of effective ICFR as also being informative.

Using a sample of current and former EGCs from 2012 to 2021, I test three hypotheses related to EGC ICFR annual assessment disclosures and the information content of earnings. First, I examine whether the initial required annual ICFR assessment is informative to EGC investors compared to EGCs that voluntarily provided the ICFR assessment prior to its requirement.<sup>3</sup> I then examine whether the annual assessment and disclosure of effective ICFR after reporting a material weakness affects the information content of earnings. Upon EGC exit, I examine whether the initial audit by the external auditor of ICFR affects the information content of earnings compared newly exited EGCs not subject to the audit of ICFR when there are no reported material weaknesses.

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<sup>3</sup> A newly public company is not required to provide an ICFR assessment under SOX Section 404(a) until after it has filed its first Form 10-K, (17 CFR § 229.308). For example, an EGC after its IPO is required to file its first Form 10-K and may voluntarily elect to perform an ICFR assessment under SOX Section 404(a) and disclose the results in that first Form 10-K filing but it is required to perform an ICFR assessment and disclose the results in its second Form 10-K filing.

By examining unexpected returns of EGC firms and newly exited EGCs around SOX Section 404(a) reporting dates, I investigate how investors react to ICFR disclosures. Since each hypothesis involves the disclosure of additional ICFR information to EGC investors, I expect the information content of earnings is affected by each annual SOX Section 404(a) disclosure. Contrary to my expectation, I find that there is no informativeness of earnings when the initial required annual ICFR assessment and disclosure are made. However, I find that investors do view the annual disclosure of effective ICFR after an EGC reported a material weakness as informative to investors, but the association is opposite of my prediction. For newly exited EGC firms, I find that investors do not find the initial audit of effective ICFR more informative than the annual ICFR assessment and disclosure.

My study makes two important contributions. First, there currently exists a robust body of research over the ICFR requirements mandated by SOX, and there is a growing body of research over EGCs exploring the tradeoffs of reduced regulatory disclosures and which stakeholders bear the costs. However, there is little research exploring the reactions of EGC investors after the IPO period to reduced disclosures and the ICFR audit deferral but the mandated EGC ICFR annual assessment and disclosure. With the recent rise of special purpose acquisition entities which elect EGC status under the JOBS Act and then trigger the EGC exit thresholds, investors should be particularly interested in how the market reacts to newly exited EGC firms around the reporting date of the initial independent ICFR audit. Based on the results of my study, one possible explanation is that EGC investor skepticism that was observed during the IPO continues throughout EGC



tenure even with mandated ICFR disclosures. Even upon exit, it seems as if EGC investor skepticism remains even when the independent auditor reports on ICFR.

Second, this research will contribute to the ongoing debate revolving around the costs and benefits of the ICFR audit versus management disclosed self-reporting of ICFR results that are not independently audited. Since the ICFR audit is intended to enhance financial reporting quality and is triggered based on market capitalization, the response of investors to firms that would normally be subject to the ICFR audit but are exempted for a period provides insight into how investors treat these exempt firms relative to similar size firms that are subject to the ICFR audit requirement. This research should also be of interest to other market participants including regulators and firms that are interested in exploring the trade-offs between disclosures, ICFR assurance, information quality and firm size. Since the results do not indicate that EGC investors view the ICFR disclosures and initial ICFR audit upon exit as being informative, it lends support to the argument that the costs of the annual ICFR assessment and disclosures are not viewed as beneficial by a certain class of investors.

The dissertation is organized as follows. Chapter 2 first describes SOX and JOBS Acts. I then explore existing research on the impact of mandated disclosures related to ICFR under SOX Section 404 and SOX Section 302 and research over the impact of the JOBS Act on firms that elect EGC status. Chapter 3 provides the theoretical development of my hypotheses. Chapter 4 presents my research design, which is followed by the sample construction and descriptive statistics in Chapter 5. My results are presented and discussed in Chapter 6. Robustness tests and other additional analyses are reported in Chapter 7. Chapter 8 offers my concluding statements.

## **CHAPTER 2 – BACKGROUND AND LITERATURE REVIEW**

This chapter reviews the literature that is pertinent to my dissertation and covers the factors leading to the passing of the Sarbanes-Oxley Act and related impact of ICFR disclosures on the capital markets. I highlight the various research studies on the costs and benefits of SOX Section 302 and Section 404, discuss the JOBS Act and the motivation for its passing and the impact it has had on EGC firms. Lastly, I discuss the impact of earnings informativeness and financial reporting and ICFR research on investors.

### **2.1 Sarbanes Oxley Act**

During the late 1990s and early 2000s, high-profile financial reporting frauds and corporate governance failures along with decreases in financial reporting quality were catalysts associated by researchers with a loss of investor confidence in the public markets (Jain, Kim and Rezaee 2008; Leuz and Wysocki 2016). In response, Congress passed the Public Company Accounting Reform and Investor Protection Act of 2002, which is better known as SOX. The act was signed into law on July 25, 2002, with the intent to “*protect investors by improving the accuracy and reliability of corporate disclosures*” (Bush, 2002).

SOX established broad, ongoing requirements for all publicly listed firms in the U.S. and their independent auditors by mandating governance, independent auditor and internal control reporting, and reporting requirements through rules issued by the Securities and Exchange Commission (SEC) (Jain et al. 2008). SOX is viewed as one of the most significant changes to public company disclosure requirements over the past several

decades and has resulted in significant changes to financial reporting, firm disclosures to investors and capital markets (Leuz et al. 2016).

SOX Sections 302 and 404 require new internal control disclosures by both management and the independent auditors and are intended to provide investors insight into the internal control environment and financial reporting processes of public firms by requiring the disclosures of the most severe internal control weaknesses (Hammersley et al. 2008; Gupta, Sami and Zhou 2018). The rollout of these disclosure requirements along with regulatory guidance was staggered with SOX Section 302 being the first mandated disclosure starting in 2003 for both accelerated and nonaccelerated filers and SOX Section 404 starting one year later for accelerated and large accelerated filers.<sup>4</sup>

Under SOX Section 302 management disclosures, public companies are required to have the chief executive officer (CEO) and chief financial officer (CFO) certify quarterly, subject to criminal penalties for falsification on the certification, whether there was any change in ICFR that has materially affected, or is reasonably likely, to materially affect ICFR. SOX Section 302 requires the disclosure in periodic SEC filings to investors that certifying officers are individually responsible for “establishing and maintaining disclosure controls and procedures” and “internal control over financial reporting.”<sup>5</sup> This periodic unaudited disclosure is designed to inform investors about internal control weaknesses that may increase financial statement errors and reduce information quality (Beneish et al. 2008).

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<sup>4</sup> Accelerated filers are firms with a public float of more than \$75 million at the end of the second quarter and nonaccelerated filers are firms with a public float less than \$75 million.

<sup>5</sup> Defined in Exchange Act Rules 13a-15(e), 15d-15(e) and 15d-15(f) (Certification of Disclosure in Companies' Quarterly and Annual Reports, II. A., 17 CFR 228, 229, 232, 240, 249, 270 and 274 (2002)

The SEC issued rules for complying with SOX Section 404(a) that requires an annual assessment by firm management of internal controls over financial reporting and the reporting of the assessment results in the firm's annual report on Form 10-K. The SEC also issued rules for complying with SOX Section 302, which require quarterly reporting to investors of changes in ICFR. In addition, the PCAOB, which was established under SOX to oversee and regulate auditors of public companies, issued rules to public company auditors on how to comply and perform the ICFR audit with SOX Section 404(b). These rules are applicable to the annual audit of ICFR for qualifying firms, and require the reporting of the audit results in a firm's annual report filed in Form 10-K as a distinct audit opinion, separate from the financial statement audit opinion.

SOX Section 404(a) disclosures and SOX Section 404(b) ICFR audit reports were required for large accelerated and accelerated filers for annual reports for fiscal years ending on or after November 15, 2004. Non-accelerated filer implementation of SOX Section 404 was initially delayed until fiscal years ending on or after December 15, 2007.

These compliance rules were met with strong resistance which resulted in the SEC and PCAOB issuing updated guidance in 2007 to modify the compliance rules under SOX Section 404(a) and the auditing standard under SOX Section 404(b). However, firms still viewed SOX Section 404 under the new guidance as burdensome without achieving significant improvement in financial reporting quality (Fan, Li, and Raghunandan 2017). Conversely, research has observed that firms that have remediated ICFR material weaknesses have an associated positive effect on their operations and that ICFR is associated with operational efficiency (Feng, Li, McVay and Skaife 2015; Cheng, Goh, Kim 2018).

In response to continued concerns about the ability and costs of non-accelerated filers to comply with SOX Section 404(b), the SEC exempted non-accelerated filers from the ICFR audit even though accelerated and large accelerated filers were not exempted. However, starting with fiscal years ending on or after December 15, 2007, non-accelerated filers are still required to comply with SOX Section 404(a). As a result of active lobbying to reduce the regulatory burden on smaller firms, a permanent exemption was granted from SOX Section 404(b) compliance for non-accelerated filers under the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010 (Gupta et al. 2018).

Filer status is based on meeting criteria established by the SEC which includes measuring the market value of a public company's voting and non-voting common equity held by non-affiliates ("public float") as of the last business day of its most recently completed second fiscal quarter (SEC Financial Reporting Manual, 2020). Based on the SEC criteria for determining filer status, firms know if they do not qualify for nonaccelerated filer status and are therefore subject to SOX Section 404(b) six months before the fiscal year end.

SOX Section 404(b) is intended to address the risk of management discretion in assessing its firm's ICFR under SOX Section 404(a) by having the firm's independent auditor perform an annual audit of ICFR, opine on the effectiveness of ICFR and disclose whether a material weakness is identified to both the audit committee and investors (Gupta et al. 2018). A material weakness is defined by the PCAOB as "a deficiency, or a combination of deficiencies, in internal control over financial reporting, such that there is a reasonable possibility that a material misstatement of the company's annual or interim financial statements will not be prevented or detected on a timely basis" (PCAOB AS 2201,

Appendix A.7.)<sup>6</sup> Under PCOAB rules, the independent auditor is also required to formally report to management and the audit committee if a significant deficiency is identified.<sup>7</sup>

Absent an audit report on ICFR, the auditor still considers aspects of internal control as part of the financial statement audit. Under PCOAB AS 2110: *Identifying and Assessing Risks of Material Misstatement* (PCAOB 2010), there is a requirement for the financial statement auditor to obtain an understanding of each component of internal control over financial reporting as part of identifying and assessing risks of material misstatement.

