

**DO AUDITING STANDARD SETTERS RESPOND TO PUBLIC CONCERNS?
EXPLORING THE ECONOMIC CYCLE AND AUDITING STANDARD PRECISION IN
THE PRE-PCAOB ERA**

By

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ABSTRACT

DO AUDITING STANDARD SETTERS RESPOND TO PUBLIC CONCERNS? EXPLORING THE ECONOMIC CYCLE AND AUDITING STANDARD PRECISION IN THE PRE-PCAOB ERA

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Have private auditing standard setters been responsive to constituent concerns? I explore the frequency of auditing standard issuance and the relative precision of auditing standards from 1939 through 2002, before the creation of the Public Company Accounting Oversight Board in 2002. My findings suggest that private standard setters have responded to a changing constituent base, becoming more responsive over time to investor concerns. Auditing standard setters increase the number of standards issued when investors are most at risk of loss, that is, during economic contractions. In addition to increasing the number of auditing standards issued, auditing standards may have precise features that make it easier to document compliance with the standard. However, when I control for number of standards issued, I do not find evidence of a relationship between standard precision and economic contractions. In addition, I find a negative association between precision and regulatory enforcement actions. These results indicate that enforcement is an important part of auditing standard setting and provide insight into an auditor's preferences for precise standards. These findings should be of interest to regulators who create and enforce auditing standards, as well as preparers, auditors, and other stakeholders impacted by auditing standards.

I dedicate this dissertation to my husband, Tom, my children, Kate and Sam, and my parents,
Tom and Gerrie.

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CHAPTER 1: INTRODUCTION

“The (Auditing Standards Board) [ASB] shall be alert to new opportunities for auditors to serve the public, both by the assumption of new responsibilities and by improved ways of meeting old ones, and shall as expeditiously as possible develop standards and procedures that will enable the auditor to assume those responsibilities.”(Carmichael 1982)

Have auditing standard setters been responsive in serving the public? The financial accounting literature documents that accounting standard setters issue accounting standards in response to public and regulatory concerns (Kothari et al. 2010; Gipper et al. 2013). However, with the notable exception of analytical work by Ye and Simunic (2013), there is little research on the determinants of auditing standard setting. In this paper, I consider the responsiveness of self-regulated auditing standard setters to investor demand for audit quality. Specifically, I evaluate the association of the frequency and precision of auditing standards to transitions in the business cycle.

Bertomeu and Magee (2011) describe how demand for financial reporting quality varies across the business cycle. They assume that investors exert political pressure to improve financial reporting as business cycles fluctuate from expansion to contraction. Investors demand better information to identify good and bad investment opportunities. To obtain better information, investors demand an increase in financial reporting and audit quality. Regulators are generally sensitive to their constituents and issue regulations designed to improve financial reporting quality. Standards theory in both economics and sociology suggest standard setters issue standards to signal better (audit) quality (Nelson 1970; Power 1997; Busch 2011). However, as it is difficult for the public to evaluate a standard’s quality, the public measures responsiveness by the frequency of the standards issuance (Nelson 1970; Byington and Sutton 1991). Therefore, standard setters signal responsiveness by issuing standards (Nelson 1970;

Byington and Sutton 1991; Causholli et al. 2010).

Auditing standards are basically “certification” standards that communicate to outsiders that a firm’s results have met certain requirements. Certification standards are used to monitor agency relationships. In the case of auditing, these are the standards auditors’ reference to certify management has applied accounting principles reasonably. Agency costs, and the demand for monitoring, are procyclical (Bertomeu and Magee 2011; Westermann 2014), with demand increasing as economic expansion transitions into recession. Using sociological theory of certification standards, Power (1997) and Busch (2011) predict that when auditors are subject to more scrutiny, standard setters will issue more precise standards. Auditors and their work are more closely examined during economic contractions when the demand for monitoring increases (Bertomeu and Magee 2011).