When SOX Section 404 was adopted, assessing and providing assurance over ICFR for both public companies and their auditors, respectively, resulted in an expansion of required disclosures to investors and increased costs to firms (Kinney and Shepardson 2011). The ICFR assessment is designed to improve the quality of financial reporting by imposing rigorous standards for documenting and testing controls on firm management and firm auditors and includes requirements to communicate to investors if either firm management or independent auditors identify a material weakness (Hoffman, Campbell and Smith 2020).

The SEC in 2018, stating the intent to reduce unnecessary burdens for smaller firms, amended its rules to exclude from the accelerated and large accelerated filer definitions an issuer that is eligible to be a smaller reporting company, and that has annual revenues of

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<sup>6</sup> Under PCAOB AS 2201: *An Audit of Internal Control Over Financial Reporting That Is Integrated with An Audit of Financial Statements*, A3, A **deficiency** in internal control over financial reporting exists when the design or operation of a control does not allow management or employees, in the normal course of performing their assigned functions, to prevent or detect misstatements on a timely basis.

<sup>7</sup> Under AS 2201: *An Audit of Internal Control Over Financial Reporting That Is Integrated with An Audit of Financial Statements*, A11, A significant deficiency is a deficiency, or a combination of deficiencies, in internal control over financial reporting, that is less severe than a material weakness yet important enough to merit attention by those responsible for oversight of the company's financial reporting.

less than \$100 million in the most recent fiscal year for which audited financial statements are available.<sup>8</sup> As a result, some firms that had been subject to the ICFR audit requirement are now exempted.

## **2.2 Cost-Benefit of SOX and Stakeholder Responses**

When SOX Section 404 was passed, Congress did not include any formal cost-benefit analysis or give any specific guidance for how it should be implemented by firms or their auditors (Kinney, Martin and Shepardson 2013). SOX resulted in a significant change to the auditing profession since public company auditors became subject to oversight by the PCAOB instead of operating as a self-regulated industry. Research suggests that regulatory oversight can lead to excess regulation, especially after high profile crises, that results in high costs imposed on those directly impacted by the regulatory burden; and in the case of SOX, for both public companies and their auditors, as they strive to comply with the new regulations (Doogar, Sivadasan and Solomon 2010). Despite vocal opposition to SOX by firms that are subject to the ICFR requirements, SOX remains largely unchanged (Coates, and Srinivasan 2014) even though there has been ongoing discussion among firms, investors, auditors and regulators regarding the costs and benefits of SOX Section 404 (Gupta, Weirich and Turner 2013). Research has suggested that firms will alter their capital structure to avoid crossing the accelerated filer threshold subjecting them to SOX Section 404(b) (Weber and Yang 2020).

Extensive research has been performed on the impact of SOX and researchers have documented both costs and benefits to stakeholders leading up to and after it was passed in

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<sup>8</sup> A smaller reporting company (SRC) is defined in Item 10(f)(1) of Regulation S-K and in 2018 the definition was expanded to include firms with a public float of less than \$250 million; or if a firm has less than \$100 million of revenues, and no public float, or public float of less than \$700 million.

2002. Prior to its passage, stakeholders lobbying in favor of its passage argued that better disclosures and overall corporate governance would reduce information asymmetry (Hochberg, Sapienza and Vissing-Joregensen 2009). Consistent with this argument, Hockberg et al. (2009) find that firms which lobbied against SOX passing experienced greater returns relative to firms that did not lobby for its passage. They suggest that the shareholder return differential is associated with a reduction in information asymmetry because SOX more strongly impacted the anti-SOX lobbying firms by regulating disclosures which resulted in better alignment of investors and management (Hochberg et al. 2009).

Disclosure regulation seems to be an effective method to improve corporate governance and decrease information asymmetry between investors and firms and has been associated with stronger monitoring and increased shareholder returns (Lo 2003). Disclosure regulation such as SOX is intended to improve financial reporting quality in response to underlying factors associated with agency theory and improved information asymmetry where manager and investors incentives are misaligned and regulated disclosures serve as a mechanism to improve information credibility (Beyer, et al. 2010). Regardless of whether disclosures are mandatory or voluntary, high-quality information disclosed to investors enable capital markets to function more efficiently, and a relationship is observed between disclosures and market liquidity (Heflin et al. 2005; Bushee et al. 2004). Firms which are viewed as having higher quality information environments seem to be rewarded by investors by having greater liquidity and abnormal returns relative to other firms (Kim, Lin and Yang 2021).



Coates et al. (2014) found in their review of 120 research papers that financial reporting quality did improve after SOX was passed but that implementation costs were burdensome to all firms with smaller firms bearing the brunt. In response to stakeholder concerns over compliance costs, the ICFR audit attestation requirement evolved by replacing the initial ICFR audit standard, PCAOB AS2, with PCOAB AS5, in 2007 to reflect a more risk-based ICFR audit focus and to emphasize the integrated nature of the financial and internal controls-based audit. AS5 also eliminated the AS2 requirement for the auditor to opine on management's process for evaluating ICFR. Leading up to the issuance of AS5, Hoffman et al. (2020) observed that investors viewed the revision of AS2 unfavorably likely due to concerns about it weakening financial reporting quality even though the primary benefit was to reduce the regulatory burden on firms. Hoffman et al. (2020) also observed that financial restatements increased for the three periods after AS5 was issued relative to the three periods prior to the issuance of AS5 and suggests that investor concerns about the AS5 issuance had validity.

Another SOX Section 404 cost is higher audit fees. Weber and Yang (2020) suggest that SOX Section 404 audit requirements have incentivized firms to favor debt instead of equity. Additional research suggests that the compliance burden for smaller firms is too high and a disincentive when small firms consider entering the public equity markets (Convery and Levine 2020).

Research on investor reactions to the ICFR disclosures requirements indicated that the information provided was value relevant. Jain et al. (2008) observes that market liquidity improved over time from prior to the passage of SOX to the period just after passage and suggests that the passing of SOX and the implementation of SEC disclosure

rules including the executive certification of financial statements by executives and anticipated internal control provisions improved the reliability of financial reports and reduced information asymmetry. Earnings informativeness was observed to increase in the year SOX Section 404(b) was implemented for firms that did not report a material weakness (Chen, Krishnan, Sami and Zhou 2013).

### **2.3 JOBS Act and Disclosures**

The number of initial public offerings, especially for smaller firms, decreased in the early 2000s relative to the prior two decades. This decline in IPOs caused concern that lower job creation would result and was one rationale for the passage of the JOBS Act, which reduces the regulatory requirements for newly public companies and accelerates the public capital raising of smaller business (Ritter 2014). In the years prior to the passage of the JOBS Act, there was growing opposition observed to the regulatory burden imposed by sections of SOX including SOX Section 404 (Iliev 2010). Regulatory relief under the JOBS Act impacted the information requirements that firms provided during the IPO process and the ongoing disclosures subsequent to IPO for the duration a firm qualified as an EGC.

The JOBS Act was signed into law (PL 112-106) by President Obama April 5, 2012. In his signing comments, Obama noted that the JOBS Act is intended to make it easier for companies to access the public markets, which is viewed as major step for company growth and the hiring of more workers, especially since there is still the ongoing recovery from one of the worst recessions in US history (Obama 2012). One mechanism from the JOBS Act designed to facilitate the increase in IPOs is the introduction of a new public company registration and reporting classification status, the emerging growth

company (EGC). To qualify as an EGC, the IPO firm must have revenues of less than \$1 billion during its most recent fiscal year, has not issued more than \$1 billion of nonconvertible-debt in the past three years and does not qualify as a large accelerated filer as defined by SEC filer reporting rules.

EGCs can remain subject to the relaxed regulatory requirements for up to 5 years after their IPO, provided they do not exceed revenue, debt and market capitalization thresholds. Once an EGC firm triggers one of these thresholds, it loses EGC status permanently and is no longer subject to the relaxed regulatory requirements including the suspension of the ICFR audit. For exiting EGCs that qualify as accelerated filers or large accelerated filers, the result of the initial ICFR audit is reported in the first Form 10-K filing after EGC exit and that filing is due no later than 75 days (60 days for large accelerated filers) after the end the fiscal year end for newly exited EGC firms. Whether a firm is disqualified as an EGC and becomes subject to the ICFR audit requirement is determined by certain threshold tests that are performed prior to the end of EGC fiscal year, which is when public company filing status is determined in accordance with SEC rules. Filer status is determined on the last business day of a firm's most recently completed second fiscal quarter, and this measurement date occurs six months prior to the end of the respective fiscal year that the filer status relates to.

Under SEC regulations, non EGC firms that qualify as non-accelerated filers and smaller reporting companies, are not subject to the audit of ICFR under SOX. and accelerated and large accelerated filers are subject to the ICFR audit under SOX. If an EGC becomes a large accelerated filer, which is the public float of at least \$700 million

during the first four years of EGC existence, then the EGC loses its EGC status.<sup>9</sup> Assuming EGC revenue, debt and market capitalization thresholds that would trigger EGC exit are not exceeded by the fifth year after IPO, the EGC loses its exemption status as a result of exceeding the tenure threshold and is treated as a regular filer subject to SOX Section 404(b), if it qualifies as an accelerated or large accelerated filer.

The JOBS Act intended to stimulate more IPOs, and this was observed to occur, especially for firms with higher proprietary disclosure costs that exploited the opportunity to confidentially engage with investors prior to fully committing to the IPO process (Dambra, Field and Gustafson 2015). A primary motivating factor for the JOBS Act was the desire to reduce the regulatory burden for smaller, fast-growing firms seeking to access the public market. Khurana and Zhao (2019) observed that contrary to intent, audit fees are higher for EGCs than non EGCs after IPOs, especially for EGCs that are determined to have high financial reporting risk.

An additional motivation for the creation of the EGC status under the JOBS Act was to facilitate capital creation in the public markets, but there were also concerns that fewer disclosures would increase investor risk as a result of higher information asymmetry associated with EGCs relative to non EGCs. Because information quality can be impacted by disclosures, this concern was observed for EGCs after the IPO when financial performance based on return of assets and equity and stock returns lagged non-EGCs which

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<sup>9</sup> An issuer becomes a large accelerate filer if (i) its aggregate worldwide market value of its voting and non-voting common equity held by non-affiliates (public float) was at least \$700 million as of the last business day of its most recently completed second quarter; (ii) it has been subject to the requirement of Section 13(a) or 15(d) of the Securities Exchange Act for at least 12 months; (iii) it has filed at least one annual report under Section 13(a) or 15(d) of the Securities Exchange Act; and (iv) is not eligible to use the requirements for smaller reporting companies (SRC) under the revenue test of the SRC definition in Rule 12b-2.

indicated that EGCs are viewed as having lower information quality and value relevance than non EGCs after the IPO (Yu et al. 2019).

Since access to public markets was a stated objective of the JOBS Act, the IPO process was relaxed for EGCs with the intent of stimulating more IPOs. However, research of EGC IPOs observed that IPO underpricing is more prevalent for EGCs than non EGCs (Chaplinsky, Hanley and Moon 2019). The increase in the cost of capital for EGCs is associated with the reduction in EGC financial and compensation disclosures during the IPO process but researchers suggest that these tradeoffs are viewed as beneficial (Chaplinsky et al. 2019) since EGC status election is pervasive as almost all new IPO issuers seek EGC status (Republican Staff Report 2022).

It has also been suggested that greater information uncertainty as a result of lower disclosure levels for EGCs is a contributor to the differences of investor response to EGCs versus non-EGCs, especially for firms that have higher proprietary costs of disclosure (Barth et al. 2017). Prior research also observed that EGCs incur higher audit fees (Khurana et al. 2019), have lower accounting information quality (Yu et. al. 2019) and have high information uncertainty during the IPO process which leads to IPO underpricing (Barth et al. 2017). During the IPO process, firms that elect EGC status can exploit the lower disclosure thresholds which results in greater information asymmetry between investors and managers. However, firms may elect to compensate for the reduced IPO disclosures by increasing the number of voluntary disclosures post-IPO; however, such disclosures are subject to management discretion and opportunism (Barth et al. 2017) which may be viewed skeptically by investors.

Exempted from SOX Section 404(b), EGCs are still required to disclose the managerial assessment of ICFR under SOX Section 404(a) and certify quarterly changes in ICFR under SOX Section 302, the same as non-EGCs. These mandated managerial disclosures are viewed as informative for investors, but research is mixed on how investors react to material weakness disclosures. Investors react negatively at the time of unaudited Section 302 material weakness disclosure with negative abnormal returns and increased cost of equity capital (Beneish et al. 2008; Hammersley et al. 2008). Section 302 material weakness disclosures also indicate lower financial reporting precision which increases investor uncertainty over firm valuation. Investor reactions to Section 302 disclosures suggest investors are surprised by the disclosure and serve as a motivation for managers to avoid disclosing material weaknesses (Lobo, Wang and Zhao 2020). Other research observed that material weaknesses, which can result from a single control deficiency or an aggregation of control deficiencies, are underreported by managers, and that managers detect fewer, less severe and pervasive control deficiencies, which serve as the basis for assessing whether a material weakness should be disclosed, than what the independent auditors detect (Bedard and Graham 2011; Rice and Weber 2012). The underreporting of material weaknesses weakens the usefulness of the SOX Section 404(a) and Section 302 disclosures.

In contrast, Section 404 disclosure research is more mixed with no observed impact on stock price or cost of capital (Beneish et al. 2008) and relatively less impact on liquidity than Section 302 disclosures (Gupta et al. 2018). However, there is evidence of higher levels of earnings informativeness than in prior years for first year Section 404 ICFR audits. In addition, Section 404 material weakness disclosures and subsequent remediation has

been shown to result in the elimination of excess insider trading profits (Skaife, Veenman and Wangerin 2013).

## **2.4 Accounting Information Content, Internal Control and Disclosures**

### *Information Content of Earnings*

Accounting earnings reports issued by firms have idiosyncratic information content which has been associated with abnormal stock performance suggesting that accounting information content is informative to investors (Kothari 2001). Earnings information content observed to be associated with negative stock performance includes restatement announcements and restatements associated with revenue recognition errors (Wilson 2008) and differing revenue recognition methods in the same industry (Rasmussen 2013). Using a sample that included restatements shortly after SOX enactment, Chen, Cheng and Lo (2014) observed that the restated firms experienced a sustained drop in the perceived information content of earnings as measured by the earnings response coefficient (ERC).

Conversely, during the initial implementation year of SOX Section 404(b), firms that disclose effective internal controls under SOX Section 302 and report an initial effective ICFR audit report audit have been associated with higher earnings informativeness than in the prior year when only SOX Section 302 disclosure were required (Chen et al. 2013). Beneish et al. (2008) also observed that unaudited Section 302 disclosures of material weaknesses were associated with higher negative abnormal returns than the audited ICFR material weakness disclosures suggesting that larger firms, which are subject to both SOX Section 404 and SOX Section 302 versus smaller firms which were exempted from SOX Section 404(b) operate in more robust information

environments. Earnings informativeness has been shown to influence stock returns in response to surprise information in earnings announcements (Easton and Zmijewski 1989). This suggests effective and ineffective ICFR disclosures, whether communicated by firms or their external auditors, can impact the information content of earnings.

### *Internal Control*

The strength of internal controls has also been associated with earnings quality (Ashbaugh-Skaife, Collins, Kinney Jr and LaFond 2009). Since the financial reporting process inherently requires management to make judgements, this creates opportunities for managers to engage in practices such as earnings management which can impact the reliability of accounting information (Healy and Wahlen 1999). Accounting information reliability, which is dependent on how economic activity is classified and reported, can also be impacted by management's biases, incentives and errors (Maines and Wahlen 2006). This was observed in the run up to the passage of SOX prior to the mandated ICFR audit and management ICFR disclosures, where an increase of accrual-based earnings management (Cohen, Dey and Lys 2008) and concerns about financial reporting reliability was associated with decreased market liquidity and investor confidence (Jain et al. 2008) and restatements (Richardson, Tuna and Wu 2002).

Weaker internal controls have been associated with low-quality accruals as measured by their relationship to cash flows (Doyle, Ge and McVay 2007). The mandated audit of ICFR has been shown to improve financial reporting quality for accelerated filers versus non-accelerated filers (Holder et al. 2013). However, there is weak evidence supporting management's annual ICFR assessment and whether financial reporting quality improves as much as the independent ICFR audit (Schroeder & Shepardson 2016).



Conversely, research on unaudited SOX Section 302 disclosures indicates that they are viewed as informative to investors (Beneish et al 2008).

### *Disclosure*

Disclosures are viewed as a mechanism to reduce the agency conflict (Bushman and Smith 2001). These disclosures can be voluntary such as earnings forecasts or mandated by regulation such as SOX internal control disclosures (Beyer et al. 2010). Disclosures are also used to level the information playing field for market participants which has been theorized to promote more “equity” in the public markets which should benefit society since reduced information asymmetry decreases socially undesirable outcomes such as illiquid capital markets (Lev 1988). Higher disclosure quality is also associated with lower costs of capital and more market liquidity (Heflin, Moon and Wallace 2016)

Investors recognize that not all disclosures carry the same weight and are able to differentiate the quality of the disclosures made by firms (Heflin et al. 2005). Researchers examining the impact of SOX Section 302 and SOX Section 404(a) disclosures and SOX Section 404(b) ICFR audit results found that first time SOX Section 302 disclosures were more informative to investors than first time SOX Section 404 results, even though no material weaknesses were reported suggesting that Section 302 disclosures are viewed as a more informative disclosure mechanism than SOX Section 404 results (Gupta et al. 2016). SEC regulated disclosures and reporting obligations, although observed as costly for smaller firms, generate benefits such as increased liquidity for firms and are associated with reduced information asymmetry (Bushee et al. 2005).

Since required disclosures are a mechanism that shareholders can use to monitor managers, agency theory suggests that the required disclosures under SOX reduce information asymmetry (Hope and Thomas 2008). In addition, hypothetical models based on imperfect competition support the association between disclosure quality and adverse selection risk (Gao 2010). Conversely, when required financial reporting disclosures become voluntary, managerial self-serving behaviors at the expense of shareholders are observed (Hope et al. 2008).

Although disclosures are viewed as being beneficial to investors and disclosures of a material weakness under SOX is required under SOX Section 302 and SOX Section 404(a), firms may not always disclose material weaknesses when they have an accounting error that leads to a misstatement. This lack of disclosure is associated with management's detection and disclosure incentives (Rice et al. 2012). Material weakness disclosures are found to be associated with executive officer and board of director turnover (Li et al. 2010; Haislip et al. 2016) and negative investor sentiment (Lopez, Vandervelde and Wu 2009). Consistent with this argument, when firms already subject to SOX Section 404(b) exercise the ability to exempt newly acquired firms from SOX Section 404(a) and SOX Section 404(b), research indicates that investors view the exemptions negatively and that the exemption suggests that future acquisition performance is more likely to be negative (Kravet et al. 2018).

With the passage of SOX and its requirements for the reporting to investors of periodic ICFR assessments, researchers observed that ICFR disclosures have been shown to improve the quality of information provided to investors and can reduce information asymmetry (Beniesh et al. 2008; Kravet et al. 2018; Ashbaugh-Skaife et al. 2009; Holder

et al. 2013; Hoffmane et al. 2020). However, critics of the ICFR audit argue that the costs outweigh its benefits (Fan et al. 2017; Gupta et al. 2018; Dooger et al. 2010; Coates et al. 2014; Gupta et al. 2013).