I examine all auditing standards issued by the Auditing Standards Board (ASB) between 1939 and 2002, when the ASB was responsible for creating auditing standards for all audits in the United States.^{1,2} To test the responsiveness of the ASB, I consider both the frequency of issuance and precision of auditing standards. In Hypothesis 1, I apply Bertomeu and Magee’s (2011) predictions to the auditing profession. That is, I examine whether the ASB responds to investor concerns by issuing more auditing standards after an economic downturn. I find there is an increase in the number of auditing standards issued after the business cycle transitions into recession in response to investor demand for higher financial reporting and audit quality. I control for and find an increase in the number of auditing standards issued in response to high profile accounting scandals, as standard setters provide guidance designed to protect investors

¹ As described in Chapter 2, the ASB was preceded by the Committee on Auditing Procedures and The Audit Standards Executive Committee. This study identifies these legacy committees and the ASB as ASB.

² The Public Company Oversight Board (PCAOB) was created by the Sarbanes-Oxley Act of 2002 (Pub. L. 107-204) to oversee the audits of public companies. The PCAOB creates the auditing standards applicable in the audits of public companies and inspects the auditors of public companies for compliance.

from future fraud³ or possibly to protect the profession from liability.⁴

In Hypothesis 2, I posit that precise standards are issued in response to the transition of business cycle expansion into recession. Precise standards clearly or sharply state a procedure or process and may include detailed examples and guidance for auditors to follow. Precise standards make an audit's compliance with auditing standards easier to document and provide the auditor with a defense if an audit fails. In this study, *precise* standards clearly or sharply state procedures or processes, in contrast to *ambiguous* standards, which may be open to multiple interpretations. Precise auditing standards may "crowd out" auditor judgment in designing audit procedures and tests, resulting in "check the box" audits. Ye and Simunic (2013) consider public and auditor preferences for auditing standard precision in developing auditing standards. They predict that auditing standard setters prefer precise standards to provide auditors with a defense against litigation for failure to conduct an adequate audit. Precise auditing standards also signal audit quality and that preference is stronger for larger auditing firms. They argue that less precise auditing standards allow auditors to minimize the cost of conducting an audit. It is an empirical question as to whether auditing standard setters will issue relatively more precise auditing standards to protect against litigation or whether they will issue relatively less precise auditing standards to allow auditors to minimize auditing costs in the aftermath of an economic downturn or recession. Ye and Simunic (2013) assert that regulatory enforcement impacts these preferences. Thus, I control for enforcement as measured by the Securities and Exchange Commission's (SEC's) Accounting and Auditing Enforcement Releases (AAERs) and

³ For example, Statement of Auditing Procedure (SAP) 1 requires auditors to observe the client's counting of their physical inventory. This standard was in response to the McKeesson & Robbins scandal in which auditors relied on accounting records instead of observing the actual inventory. Statement on Auditing Standards (SAS) 99, Considerations of Fraud in a Financial Statement Audit, was issued in response to the Enron and WorldCom scandals in the early 2000s.

⁴For example, Statement of Auditing Standard (SAS) No. 83 requires that auditors obtain an engagement letter detailing the nature and scope of the audit.

presidential political party affiliation. To test this hypothesis, I create a measure of auditing standard precision that considers new compliance procedures, an expansion of auditor responsibility, an increase in the specificity of the auditor report and level of detailed guidance. While I find evidence of auditing standard setters responding to fluctuations in the business cycle, the response is greater to the regulatory environment and the influence of BigN auditors.⁵ Interestingly, while the 1970s reformation of the ASB was to reduce BigN audit firms' influence and increase the influence of other constituents, their influence is stronger since the reformation. Consistent with Ye and Simunic's (2013) prediction, fewer precise auditing standards are issued as the regulatory environment changes, as measured by AAER enforcement and the change to a Democratic president.

To control for changes in the frequency of auditing standards over time, in Hypothesis 3 I posit that the proportion of precise auditing standards issued increases following the transition into recession. However, the results do not support a relationship between the proportion of precise auditing standards and recession. Consistent with a decrease in the frequency of precise standards issuance as regulatory enforcement actions increase, the proportion of precise standards also decreases. Auditing standards became more precise in response to the election of a Republican president and the reformation of the ASB in the 1970s. These results are consistent with auditing standard setters signaling audit quality by issuing precise (tougher) auditing standards. Taken together, auditing standard setters prefer less precise auditing standards, perhaps at the expense of increased protection from litigation and regulatory enforcement

⁵ The BigN audit firms are Deloitte Touche Tohmatsu Limited, EY (formerly Ernst & Young), KPMG, and PricewaterhouseCoopers LLP. Prior to its demise in 2002, Arthur Anderson LLP was included as a BigN firm. Legacy firms include Arthur Young & Co, Coopers & Lybrand LLP, Deloitte Haskins & Sells, Deloitte & Touche LLP, Ernst and Ernst, Ernst & Young LLP, Ernst & Whinney LLP, Haskins & Sells, KPMG Peat Marwick LLP (formerly known as KPMG Peat Marwick, Peat Marwick Main & Co., Peat Marwick & Mitchell & Co.), Lybrand, Ross Brother & Montgomery, Price Waterhouse LLP, Touche, Ross Bailey & Smart, and Touche Ross & Co.

actions.