Responding to high regulatory cost concerns associated with SOX including the annual independent ICFR audit requirement, Congress passed the Dodd-Frank Wall Street Reform and Consumer Protection Act in 2010 which granted a permanent exemption of the independent ICFR audit for non-accelerated filers (Holder et al. 2013). Subsequently, Congress passed the JOBS Act to stimulate public company listings for growing firms and created the EGC filer classification status that exempted EGCs from certain regulatory disclosures including the independent ICFR audit for a period not to exceed five years post IPO, or sooner, depending on revenue and market capitalization thresholds. However, EGCs are still required to comply with SOX Section 404(a) and SOX Section 302 ICFR disclosures and obtain an independent financial statement audit. All of which are associated with increasing information earnings relevance for investors. Bhaskar, Schroeder and Shepardson (2019) noted that financial statement only audits (FS-only) were associated with a higher quality audit than the integrated financial statement audit which includes both the financial statement audit and the ICFR audit when misstatement likelihood and discretionary accruals were variables of interest.

## **2.5 Literature Review Summary**

SOX and its internal control disclosures impacting public companies are well-researched and the information content of earnings also has a broad stream of research but the specific study of EGC disclosures after the IPO and through the EGC exit date is less developed. Therefore, I add to this less developed stream of research by investigating

whether observations regarding earnings content and information quality, internal control and related disclosures impacting non EGCs hold true for EGCs during their tenure and upon exit.

## **CHAPTER 3 – HYPOTHESIS DEVELOPMENT**

In this chapter, I first discuss agency theory and monitoring mechanisms as it is related to the independent audit of both the financial statements and internal controls over financial reporting and board oversight. I then develop my hypotheses on the impact of these disclosures on investors of EGCs and newly exited EGCs.

### **3.1 Agency Theory and Monitoring Mechanisms**

Agency theory posits there is an inherent conflict when investors are separate from managers because of incentive differences which can lead to managers' self-serving, private benefit maximizing behaviors at the expense of shareholders (Hochberg et. al. 2009) due to differing interests in the firm (Jensen and Meckling 1976). A conflict of interest exists between management and financial statement users since investors are unable to directly observe management's activities (Watkins, Hillison, and Morecroft, 2004) which can cause information asymmetry. Independent board members are one mechanism to monitor managers and reduce information asymmetry risk for investors (Bathala and Rao 1995).<sup>10</sup>

An EGC may qualify as a controlled company in accordance with the respective stock exchange listing standards which means that more than 50% of the voting power for the election of directors is held by an individual, group or another company.<sup>11</sup> As a

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<sup>10</sup> Under SOX, audit committee members are also required to be independent.

<sup>11</sup> Ownership concentration is observed to diminish in the first five years after the IPO in response to growth opportunities (Kriaa and Hamza 2021; Foley and Greenwood 2010).

controlled company, the EGC is exempt from certain board governance requirements including the need for a majority of independent directors, a nominating and governance committee and an independent compensation committee. High levels of concentrated ownership have been observed to create high levels of information asymmetry between the controlling shareholders and other shareholders suggesting that greater director holdings influence the firm at the expense non-director shareholders (Levesque, Libby, Mathieu, and Robb 2010). In addition, research has suggested that controlled companies have more material weaknesses than non-controlled companies (IRCC Institute 2012).

An additional mechanism to mitigate behaviors that erode shareholder value and to also encourage managers to act in shareholders' interest is the independent financial statement audit. The independent audit became mandated with the passage of the 1933 Securities Act for IPOs. Independently audited financial statements are a mechanism to increase the value of the firm by reducing agency incentive conflicts (Watts and Zimmerman 1983). The independent audit serves as a check on management's behavior which can include influencing earnings by opportunistically changing financial statement amounts including accruals (Becker, DeFond, Jiambalvo, and Subramanyam 1998). The independent audit increases the reliability of the financial statements by reducing the likelihood that managers will engage in earnings management and increases the integrity of the reported accounting information thus helping investors in their capital allocation process (Beyer et al. 2010).

Investors view audited accounting information as highly relevant if it contains earnings information that provides insight into the valuation of the firm, which is a function of the long-term cash flows of the firm and internal control (Dichev, Graham, Harvey, and

Rajgopal 2013). However, in the late 1990s and early 2000s, several high-profile financial reporting failures and resulting firm bankruptcies coupled with the failure of these firms' independent auditor, Arthur Andersen, were cited as contributing factors for investor concerns regarding the integrity of the audited financial statements (Tackett, Wolf, and Claypool 2004; Bryan 2009; Beyer, Cohen, Lys and Walther 2010).

In response, Congress passed SOX which included provisions to strengthen auditor independence by prohibiting industry self-regulation and created the PCAOB to serve as the government agency overseeing public company auditors. Periodic regulatory inspection of public company audit firms and the issuance of auditing standards for both the financial statement and ICFR audit are part of this process. In addition, SOX Section 201 restricted public company audit firms from providing many non-audit services and established additional rules requiring audit committee oversight of the independent auditor to address pre-SOX concerns over improper influence on the audit process (SEC 17 CFR § 210, 240, 249 and 274). SOX Section 404 created a new audit requirement that mandated an independent audit on the effectiveness of internal controls (SEC 17 CFR § 229.308).

Not all firms are required to undergo an independent audit of ICFR; however, they are still subject to an annual financial statement audit conducted in accordance with PCAOB Auditing Standards (AS). Under PCAOB AS 2110: *Identifying and Assessing Risks of Material Misstatement* (PCAOB 2010), there is a requirement for the financial statement auditor to obtain an understanding of each component of internal control over financial reporting as part of identifying and assessing risks of material misstatement. The regulatory changes as a result of the passage of SOX to the audit process were intended to

strengthen the independence and integrity of both the audit process and the resulting monitoring mechanism of the independent audit used by investors (Franzel 2014).

Research has found that the regulatory changes to the structure of the independent audit process including the requirement for the ICFR audit enacted under SOX reduced information asymmetry and improved financial reporting quality; but these changes are also associated with increased compliance costs, and that no formal cost-benefit analysis was performed on SOX prior to passage (Hochberg et al. 2009; Coates et al 2014; Gupta et al. 2013; Chen et al. 2013; Kinney et al. 2013). After SOX passage, research found that audit fees increased (Kinney et al. 2013), operating cash flows decreased as a percent of assets (Ahmed, McAnally, Rasmussen and Weaver 2010), and that ICFR audit costs possibly create disincentives for firms to seek an IPO (Convery et al. 2020). In addition, research suggests that existing public companies alter their debt versus equity capital structure since equity issuances may trigger accelerated filing status and the need to comply with an independent ICFR audit (Weber et al. 2020).

Excessive regulatory costs were a factor cited for both the decrease in the number of IPOs and a motive to pass the JOBS Act, which created the EGC classification for firms exempting them from complying with SOX Section 404(b) until EGC exit (Khurana et al. 2019; Yu et al. 2019; Dambra et al. 2015). Existing research on JOBS Act IPOs suggest that investors find that EGCs are more IPO underpriced than non EGCs (Chaplinsky et al. 2019), incur higher audit fees (Khurana et al. 2017) have lower value relevance information and higher information asymmetry (Barth et al. 2019 and Yu et al. 2019) Yet, almost all newly public firms elect EGC status (Ten Years of the JOBS Act of 2012, 2022) which



results in less independent monitoring of ICFR for investors during EGC tenure due to the SOX Section 404(b) exemption.

### **3.2 Hypotheses Development**

Agency benefits of the independent audit and ICFR audit disclosures on the information content of earnings have been well documented. However, the impact of the exemption of the ICFR audit on earnings information content throughout EGC tenure until exit has not been fully explored. First, I discuss the nature of an EGC. Then, I develop my hypotheses.

Firms qualify for EGC status prior to their IPO and maintain it until the EGC either ages out of the exemption five years after their IPO, or prior to aging out, has (i) total revenues in excess of \$1.07 billion during its most recently completed fiscal year; or, (ii) cumulatively issued more than \$1 billion in non-convertible debt in the previous three years; or, (iii) becomes a large accelerated filer, which is determined on the last day of the EGCs fiscal year based on the market capitalization of the EGC at the end of its second fiscal quarter. A firm that qualifies for EGC status when going public and throughout its EGC tenure is subject to both the independent financial statement audit and management's assessment and disclosure of its ICFR status under SOX Section 302 and SOX Section 404(a) but not the independent audit of ICFR under SOX Section 404(b). EGC management is also required to assess ICFR effectiveness and report annually under SOX Section 404(a) whether there are any material weaknesses.

Researchers observed that newly public EGCs are viewed by investors as having more information asymmetry (Barth et al. 2017) than non EGCs and that EGCs have lower information quality (Yu et al. 2019) suggesting that there may be an unintended cost

associated with required disclosure exemptions including the independent audit report of ICFR. EGCs are exempted from the independent ICFR audit but are still subject to the annual financial statement audit which has been associated with higher information content of earnings (Becker et al. 1998; Watkins et al. 2004). In a recent study, the financial statement-only audit has been observed to be of higher quality than the combined financial statement and ICFR audit (Bhaskar et al. 2019).

Under agency theory, the independent audit of financial statements is viewed as a monitoring mechanism and associated with a higher information content of earnings. Reporting to investors that a firm has effective ICFR has been associated with higher information earnings content (Ashbaugh-Skaife et al. 2009). However, prior research observed EGCs are associated with lower earnings information content during and after the IPO versus non EGCS (Barth et al. 2017; Yu et al. 2019) suggesting the lack of disclosures and independent monitoring may cause investors to be more skeptical of EGCs.

While the financial statement audit has been shown to be an effective mechanism to increase earnings content informativeness for investors, other research suggests that firms underreport material weaknesses (Ge et al. 2017; Rice et al. 2012; Bedard et al. 2011)) which may dilute the full efficacy of the firm's standalone financial statement report on the information content of earnings. The independent audit of ICFR has been observed to mitigate this agency conflict. However, since extant research suggests that EGCs are viewed by investors as already having relatively lower information earnings content and EGCS are not subject to the ICFR audit that has been shown to increase earnings content informativeness, investors may be skeptical of EGC earnings information during EGC

tenure even when EGCs consistently report effective ICFR under SOX Section 404(a) but are exempt from the ICFR audit.