This study contributes to the literature in three ways. First, it provides descriptive evidence of changes over time in the frequency with which auditing standards are issued. The results provide evidence of changes in the power of various constituents. Regulators and BigN auditors' influence has strengthened as the accounting standard setters' influence has moderated. Second, I provide evidence that private auditing standard setters were responsive to investor and regulatory concerns of decreased audit quality, including changes in the economy. Third, the results provide some support for analytical theories of auditing standard setting. Specifically, I find support for the Bertomeu and Magee (2011) prediction that auditing standard setters, as delegated regulators, respond to investor demand for higher financial reporting quality. In addition, I find support for the Ye and Simunic (2013) prediction that auditing standard setters respond to increases in regulatory enforcement toughness by issuing less precise standards. This study should be of interest to regulators responsible for creating and enforcing auditing standards, as well as preparers, auditors, and other constituents impacted by auditing standards.

The paper is organized as follows. In Chapter 2, I provide a brief discussion of regulatory models and auditing standard setting and develop the hypotheses. In Chapter 3, I describe the sample and research design. In Chapter 4, I present the results and in Chapter 5 provide the conclusion. Appendix 1 provides a listing of the acronyms used. The variables are defined in Appendix 2. Appendix 3 defines precise features and identifies example auditing standards. The tables of results are presented in Appendix 4.

CHAPTER 2: BACKGROUND AND HYPOTHESES DEVELOPMENT

As the professional association of public accountants, the American Institute of Certified Public Accountants (AICPA)⁶ is responsible for representing their members' interests. The AICPA recognizes the primary value of public accountants is its "public watchdog" role.⁷ In their book, *Ethical Standards of the Accounting Profession*, Carey and Doherty (1966), AICPA staff, describe general principles to guide the public accountant. They summarize these standards as a promise to protect the public in performing their work.

"A code of professional ethics is a voluntary assumption of self-discipline above and beyond the requirements of the law. It serves the highly practical purpose of notifying the public that the profession will protect the public interest. The code in effect is an announcement that, in return for the faith which the public reposes in them, members of the profession accept the obligation to behave in a way that will be beneficial to the public" (Carey and Doherty 1966, 3).

The AICPA establishes membership conduct standards (code) in fulfillment of its "watchdog" role. The standards focus on promoting and preserving the quality of the Certified Public Accountant's (CPA's) product, the audit. Although auditing relies on accounting information, auditing verifies what accounting measures and communicates (Mautz and Sharaf 1961, 14–15; Knechel et al. 2013). The purpose of the current study is to understand how auditing standards are *created*, and takes as given that auditing standards are created to maintain or improve audit quality. In this chapter, I discuss the models of regulation and standard setting and provide a

⁶ The AICPA started as the American Association of Public Accountants in 1887. After various mergers with other professional accounting associations, it became the American Institute of Accountants (AIA) in 1917. The AIA merged with the American Society of Certified Public Accountants in 1936 to form the AICPA. I refer to AICPA and its legacy organizations as the AICPA.

⁷ In the *United States v. Arthur Young & Co.*, 465 U.S. 805 (1984), the Supreme Court reaffirmed the SEC delegation of protecting public investors.

review of the history of auditing standard setting in the U.S. I close by discussing three hypotheses.

2.1. Models of Regulation and Standard Setting⁸

Much of the literature on financial accounting uses economic models of regulation to evaluate the role that politics play in standard setting (Gipper et al. 2013). These studies view the political process as special interest groups lobbying for self-interested reasons (Zeff 2002; Gipper et al. 2013). In a review of this literature, Gipper, Lombardi, and Skinner (2013) identify two⁹ major regulatory models used by researchers to explain accounting standards: regulatory capture and ideology. In the regulatory capture model, regulation favors the interests of the regulated. In other words, the regulator works to advance the interests of the regulated rather than the public. Financial Accounting Standards Board (FASB) standards affect many different constituencies (e.g., various types of auditing firms and their various clients, investors, creditors, and analysts). Research in this area has focused on FASB board members' political power and various constituencies' lobbying campaigns. Watts and Zimmerman (1978) examine comment letters on accounting standards to document firms' incentives to lobby. Using comment letters on pension accounting (Statement of Financial Accounting Standards No. 87), Francis (1987) models the determinants of firms' decisions to lobby. Allen et al. (2012) submit that BigN accounting firms are concerned about decreased "reliability" in FASB proposed accounting standards, documenting that firms lobby on their own behalf, as well as their clients. Allen and Ramanna (2013) document accounting standard setters' preferences' for "reliability" and "relevance" based on professional and personal characteristics. Since the FASB reflects these

⁸ This section draws heavily on Kothari et al. (2010) and Gipper et al. (2013).

⁹ They identify a third model, the public interest model, but find researchers rely more on the regulatory capture and ideology models (Gipper et al. 2013).

various constituencies, it is unclear who captures the standard setter (Gipper et al. 2013). In addition, the positions of various audit clients may vary based on the proposed standard. In other words, an auditing firm will not necessarily present a consistent position on any given accounting standard (Haring 1979; Brown 1981; Gipper et al. 2013).

Alternatively, employing the ideology theory, researchers suggest a standard setter bias toward certain types of rules rather than toward certain entities. For example, in accounting standard setting, there may be a bias toward fair value or historical cost (Gipper et al. 2013). By understanding the bias of the standard setter, those subject to the standard can increase their lobbying effectiveness.

Gipper et al. (2013) propose another model: the regulatory model of accounting rules. They argue that as standards move from a process based on general acceptability to one based on formal regulation, the standards become focused on compliance rather than outcomes. Evidence of compliance to the standard becomes the measure of quality. This model led to the literature comparing rule-based accounting standards with principle-based accounting standards (Ball 2009; Mergenthaler 2009; Donelson et al. 2012; Dichev et al. 2013).

Gipper et al.'s (2013) regulatory model is related to sociological theories of regulation and contracting theory. Auditing standards are an example of “certification” standards designed to govern complex and distant economic transactions (Busch 2011, 204–205). Busch (2011) proposes that certification standards exist to induce trust between two or more parties and that trust in the *certifier* (auditor) transfers to trust in the certification *results* (audit). Trust established through certification can be used as a tool to reduce the risk that arises as ownership becomes diffuse or the distance between managers and owners increases. Management reduces risk by hiring an auditor, while investors reduce risk by demanding an audit. Similarly, auditing

standards may also be viewed as a contract between the auditor and the investing public. Consistent with contracting theory, complex transactions are governed by incomplete or less precise contracts (Williamson 2000; Williamson 2002). Conversely, as transactions become more routine or if there is a lack of trust between the parties, the contract becomes more precise to allow for efficient monitoring of contract compliance (Williamson 1993; Williamson 2000; Williamson 2002).

To reduce risk of investments losses, investors also apply political pressure to standard setters to hold auditors accountable (Power 1993; 1997, 31; O'Neill 2002). Power (1997) and O'Neill (2002) propose that standard setters respond to these pressures by designing standards to increase auditor accountability. Byington and Sutton (1991) hypothesize that one likely response to political pressure is an increase in the number of standards, which may be viewed by investors as a proxy for the standard setter's response. Another response is to issue more precise standards. Precise standards clearly or sharply state a procedure or process and may include detailed examples and guidance for auditors to follow. These types of standards make the audit auditable and provide the auditor with a defense if an audit fails (Power 1997, 33; O'Neill 2002; Busch 2011, 217). An auditable audit is one where another monitor replicates the first auditor's work. If the audit subsequently fails, the auditor is able to provide a due diligence defense against charges of an inadequate audit. Consistent with contract theory, ex post consequences replace ex ante incentives (Williamson 2002). In other words, precise standards allow for ex post enforcement actions.