The above discussion leads to competing outcomes throughout the EGC tenure. I first consider the earnings information content of management's first required assessment of effectiveness of ICFR in their Form 10-K as a public company compared to those EGCs that had provided their first annual ICFR assessment in their first Form 10-K filing after the IPO.<sup>12</sup> On the one hand, management's assessment and disclosure of effective ICFR leads to higher information content of earnings. On the other hand, the lack of an independent audit of ICFR may lead to lower information content of earnings even if management performs an initial assessment of ICFR as a newly public EGC. This leads me to my first hypothesis stated in the null.

**H1:** An EGC's required initial effective management ICFR assessment and disclosure under SOX Section 404(a) is not associated with differential information content of earnings, compared to EGCs that elected to provide a prior year ICFR annual assessment and disclosure in the first Form 10-K after the IPO.

During the annual EGC financial statement audit, an understanding of ICFR is required to be obtained in accordance with PCAOB audit standards. In the event that the financial statement audit identifies a material weakness in ICFR, EGC management typically discloses the detail around the identified material weakness and their respective remediation plan as part of management's ICFR assessment and disclosure under SOX

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<sup>12</sup> Pursuant to Regulation S-K 308, a newly public company is not required to provide management's report on ICFR until it either had been required to file or had filed a Form 10-K with the SEC in the prior fiscal year.

Section 404(a) and SOX Section 302. During subsequent EGC management annual ICFR assessments under SOX Section 404(a) and SOX Section 302 disclosures, management will report the material weakness as either remediated or ongoing.

In instances where EGC management determined that the material weakness has been remediated and the independent financial statement auditor concurs, then management would report in its annual SOX Section 404(a) assessment and SOX Section 302 disclosure that it has effective ICFR. Remediation of material weaknesses has been associated with increased information content of earnings, changes in cost of equity and favorable operational outcomes (Ashbaugh-Skaife et al. 2009; Feng, Li, McVay and Skaife 2015; Alexand, Bauguess, Bernile, Lee and Marietta-Westberg 2013; Cheng, Goh and Kim 2018; Ashbaugh-Skaif et al. 2008).

Whether the EGC's remediation of a material weakness influences the information content of earnings leads me to my second hypothesis. I predict that EGC investors will recognize that the remediation of a material weakness leads to improvement of the ICFR environment and increases earnings content informativeness. Therefore, my second hypothesis is as follows:

**H2:** A material weakness and subsequent remediation reported by an EGC under SOX Section 404(a) is associated with greater information content of earnings after reporting the remediation of ICFR compared to EGCs that never report a material weakness.

Newly exited EGCs that qualify as accelerated filers are required to undergo their first independent ICFR audit. The required independent audit of ICFR has been associated with higher information content of earnings. However, the ICFR audit is also costly to

firms, which was cited as a motivating factor to exempt EGCs from the ICFR audit under the JOBS Act. Further, Belina (2022) provides evidence that the majority of material weaknesses disclosed under SOX Section 404(b) are viewed as surprise disclosures. Similar to financial statement activities that occur during the year being audited, the ICFR audit covers activities that occur during the year under audit. This holds for the initial ICFR audit for newly exited EGCs that qualify as accelerated filers. It is therefore an empirical question as to whether investors in newly exited EGCs are surprised by the initial ICFR audit report.

Research observed initial EGC investors as being skeptical of EGC information quality relative to non EGCs even when EGCs compensate with more voluntary disclosures (Barth et al. 2017). I argue that it is probable that this skepticism for EGCs that never reported a material weakness will continue until investors receive independent assurance that the newly exited EGC has effective ICFR. This skepticism is consistent with research that observes that management underreports material weaknesses due to weak incentives and penalties and that the independent ICFR audit increases the information content of earnings. Therefore, I expect that when the first ICFR audit report for a newly exited EGC indicates an effective internal control environment, investor confidence in the newly exited EGC's financial reporting and earnings will be enhanced. As a result, I expect increased information content of earnings for newly exited EGC firms that are subject to an ICFR audit compared to newly exited EGC firms that are not subject to an ICFR audit. My third hypothesis is as follows:

**H3:** Upon EGC exit, the information content of earnings for EGCs that are subject to the ICFR audit and receive an effective ICFR audit opinion is

greater than newly exited EGCs that are not subject to the independent ICFR audit and never reported a material weakness.

## CHAPTER 4 – RESEARCH DESIGN

I test my hypotheses using an earnings response coefficient (ERC) model similar to those used in Wilson (2008) and Chen et al. (2013). Prior research suggests that earnings informativeness is influenced by unexpected earnings and can be measured by the coefficients on reported earnings,  $E$ , and the change in reported earnings,  $\Delta E$ , (Chen et al. 2013; Ghosh and Moon, 2005). By including both earnings and earnings changes, research has shown that this strengthens ERC predictive power if earnings include both transitory and permanent elements (Easton and Harris 1991; Ali and Zarowin 1992). Therefore, cumulative abnormal returns over an event are regressed on earnings and change in earnings, which provide the ERCs. In addition, I include control variables that have been used in prior research (Chen et al. 2014; Wilson 2008) to be associated with earnings informativeness. My base ERC model is as follows:

$$\begin{aligned} \text{CAR}_{it} = & \beta_0 + \beta_1 E_{it} + \beta_2 \Delta E_{it} + \beta_3 \text{BETA}_{it} + \beta_4 \text{MTB}_{it} + \beta_5 \text{LOSS}_{it} + \beta_6 \text{SIZE}_{it} + \\ & \beta_7 \text{BIG4}_{it} + \beta_8 \text{PERSIST}_{it} + \beta_9 \text{PREDICT}_{it} + \beta_{10} \text{ANALYST}_{it} + \\ & \beta_{11} \text{VOLUME}_{it} + \varepsilon \end{aligned} \quad (1)$$

Where variables are defined as follows.<sup>13</sup> CAR is the cumulative abnormal returns and are computed as the firm's return less the CRSP value-weighted market returns, measured over the event date. The event date is a three-day window surrounding the filing date for the Form 10-K that contains the SOX Section 404(a) and/or 404(b) ICFR disclosures related

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<sup>13</sup> All variables are also defined in Table 1.

to the hypothesis being tested. Earnings (E) is income before extraordinary items, deflated by beginning market value of equity for the year and Earnings Change ( $\Delta E$ ) is the change in income before extraordinary items for the current year and the prior year, also deflated by the beginning market value of equity for the year. I expect the respective coefficients for E and  $\Delta E$  to be positive since both earnings and earnings change are associated with increases in stock price. Market beta (BETA) is included to account for systemic market risk, and I expect a negative coefficient based on prior research that indicates that ERCs are negatively related to beta risk (Collins and Kothari 1989). The market to book ratio (MTB) is included to control for the impact of growth opportunities and I expect the coefficient to be positive based on the relationship between growth and ERCs. Firms without earnings (LOSS) is an indicator variable to account whether earnings per share is negative and is equal to 1 if that is the case, otherwise 0 and I expect the coefficient to be negative Hayn (1995). The market value of a firm (SIZE) is measured as the natural log of market value of equity to control for the impact of firm size, and I expect a positive coefficient due to the correlation between this firm size, other firm level characteristics including the selection of IPO firms for EGC status signaling the intent to seek growth. If a firm is audited by a Big 4 auditor (BIG4), then the variable is coded 1, otherwise 0. I expect that this coefficient is positive based on prior research associating audit firm size with audit quality. Additional control variables for earnings persistence (PERSIST) and predictability (PREDICT) are included. PERSIST is the autoregression coefficient from Foster (1977) estimated over a two-year period prior to the earnings disclosure and based on research evidencing a positive relationship between ERC and earnings persistence (Collins et al. 1989; Easton et al. 1989), I expect a positive coefficient. PREDICT is the



variance of the absolute value of unexpected earnings over the two-year period prior to the earnings disclosure, where unexpected earnings are based on a seasonal random walk, and I expect that a negative coefficient based on Lipe (1990) that observed a negative relationship between unexpected returns and earnings predictability. I also include analyst following (ANALYST) measured as the number of analysts included in the last I/B/E/S consensus forecast before the preliminary earnings announcement and share volume traded (VOLUME) which is measured as the natural log of common shares traded by the number of common shares outstanding. ANALYST and VOLUME proxy for the information environment of the firm and I expect the coefficients to be positive.

For my hypotheses, I evaluate whether disclosures of ICFR effectiveness, material weakness, or remediated material weakness influence earnings informativeness by examining incremental ERCs. The dependent variable is the cumulative abnormal returns around the event date, which is the three-day window centered on when the EGC or newly exited EGC files its ICFR disclosure in the annual Form 10-K.

For H1, I measure earning informativeness on the filing date of the initial EGC ICFR report under SOX Section 404(a) and perform two tests. Since a newly public company is not required to provide an ICFR assessment under SOX Section 404(a) until after it has filed its first Form 10-K, (17 CFR § 229.308) after the IPO, I first test H1 by comparing earnings informativeness of the initial required EGC Form 10-K SOX Section 404(a) ICFR assessment and disclosure to firms that make a SOX Section 404(a) disclosure in their first Form 10-K filing after the IPO. Second, I test H1 by comparing earnings informativeness of the initial required EGC Form 10-K SOX Section 404(a) ICFR assessment and disclosure to EGC firms that filed SOX Section 404(a) disclosures

throughout their EGC tenure. To focus on the earnings informativeness of the presence of the ICFR report as opposed to its content, EGCs that disclose a material weakness are excluded. Below is my model to test H1.

$$\begin{aligned}
 \text{CAR}_{it} = & \beta_0 + \beta_1 E_{it} + \beta_2 \Delta E_{it} + \beta_3 \text{BETA}_{it} + \beta_4 \text{MTB}_{it} + \beta_5 \text{LOSS}_{it} + \beta_6 \text{SIZE}_{it} + \\
 & \beta_7 \text{BIG4}_{it} + \beta_8 \text{PERSIST}_{it} + \beta_9 \text{PREDICT}_{it} + \beta_{10} \text{ANALYST}_{it} + \\
 & \beta_{11} \text{VOLUME}_{it} + \beta_{12} \text{SOX404AI}_{it} + \beta_{13} [E_{it} * \text{SOX404AI}_{it}] + \\
 & \beta_{14} [\Delta E_{it} * \text{SOX404AI}_{it}] + \varepsilon
 \end{aligned} \tag{2}$$

where SOX404AI is an indicator variable that is equal to 1 if an EGC performed its first required ICFR assessment and disclosure in the second Form 10-K after the IPO after having filed the first Form 10-K after the IPO without an ICFR assessment and 0 if the first Form 10-K filed after IPO includes an ICFR assessment and disclosure. Other variables are as defined in Equation (1). I expect a positive coefficient consistent with prior research on the relationship between ICFR disclosures and ERCs. The coefficients of interest are  $\beta_{13}$  and  $\beta_{14}$  and the sum of these would be positive if EGC investors view the initial SOX Section 404(a) disclosure as informative H1 ( $\beta_{13} + \beta_{14} > 0$ ).