Since early standards are typically voluntary, standard setters must prove their legitimacy by adopting standards that are cost-effective (Brunsson and Jacobsson 2000). Private organizations with expertise in the subject area, such as a professional association, often create

standards (Brunsson and Jacobsson 2000, 40 – 49). As a result, early standards often codify professional norms, and in recognition of the general acceptability of current practice, are flexible and cost-effective. To achieve legitimacy, standard setters need a broad base of support and agreement on standards (i.e., standards must be generally acceptable to parties that rely on the standard). Certification standards, such as auditing standards, must satisfy diverse parties such as investors, firms, and auditors. Flexible, or less precise, standards allow the auditor to tailor procedures to the specific needs of each party and still comply with the standard (Watts 2006; Brunsson et al. 2012; Ye and Simunic 2013). Using related economic arguments, Causholli and Knechel (2012) argue that an audit is a credence good. It is difficult for consumers to evaluate a credence good's quality because they must rely on the producer to recommend and provide the service. In addition, short of a failure, consumers cannot assess the delivered service's quality (Nelson 1970; Causholli and Knechel 2012). As a result, to signal quality, the producer invests in branding (Darby and Karni 1973; Dulleck and Kerschbamer 2006). Auditing standard setters invest in the audit brand by issuing standards. These standards signal the auditors can be trusted to deliver suitable quality.

To summarize, sociological and economic theory and prior auditing research indicates that auditing standard setters, as industry representatives, develop standards that are acceptable to the profession and responsive to constituents' concerns. "General acceptability" guides standard setters when creating standards. Auditing standard setters consider both frequency and precision in responding to investor, regulators and the auditing profession.

2.2. The Auditing Standard-Setting Process

The evolution of auditing standards is consistent with regulation and standard setting

models. Beginning in 1917, the AICPA provided voluntary auditing guidance through pamphlets that summarized generally accepted practice. Congress began regulating the accounting and auditing professions when it made the SEC responsible for creating accounting and auditing standards as an outgrowth of the Securities Act of 1933 and Securities Exchange Act of 1934. The SEC delegated both auditing and accounting standard setting to the professional association. In 1939, the AICPA created the Committee on Auditing Procedures (CAP) to set auditing standards and the Committee on Accounting Procedures to set accounting standards. CAP members were volunteers viewed as experts (e.g., the partners of the largest auditing firms). The first CAP standard was a codification (summary) of current auditing practices, or generally accepted auditing standards (GAAS), and was approved by the entire AICPA membership.

In response to another wave of accounting scandals, FASB, the independent organization that establishes financial accounting standards governing nongovernmental entities' financial report preparation, replaced the AICPA Accounting Principles Board (APB)¹⁰ in 1973. Although FASB membership was smaller than APB membership, it reflected the interests of a broader set of users and preparers than did APB. Relatedly, to signal a new standard setting regime, in 1973 the AICPA consolidated CAP's position as the senior committee responsible for interpreting GAAS, renaming it the Audit Standards Executive Committee (AudSEC). SAS No. 1, a codification of all SAPs, was the first of 23 standards issued by AudSEC. The ASB replaced AudSEC in 1978.¹¹ ASB adopted a more inclusive standard setting process than CAP, created an advisory council, and replaced AICPA committees with task forces that focused on new and emerging issues. As presented in figure 1, the ASB recognizes the accounting profession, users of audit reports, other standard setters and regulators as its constituents (Carmichael 1982).

¹⁰ In 1959, the AICPA replaced the Committee on Accounting Procedures with the Accounting Principles Board, which was also a committee of the AICPA.

¹¹ For simplicity, I refer to all auditing standard setting bodies in this study as ASB.

Figure 1
ASB Constituents



However, like CAP members, ASB members are volunteers with extensive auditing experience. Two-thirds of the 15-member board is in public practice (AICPA 1978).¹² The ASB relied on active auditors to identify topics of potential auditing standards. To encourage public participation in setting standards, both FASB and ASB substantially adopted the Administrative Procedure Act (APA).¹³ The APA requires a notice of proposed rulemaking and a public comment process before the rule is adopted. The notice of the proposed rule requires a

¹² In 2004, the ASB expanded membership to 19 and allocated specific seats to different industry constituencies. Four seats are held by BigN auditors, five seats by non-BigN auditors, five seats are filled by representatives from the National Association of State Boards of Accountancy, and five seats by other public accountants, including those working in industry, government or academics (AICPA 2010).

¹³ The APA (Pub. L. 79-404) is the law that oversees rulemaking for federal agencies.

description and basis for the rule. It is standard practice to allow 60 days from the proposed rule's issuance for public comment and another 30 days for the agency to incorporate public comments before final rule issuance.

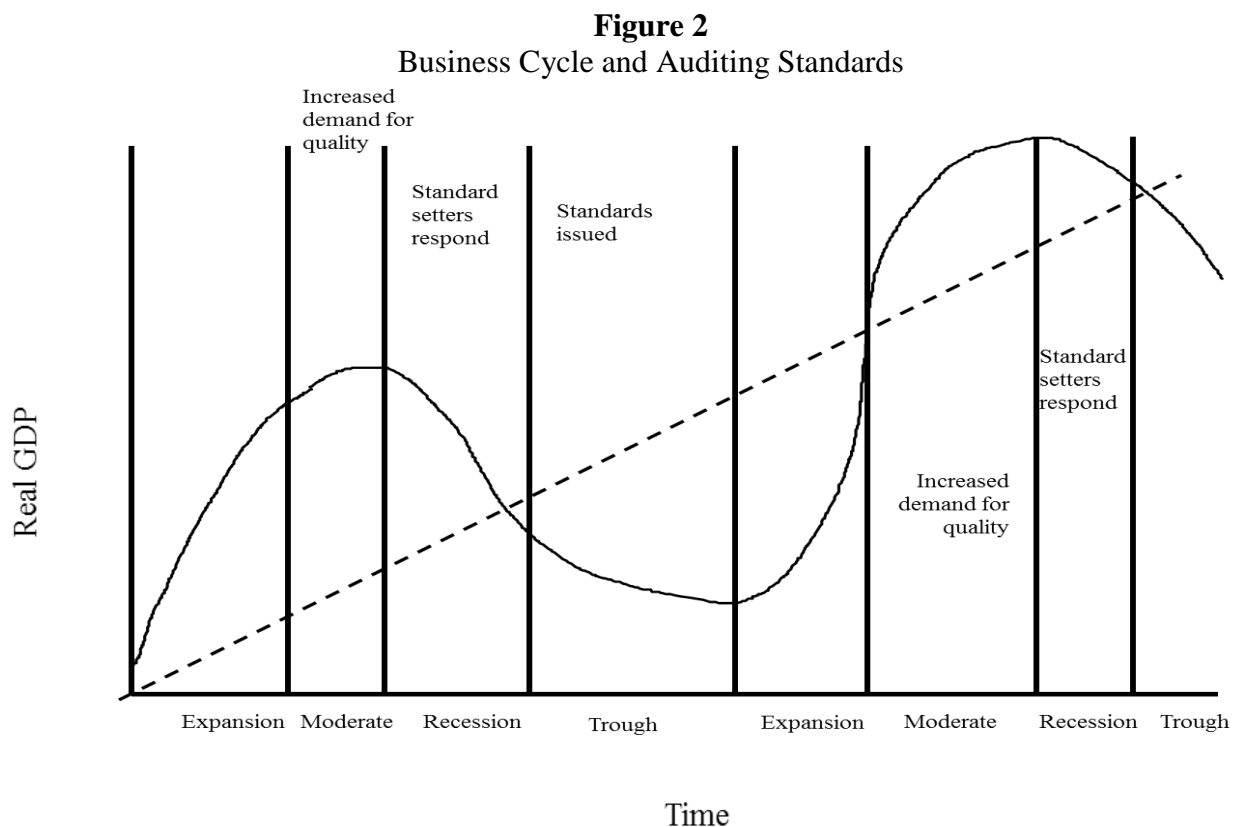
Consistent with the APA, ASB includes a proposed standard on its public agenda at least twice, inviting public comment before final approval. Therefore, the speed of standard setting varies based on the number of ASB meetings each year. The time from proposal to approval was 4–6 ASB meetings. The annual meeting frequency has varied since 1939 and approval has varied from 2 to 18 months. Every standard discloses each board member's name, the number of members approving the standard, and the names of the 1–3 primary technical staff responsible for its preparation. Board members vote on each paragraph of the standard. The final standard also discloses the detailed rationale behind a board member's dissent or qualification. Over the course of the ASB, most standards have no dissent or qualification.