For H2, the regression model measures earning informativeness of the first EGC effective SOX Section 404(a) report after material weakness remediation. The status of whether a previously disclosed material weakness is remediated or remains open is communicated in the SOX Section 404(a) report to investors that is included in the EGC Form 10-K. I test H2 by comparing earnings informativeness of post material weakness remediation SOX Section 404(a) reports to EGC SOX Section 404(a) reports for EGC firms that always reported effective ICFR. I modify Equation (2) to capture the differential ERCs associated with an initial SOX Section 404(a) report that indicated effective ICFR

after the effective remediation of a material weakness that had been previously disclosed in an EGC SOX Section 404(a) report, as follows:

$$\begin{aligned}
 CAR_{it} = & \beta_0 + \beta_1 E_{it} + \beta_2 \Delta E_{it} + \beta_3 BETA_{it} + \beta_4 MTB_{it} + \beta_5 LOSS_{it} + \beta_6 SIZE_{it} + \\
 & \beta_7 BIG4_{it} + \beta_8 PERSIST_{it} + \beta_9 PREDICT_{it} + \beta_{10} ANALYST_{it} + \\
 & \beta_{11} VOLUME_{it} + \beta_{12} MWREM_{it} + \beta_{13} [E_{it} * MWREM_{it}] + \\
 & \beta_{14} [\Delta E_{it} * MWREM_{it}] + \varepsilon
 \end{aligned} \tag{3}$$

where MWREM is a dummy variable coded to 1 if the EGC SOX Section 404(a) report reports no material weakness, but previously disclosed a material weakness in a prior SOX Section 404(a) report, and 0 otherwise when there has been no previously disclosed material weakness and ICFR is reported effective under SOX Section 404(a) and other variables are as previously defined. I expect a positive coefficient based on research that suggests ICFR remediation is associated with improved earnings quality. To isolate the impact of the remediation of the previously disclosed material weakness in EGC filers versus EGCs that have never reported a material weakness, I expect positive incremental earnings informativeness ( $\beta_{13} + \beta_{14} > 0$ ) compared to EGCs that never reported and remediated a material weakness.

For H3, I investigate earnings informativeness of newly exited EGCs reporting no material weaknesses under SOX Section 404(a) and the initial SOX Section 404(b) report. I test H3 by comparing earnings informativeness for these newly exited EGC accelerated filers to newly exited EGCs that never reported a material weakness and are not subject to the SOX Section 404(b) ICFR audit. I modify Equation (2) to replace the SOX 404(a) variable with one based on SOX 404(b) as follows:

$$CAR_{it} = \beta_0 + \beta_1 E_{it} + \beta_2 \Delta E_{it} + \beta_3 BETA_{it} + \beta_4 MTB_{it} + \beta_5 LOSS_{it} + \beta_6 SIZE_{it} +$$

$$\begin{aligned}
& \beta_7 \text{BIG4}_{it} + \beta_8 \text{PERSIST}_{it} + \beta_9 \text{PREDICT}_{it} + \beta_{10} \text{ANALYST}_{it} + \\
& \beta_{11} \text{VOLUME}_{it} + \beta_{12} \text{SOX404B}_{it} + \beta_{13} [\text{E}_{it} * \text{SOX404B}_{it}] + \\
& \beta_{14} [\Delta \text{E}_{it} * \text{SOX404B}_{it}] + \varepsilon
\end{aligned} \tag{4}$$

where SOX404B is a dummy variable coded to 1 if the newly exited EGC is subject to SOX Section 404(b) and 0 otherwise, and other variables are as previously defined. Similar to my expectations for the SOX variables in Equations (2) and (3), I expect a positive coefficient for SOX404B. The coefficients of interest are  $\beta_{13}$  and  $\beta_{14}$  and the sum of these would be different than zero if newly exited EGC investors view the SOX Section 404(a) with the accompanying SOX Section 404(b) disclosure as more informative than newly exited EGCs that only disclose the SOX Section 404(a) report since they are nonaccelerated filers and therefore I would expect the earnings coefficients to be positive ( $\beta_{13} + \beta_{14} > 0$ );

## **CHAPTER 5 – SAMPLE SELECTION**

The sample to test each hypothesis starts with the firm year observations from Audit Analytics for firms that elect EGC status under the JOBS Act, and the firm-year observations include firm-years with year-end on or after April 5, 2012, through June 30, 2022. I merge the data from Compustat and CRSP for the period 2012 through 2021 and then dropped missing firm year observations. Table 2 provides the sample determination resulting in a final sample of 2,541 firm years across 749 distinct firms. Subsamples of the final sample are used to test each hypothesis as discussed in the results section.

Table 3, Panel A, provides an annual tabulation of EGCs by the year the firm is in EGC status (starting with the first year and up to six years when firms are required to exit EGC status. The tabulation reflects cumulative increases each year of EGC firms in the sample which is consistent with firms that elect EGC status and remain EGCs until exit after the fifth year or qualify as for exit due exceeding certain financial or market capitulation thresholds prior to the fifth year. Table 3, Panel B, provides a tabulation of the main test variables by year and Table 3, Panel C, provides a tabulation of distinct EGCs by year.

## CHAPTER 6 – RESULTS AND ANALYSIS

### 6.1 Descriptive Statistics

Table 4 presents summary descriptive statistics for the model variables using the pooled sample of 2,541 firm-year observations. The mean and median for E and  $\Delta E$  are negative which indicates that a majority of the EGCs are not profitable throughout their EGC tenure, and that CAR mean, and median are also negative. The mean SOXAI indicates that 20% or 508 firms in the sample have filed an initial ICFR disclosure and filed a prior year Form 10-K. The mean for MWREM indicates that 5% or 121 firms in the sample have reported and fully remediated the previously reported material weakness. The mean for SOX404B indicates that 45%, or 1,138 firms exited EGC status and upon exit, regardless of whether the exit was due to exceeding a financial threshold or tenure, required the ICFR audit upon exit.

The Pearson correlation matrix for the entire sample for all variables is reported in Table 5. E is shown to have the highest correlations with  $\Delta E$ , LOSS, SIZE, PERSIST and SOX404B variables. SIZE has the highest correlations with BIG4, ANALYST and SOX404 which is consistent with theory and with the requirement that EGCs qualifying as accelerated filers are required to under the SOX404B audit. For each hypothesis tested, I performed multicollinearity tests and noted that no VIFs other than for the interaction variables, were above 10, indicating that multicollinearity did not significantly influence the estimated regression results.

## 6.2 Hypothesis Testing

Hypothesis 1 states that investors will find first year EGC earnings informative in response to the firm disclosure of management's ICFR assessment based on the CAR during the event window which is the filing date of the Form 10-K. I provide two tests for this hypothesis using different subsamples. First, I derive a subsample by identifying EGCs in their first year that did not have a material weakness. These firms differ on whether management assesses and discloses the ICFR status in their initial Form 10-K and it is their first ICFR assessment and disclosure. I interact SOXAI, which is the variable that indicates an initial first year EGC filer, with E and  $\Delta E$  to see whether reported earnings and change in earnings are differentially informative to investors. Table 6 reports the estimation of Equation (2) using this subsample in Column (1). The adjusted  $R^2$  is 2.7%, consistent with other CAR event study models. The estimated coefficients on E and  $\Delta E$  are not significant indicating that earnings are not informative for the control firms, which is not surprising given the nature of the sample firms. Further, the individual and combined coefficients on the interaction terms are also not significant. These results indicate that there is no difference in the informativeness of earnings for EGCs that assess and disclose an ICFR report in their initial Form 10-K as their first such report. BETA, SIZE, ANALYST AND VOLUME are all significant but only ANALYST was consistent with my predicted association and the other controls variables were the opposite of my predicted association. Hypothesis 1 is not supported.

In my second test, I derive the sample by identifying EGC firms throughout their EGC tenure and excluding the exit year that did not have a material weakness and estimate Equation (2). The results are reported in Column (2) of Table 6. The adjusted  $R^2$  is only

1.4%. The variables of interest are again not significant. BETA, SIZE, ANALYST AND VOLUME are all significant but only ANALYST is consistent with my predicted association and the other controls variables are the opposite of my predicted association. Hypothesis 1 is not supported.

Hypothesis 2 states that investors will react to an EGC firm disclosure of remediation of a previously disclosed material weakness and that the earnings for the remediated EGC are more informative to EGC investors based on the CAR during the event window which is the filing date of the Form 10-K. I interact MWREM with E and  $\Delta E$  to see whether the reported earnings and change in earnings are differentially informative to investors. Table 7 reports the estimation of Equation (3). The adjusted  $R^2$  is 1.4%. The estimated coefficient for  $E * MWREM$  is positive and not statistically significant. However, the estimated coefficient on  $\Delta E * MWREM$  and the combined coefficient of  $(E * MWREM + \Delta E * MWREM)$  are both negative and statistically significant indicating that investors view a difference in the disclosures for EGC filers reporting remediation of a previously disclosed material weakness. However, this is the opposite of my predicted association. BETA, SIZE, ANALYST AND VOLUME are all significant but only ANALYST is consistent with my predicted association and the other controls variables are the opposite of my predicted association; Hypothesis 2 is not supported. It appears that investors may not believe the remediation.