2.3. Hypothesis Development

2.3.1. Hypothesis 1: Political Pressure and Auditing Standards Issuance

Auditors look to their professional association for guidance. As a result, auditing standards are issued for various reasons. Some auditing standards are in response to a new accounting standard (e.g., SAP No. 44, Reports Following a Pooling of Interests), while others are a response to a new government regulation (e.g., SAS No. 63, Compliance Auditing Applicable to Governmental Entities and Other Recipients of Governmental Financial Assistance). New business technologies and methods also result in new standards (e.g., SAS No. 3, The Effects of EDP on the Auditor's Study and Evaluation of Internal Control; SAS No. 44, Special-Purpose Reports on Internal Accounting Control at Service Organizations; and SAS No.

51, Reporting on Financial Statements Prepared for Use in Other Countries). And standards are issued to reflect expanding responsibilities, such as guidance to detect and report fraud and illegal acts (e.g., SAS No. 53, the Auditor's Responsibility to Detect and Report Errors and Irregularities, and SAS No. 54, Illegal Acts by Clients).



Standards are also issued in response to political pressure from constituents. Watts (2006) proposes that political pressure reflects market forces at work to promote and constrain private benefits sought by self-interested parties. Bertomeu and Magee (2011) describe regulators who are responsive to constituents' needs. Similarly, my definition of constituents (figure 1) does not distinguish between self-interested parties' private benefits and protection of the public. A politically sensitive regulator (auditor) responds to varying degrees to all constituents. The regulator's values and interpretations are also incorporated into their response. Investor demand

for financial reporting quality increases as business cycle expansion slows to a moderate phase, like before a recession (Bertomeu and Magee 2011). This is the same time that firm managers' preferences for reduced quality becomes stronger. In expansionary periods, firms that are not doing well try to hide poor performance, but as the expansion slows to contraction, this becomes more difficult. As businesses often fail during recessionary periods,¹⁴ investors evaluate whether a poor quality audit is responsible for their inability to detect impending failure. Thus, a recession may trigger political pressure by investors.

Much of the accounting standard setting literature focuses on the association between accounting standards' content and political pressure (Watts and Zimmerman 1978; Francis 1987; Allen et al. 2012; Allen and Ramanna 2013). However, Byington and Sutton (1991) argue that accounting and auditing standards are issued to prevent regulatory oversight of the accounting and auditing profession. Their study focuses on four events they assert put the accounting and auditing profession's self-regulation at risk. The first event, Accounting Series Release 4 in 1938, delegated accounting and auditing standard setting to the respective professions. The second, in 1971, was legislation providing guidance on investment tax credit accounting. Both the 1978 Moss-Metcalf Hearings and the 1985 Dingell Hearings considered establishing oversight of the auditing profession, which became the basis of the PCAOB mission in 2002. Unlike Byington and Sutton (1991), in this study I consider explanations other than avoiding regulatory oversight for issuing auditing standards. Like accounting standards, auditing standards promote investor confidence in financial reporting and protect auditors from costly litigation and regulatory oversight. This implies that like *accounting* standard setters, *auditing* standard setters

¹⁴ The National Bureau of Economic Research (NBER) defines a recession as "a significant decline in economic activity spread across the economy, lasting more than a few months, normally visible in real GDP, real income, employment, industrial production, and wholesale-retail sales." (NBER, http://www.nber.org/cycles/general_statement.html accessed 12/28/2013).

may also be responsive to political pressure from users other than regulators.

However, ASB differs from FASB in several respects. For example, ASB has always been a committee of the AICPA, the auditor trade association, while accounting standard setting by FASB only started in 1972. As a result, ASB consists solely of auditors, while the composition of FASB's membership reflects various constituencies. The change in the membership may have caused accounting standard setting to become more overtly political. As the ASB membership composition did not change, it is not clear whether auditing standard setting would also become more political.