Hypothesis 3 states that investors will react to a newly exited EGC firm disclosure that is subject to an independent audit of ICFR and that the earnings for the newly exited EGCs subject SOX 404(b) are more informative than newly exited firms that are not subject to SOX 404(b). I derive the sample to test H3 by identifying EGC firms that exit



after five years of EGC tenure and did not report a material weakness at exit, where some of these firms will be required to obtain an independent audit of their ICFR. I interact SOX404B with both E and  $\Delta E$  to see whether the reported earnings and change in earnings are more informative to investors. Table 8 shows the estimation results of Equation (4). Similar to our tests for Hypothesis 1, the estimated coefficients for our variables of interest are not statistically significant. BETA, LOSS and PERSIST are all significant at varying levels but only LOSS and PERSIST are consistent with my predicted association and BETA is the opposite of my predicted association. This suggests there is no difference in the informativeness of earnings for newly exited EGC firms not reporting a material weakness and are subject to an ICFR audit or are not subject to an ICFR audit. Further, given a lack of significance on the main effects for E and  $\Delta E$ , earnings are not informative for these firms. Hypothesis 3 is not supported.

## **6.2 Sensitivity Tests**

My main results do not provide support for my hypotheses. I therefore perform a number of additional analyses to investigate the lack of evidence. These analyses include using different event windows to compute CARs. I also performed influential diagnostics and removed outlier observations where the absolute value of r-student is greater than two. Further, I estimated regressions after adjusting samples to exclude firms with losses and estimated regressions excluding certain control variables. I performed these analyses for each hypothesis. Although most of the sensitivity tests indicate that the estimated coefficients on the variables of interest continue to be statistically insignificant, there are certain estimations for each hypothesis discussed below where coefficients are observed as statistically significant, providing partial support for my hypotheses.

For Hypothesis 1, I estimate regressions using different event windows ranging from 3 days prior to the filing of the Form 10-K, to three days after. I also estimate regressions using standardized CARs. In addition, I adjust the sample to exclude firms with losses and adjusted the sample in certain regressions to exclude outlier observations based on the t-student. I observe that using a CAR window of one day prior and after the event date, the estimated coefficients for  $E * SOX404AI$  and  $(E * SOX404AI + \Delta E * SOX404AI)$  were all positive and statistically significant, supporting Hypothesis 1.

For Hypothesis 2, I observe that removing outlier observations (absolute value of t-students greater than 2), the estimated coefficient on  $E * MWREM$  is positive and significant, the estimated coefficient on  $\Delta E * MWREM$  is negative and significant, and the adjusted  $R^2$  increases to 11% from the amount reported in Table 7. When I estimate the regression after dropping the PERSIST, PREDICT, ANALYST and VOLUME control variables, a similar result is observed. This result is also observed when changing the CAR window to one day prior and after the event date and all the control variables are included. These additional analyses potentially provide some support for Hypothesis 2. However, when combining the E and  $\Delta E$  interaction coefficients, no significance is observed. The estimation of these results is likely affected by the majority of the firms reporting losses.

For Hypothesis 3, I perform the same analyses. I observe that when removing outlier observations,  $E * SOX404B$  has a negative coefficient and  $\Delta E * SOX404B$  has a positive coefficient and both coefficients are statistically significant and the adjusted  $R^2$  increases to 24% from the amount reported in Table 8. However, the test of the combined coefficients is not significant. These results indicate that H3 is partially supported but suggest that investors remain skeptical about newly exited EGCs reporting on their ICFR.

## **CHAPTER 7: CONCLUSION**

This study examined whether EGC investors are influenced by ICFR disclosures at various points of EGC tenure. The literature on ICFR disclosures by management and the reported ICFR audit opinion of a firm's external auditor is mixed. Whereas the literature on the JOBS Act and EGCs indicate that investors are skeptical of the information provided and there seems to be an economic consequence to EGC firms associated with lower levels of regulated disclosures. Based on the results of this investigation, EGC investors are not influenced by the initial ICFR disclosure by management or upon exit. However, when disclosing the first effective ICFR assessment after a disclosed material weakness, there is some indication that EGC investors respond to this disclosure. This study adds to the existing literature on ICFR disclosure. It also adds to the literature on the JOBS Act and how EGC investors react to the reduced regulatory disclosures on ICFR during EGC tenure and upon exit.

### **Implications**

Since the JOBS Act was first passed into law, most firms that elect an IPO select EGC status even though existing literature indicate EGCs suffer economic consequences for reduced disclosures. The JOBS Act legislated reduced ICFR disclosures and the need for an ICFR audit during EGC tenure as a way to reduce compliance costs and stimulate more IPOs while balancing the need to provide meaningful information to investors.

However, the results of this study indicate that investors do not seem to place much credence in the annual ICFR assessment by EGC firms unless it indicates that a previously disclosed material weakness is remediated; and even when this is indicated, the results are not overly compelling. This study may suggest that the initial skepticism observed about EGC investors during the IPO continues until after EGC exit. It also could provide support for those who have suggested that the required ICFR audit does not provide a meaningful benefit especially in light of recent research which suggests that the standalone financial statement audit is higher quality than the combined ICFR and financial statement audit.

### **Limitations and Future Research**

This study has limitations in scope since the sub samples used to test each hypothesis are limited to those EGCs where data for all the variables are available. In addition, a majority of the EGC firms throughout EGC tenure had losses which could influence how investors respond to ICFR disclosures. Another factor could be related to investors discounting ICFR disclosures as research has observed that the financial statement only audit for smaller firms is viewed as higher quality than the integrated financial statement audit which includes both the financial statement and ICFR audit. In addition, the event dates that are used in this study are the reporting dates of the ICFR assessment in the Form 10-K and if EGC firms disclosed ICFR information prior to the Form 10-K filing date, that information could influence how investors reacted to the formal filing of the Form 10-K. Moreover, this study only investigated the annual ICFR assessment report during EGC tenure and did not consider the required quarterly ICFR evaluation, but not formal ICFR assessment, provided by EGC management as required under SOX Section 302.

Firms continue to overwhelmingly elect EGC status during the IPO process and a deeper understanding of this cohort of firms would be beneficial to investors and regulators. For instance, what type of influence does Board and Audit Committee composition have on investor reactions as well as the insider/outsider mix. Further, how many years after EGC exit do ICFR disclosures and the ICFR audit resonate with investors and investor skepticism dissipates.

## APPENDIX - TABLES

**Table 1: Variable Definitions**

CAR	=	the cumulative abnormal returns and are computed as the firm's return less the CRSP value-weighted market returns, measured over the event date using a 3-day event window
E	=	income before extraordinary items, deflated by beginning market value of equity for the year and winsorized at the 1 <sup>st</sup> and 99 <sup>th</sup> percentile
$\Delta E$	=	is the change in income before extraordinary items for the current year and the prior year, deflated by the beginning market value of equity for the year and winsorized at the 1 <sup>st</sup> and 99 <sup>th</sup> percentile
BETA	=	is measured as a firm's individual stock return regressed against the value weighted market index for the respective firm year
MTB	=	is the market value divided by the book value
LN_MTB	=	is the natural log of market value divided by the book value
LOSS	=	indicator variable equal to 1 if net income is a negative, and 0 otherwise
SIZE	=	is measured as the natural log of market value of equity
BIG4	=	indicator variable equal to 1 if ICFR auditor is a BIG4 firm, and 0 otherwise
PREDICT	=	is the variance of the absolute value of unexpected earnings over the two-year period prior to the earnings disclosure
PERSIST	=	is the autoregression of earnings estimated over the two-year period prior to the earnings disclosure
ANALYST	=	is the number of analysts following the firm
VOLUME	=	is the natural log of common shares traded by the number of common shares outstanding
SOX404AI	=	indicator variable equal to 1 if an EGC performed its first required ICFR assessment and disclosure in the second Form 10-K after IPO after having filed the first Form 10-K after the IPO which did not include an ICFR assessment and 0 if the first Form 10-K filed after the IPO included an ICFR assessment and disclosure
MWREM	=	indicator variable equal to 1 for the initial year subsequent to material weakness remediation and 0 otherwise
SOX404B	=	indicator variable equal to 1 for the initial year of SOX404(b) compliance upon exit of emerging growth company status and 0 otherwise

**Table 2: Sample Determination****Panel A: Preliminary Sample**

Emerging growth firms identified in Audit Analytics from 2012 to 2021	12,087
Less: firm year observations missing Compustat financial measures	6239
Less: firm year observations missing required variables from CRPS	3,307
<b>Preliminary Sample (firm years)</b>	<b>2,541</b>

**Panel B: Sample used for Hypotheses Testing**

	<b>H1(1)</b>	<b>H1(2)</b>	<b>H2</b>	<b>H3</b>
Preliminary Sample	2,541	2,541	2,541	2541
Less: EGC firm years not relevant for	2,029	277	277	2,264
Less: EGC firms with material weaknesses not relevant for hypothesis	41	205	205	30
<b>Subsample (firm years)</b>	<b>471</b>	<b>2,059</b>	<b>2,059</b>	<b>247</b>

**Table 3: Sample Distribution by Year and Emerging Growth Firm Duration****Panel A: Tabulation of Emerging Growth Companies by Fiscal Year and Duration**

EGC Year	Fiscal Year									Total
	2013	2014	2015	2016	2017	2018	2019	2020	2021	
1	59	47	74	57	45	65	81	84	0	512
2	0	73	74	87	68	60	88	96	1	547
3	0	1	72	73	95	68	62	98	0	469
4	0	0	1	74	78	102	74	65	0	394
5	0	0	0	4	77	82	105	73	1	342
6 (a)	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>2</u>	<u>84</u>	<u>87</u>	<u>104</u>	<u>0</u>	<u>277</u>
Total	59	121	221	295	365	461	497	520	2	2,541

**Panel B: Tabulation of Main Test Variables**

	Fiscal Year									Total
	2013	2014	2015	2016	2017	2018	2019	2020	2021	
SOX AI	59	47	72	57	45	65	80	83	0	508
MWREM	2	5	12	11	16	19	18	37	1	121
SOX404B	24	48	77	100	155	232	278	222	2	1,138

**Panel C: Tabulation of Unique EGC Firms by Fiscal Year**

Firms	Fiscal Year									Total
	2013	2014	2015	2016	2017	2018	2019	2020	2021	
Firms	59	64	114	86	73	101	127	125	0	749



**Table 4: Descriptive Statistics**

<b>Variable (N=2,541)</b>	<b>Mean</b>	<b>Standard Deviation</b>	<b>Minimum</b>	<b>25<sup>th</sup> Percentile</b>	<b>Median</b>	<b>75<sup>th</sup> Percentile</b>	<b>Maximum</b>
CAR	-0.005	0.134	-0.947	-0.059	-0.004	0.045	1.577
E	-0.148	0.425	-7.098	-0.188	-0.035	0.040	0.662
ΔE	-0.002	0.325	-3.497	-0.047	-0.002	0.028	6.372
BETA	1.109	0.654	-2.653	0.691	1.091	1.490	8.822
MTB	3.814	21.237	-451.306	1.181	2.573	5.619	315.287
LOSS	0.605	0.489	0.000	0.000	1.000	1.000	1.000
SIZE	6.091	1.717	1.232	4.914	6.142	7.272	11.863
BIG4	0.360	0.480	0.000	0.000	0.000	1.000	1.000
PERSIST	0.165	1.166	-42.374	-0.139	0.123	0.454	19.872
PREDICT	1.670	28.930	0.000	0.008	0.029	0.135	973.177
ANALYST	5.335	5.052	0.000	2.000	4.000	7.000	36.000
VOLUME	1.127	0.066	0.853	1.089	1.129	1.163	1.405
SOXAI	0.200	0.400	0.000	0.000	0.000	0.000	1.000
MWREM	0.048	0.214	0.000	0.000	0.000	0.000	1.000
SOX404B	0.448	0.497	0.000	0.000	0.000	1.000	1.000

Notes: Table 4 presents sample descriptive statistics pooled for EGC. See Table 1 for variable definition.

**Table 5: Pearson Correlation Matrix****Panel A: Variables 1 to 8**

	Variables	v1	v2	v3	v4	v5	v6	v7	v8
v1	CAR	1.000							
v2	E	<b>0.043</b>	1.000						
v3	$\Delta E$	0.014	<b>0.289</b>	1.000					
v4	BETA	<b>0.100</b>	0.013	0.009	1.000				
v5	MTB	-0.005	0.009	0.010	0.035	1.000			
v6	LN_MTB	-0.001	<b>-0.082</b>	0.003	<b>-0.045</b>	<b>0.396</b>	1.000		
v7	LOSS	-0.011	<b>-0.413</b>	<b>-0.115</b>	<b>0.176</b>	<b>0.048</b>	<b>0.055</b>	1.000	
v8	SIZE	0.013	<b>0.348</b>	<b>-0.043</b>	<b>0.278</b>	<b>0.081</b>	<b>-0.134</b>	<b>-0.244</b>	1.000
v9	BIG4	0.017	<b>0.175</b>	-0.028	<b>0.179</b>	0.021	<b>-0.064</b>	<b>-0.112</b>	<b>0.625</b>
v10	PREDICT	0.021	<b>-0.059</b>	<b>-0.124</b>	-0.009	-0.005	-0.004	-0.022	-0.018
v11	PERSIST	0.004	<b>0.166</b>	<b>0.232</b>	<b>0.067</b>	0.016	-0.006	0.004	<b>0.052</b>
v12	ANALYST	<b>0.045</b>	<b>0.179</b>	-0.027	<b>0.292</b>	<b>0.076</b>	<b>-0.073</b>	<b>-0.056</b>	<b>0.672</b>
v13	VOLUME	<b>-0.047</b>	<b>-0.332</b>	0.013	<b>0.281</b>	<b>0.050</b>	<b>0.041</b>	<b>0.268</b>	<b>0.068</b>
v14	SOX404AI	0.031	<b>0.081</b>	0.004	<b>-0.042</b>	0.007	-0.021	0.001	0.030
v15	MWREM	-0.014	0.000	-0.002	0.016	<b>-0.058</b>	<b>-0.049</b>	0.008	-0.010
v16	SOX404B	-0.001	<b>0.223</b>	<b>-0.042</b>	<b>0.165</b>	0.028	<b>-0.072</b>	<b>-0.213</b>	<b>0.632</b>

**Panel B: Variables 9 to 16**

	Variables	v9	v10	v11	v12	v13	v14	v15	v16
v9	BIG4	1.000							
v10	PREDICT	-0.023	1.000						
v11	PERSIST	-0.005	-0.021	1.000					
v12	ANALYST	<b>0.457</b>	-0.018	<b>0.064</b>	1.000				
v13	VOLUME	<b>0.137</b>	-0.010	0.006	<b>0.212</b>	1.000			
v14	SOX404AI	<b>-0.131</b>	-0.021	0.022	<b>-0.056</b>	<b>-0.097</b>	1.000		
v15	MWREM	-0.007	-0.005	0.014	-0.022	0.030	0.007	1.000	
v16	SOX404B	<b>0.832</b>	0.021	0.000	<b>0.454</b>	<b>0.094</b>	<b>-0.177</b>	0.009	1.000

Notes: Table 5 presents the Pearson correlation matrix for EGC pooled sample (n=2541). The coefficients in bold are significant at the 0.05 level. See Table 1 for variable definitions.

**Table 6: Regression of Initial ICFR Report for EGCs**

Variable	Prediction	(1)	(2)
E	+	0.9927 (0.34)	0.0059 (0.55)
$\Delta E$	+	1.6348 (0.63)	-0.0046 (-0.36)
BETA	-	0.0424*** (3.64)	0.0250*** (4.94)
MTB	+	-0.0003 (-0.51)	-0.0000 (-0.06)
LOSS	-	0.0182 (1.01)	-0.0018 (-0.25)
SIZE	+	-0.0163** (-2.30)	-0.0081*** (-2.79)
BIG4	+	0.0272 (1.35)	0.0060 (0.75)
PERSIST	+	-0.0027 (-0.22)	-0.0052 (-1.29)
PREDICT	-	-0.0002 (-0.09)	-0.0000 (-0.26)
ANALYST	+	0.0053*** (2.62)	0.0022*** (2.72)
VOLUME	+	-0.2865** (-2.23)	-0.1594*** (-2.95)
SOX404AI		-0.0189 (-0.08)	0.01213 (1.61)
E * SOX404AI	+	-0.9859 (-0.34)	-0.0274 (-0.74)
$\Delta E$ * SOX404AI	+	-1.5579 (-0.60)	0.0683 (1.39)
Adjusted R <sup>2</sup>		0.0273	0.0143
N		471	2059
Test of Combined Coefficients			
(E * SOX404AI) + ( $\Delta E$ * SOX404AI)	+	-2.5438 (-0.51)	0.0409 (-0.73)

Notes: In Table 6, I estimate Equation (2) where the dependent variables are CAR. In Column (1), I compare the initial required EGC ICFR disclosure to EGC firms that had made no ICFR disclosure in their first Form 10-K filing. In Column (2), I compare the initial required EGC ICFR disclosure to EGC ICFR disclosures made throughout EGC tenure. The t-statistics are in

paratheses. \*, \*\*, \*\*\* indicate significance levels at the 0.10, 0.05, and 0.01 level for two tailed tests (one-tailed for the directional predictions). Variables are defined in Table 1.

**Table 7: Regression of Fully Remediated Material Weakness for EGCs**

Variable	Prediction	(1)
E	+	0.0074 (0.68)
$\Delta E$	+	0.0061 (0.48)
BETA	-	0.0236*** (4.66)
MTB	+	0.0000 (0.01)
LOSS	-	-0.0004 (-0.05)
SIZE	+	-0.0073** (-2.55)
BIG4	+	0.0029 (0.37)
PERSIST	+	-0.0057 (-1.42)
PREDICT	-	-0.0000 (-0.15)
ANALYST	+	0.0019** (2.49)
VOLUME	+	-0.1462*** (-2.70)
MWREM		-0.0017 (-0.12)
E * MWREM	+	0.0258 (0.59)
$\Delta E$ * MWREM	+	-0.1412** (-2.49)
Adjusted R <sup>2</sup>		0.0143
N		2,059
<b>Test of Combined Coefficients</b>		
(E * MWREM) + ( $\Delta E$ * MWREM)	H2: +	-0.1153** (-1.98)

Notes: In Table 7, I estimate Equation (3) where the dependent variable is CAR. I compare the fully remediated material weakness ICFR EGC disclosure to EGC effective ICFR disclosures. The t-statistics are in parentheses. \*, \*\*, \*\*\* indicate significance

levels at the .10, .05, and .01 level for two tailed tests (one-tailed for the directional predictions). Variables are defined in Table 1.

**Table 8: Regression of Aged Out Exited EGCs**

Variable	Prediction	(1)
E	+	0.0084 (0.32)
$\Delta E$	+	-0.0525 (-1.41)
BETA	-	0.0549*** (2.71)
MTB	+	-0.0000 (-0.01)
LOSS	-	-0.0433* (-1.68)
SIZE	+	-0.0028 (-0.29)
BIG4	+	0.0397 (1.50)
PERSIST	+	0.0063* (1.66)
PREDICT	-	0.0002 (1.29)
ANALYST	+	0.0009 (0.38)
VOLUME	+	0.1894 (0.97)
SOX404B		-0.0283 (-0.87)
E * SOX404B	+	0.0306 (0.31)
$\Delta E$ * SOX404B	+	0.0487 (0.63)
Adjusted R <sup>2</sup>		0.0534
N		247
<b>Test of Combined Coefficients</b>		
(E * SOX404B) + ( $\Delta E$ * SOX404B)	H3: +	0.0793 (1.05)

Notes: In Table 8, I estimate Equation (4) where the dependent variable is CAR and I compare the newly EGC subject to SOX404B to newly exited EGCs not subject to SOX404B. The t-statistics are in paratheses. \*, \*\*, \*\*\* indicate significance levels at the .10, .05, and .01 level for two tailed tests (one-tailed for the directional predictions). Variables are defined in Table 1.

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