To strengthen independence, FASB has seven full-time employees with five-year appointments, which may be renewed for five more years. In contrast, to identify issues quickly, ASB has 15 volunteer members, currently in public practice, who serve part-time for up to three years. Due to the limited scope of auditing, the AICPA concluded that unlike accounting standards, there was little interest outside the auditing profession in auditing standards (AICPA 1978). However the AICPA set up an advisory council to seek views from the users of audited financial statements. The advisory council included securities lawyers, financial analysts, governmental officials, bankers, underwriters, and corporate executives (Carmichael 1982).¹⁵ Independent commissions and congressional hearings in the 1970s and 1980s, as well as the PCAOB creation in 2002 call the ASB's responsiveness to investor concerns into question. In 1978, the Cohen Commission recommended significant changes to the standards setting process, although granted the effectiveness and responsiveness of auditing standard setters (Cohen 1978; AICPA 1978). In contrast, Byington and Sutton (1991) argue that the 1978 Moss and Metcalf hearings and the 1985 Dingell hearings are evidence the auditing profession was not responsive

¹⁵ In the post PCAOB era, the advisory council has come to be dominated by regulators of these users.

to investor concerns.¹⁶ Thus, the response of auditing standard setters to political pressure is an empirical question.

An audit, a credence good, is difficult for the public to evaluate for quality (Causholli et al. 2010; Causholli and Knechel 2012). By extension, investors are also unable to evaluate the quality of auditing standards. In their study of the accounting profession's efforts to avert government oversight, Byington and Sutton (1991) argue that the public likely views the number of standards issued as a proxy for the intensity of the profession's response. In other words, auditing standard setters will issue more standards to signal the seriousness of the topic, as well as the appropriateness of their response.

In the U.S., the late 1960s and 1970s were periods of accounting and political scandals and the start of economic deregulation. Wage, price, and other economic controls were removed for several industries (e.g., transportation, oil and gas, and financial institutions). In addition, the federal government looked into anticompetitive practices (e.g., the prohibition against advertising and solicitation of clients) in the auditing profession. FASB and the ASB were created as a political response to the deregulatory efforts and the political and accounting scandals. The AICPA kept control of the auditing standard setting, but not the accounting standard setting. Power (1997, 31) asserts that regulators' withdrawal from rule (standard) setting (i.e., deregulation) results in the delegation of greater regulatory power to audit standard setters. In the case of auditing standard setting, the SEC identified the ASB as the official source of auditing standards. With this delegation of power, the political pressure on audit standard setters likely increased, resulting in more standards.

As representatives of the audit profession, the ASB issues auditing standards to guide auditors in their work and to promote the profession to the investing public. Changes in the

¹⁶ Starting in 2002, the PCAOB creates auditing standards for audits of publicly-held firms.

1970s suggest that the public and regulators became more important constituents to the ASB, while auditors had been more important before the 1970s. As the SEC delegated auditing standard setting to the ASB to restore investor confidence in financial statements, the ASB should be responsive to the concerns of the investing public when developing auditing standards. As it is difficult for investors to evaluate an audit and the auditing standards governing the audit, I propose the following in the null form:

Hypothesis 1: *Ceteris paribus*, auditing standard issuance is not related to the business cycle.

2.3.2. Hypothesis 2: Political Pressure and Auditing Standards Precision

Hypothesis 1 examines the association between political pressure applied in the business cycle and the frequency with which auditing standards are issued. Political pressure also influences the properties of the standards and is the focus of Hypothesis 2. As discussed above, certification standards, which are tools designed to increase trust, may also be a way to decrease risk (Busch 2011, 215). Investors reduce their risk of relying on bad information by demanding an audit. Managers reduce the risk of being charged with failure to tell investors of relevant information by buying an audit. Auditors reduce their risk of being charged with conducting an inadequate audit by relying on auditing standards that provide a benchmark of compliance with a generally accepted level of quality.

Research in standards theory provides evidence there is greater general acceptability and a higher rate of adoption (Brunsson et al. 2012) when standards are less precise and adoption is voluntary.¹⁷ Less precise auditing standards allow auditors to exercise greater judgment in

¹⁷The ASB considered several precise requirements in SAS No. 47, Audit Risk and Materiality, that were not included in the final standard due to the lack of majority agreement (Kinney Jr 2005).

developing auditing tests and procedures and minimize costs in conducting the audit. Ye and Simunic (2013) argue that standard setters prefer less precise standards when they are subject to regulatory enforcement actions that are not ideal. In addition, less precise auditing standards allow the auditor to vary audit effort to match investor requirements (Ye and Simunic 2013). The ability to vary audit effort also allows the auditor to compete with other auditors on price .

However, less precise standards increase an auditor's risk of being charged with conducting an inadequate audit. When standards are precise, it is easier for regulators to monitor auditors (Power 1997, 33). Auditors and those who regulate them can then cite procedures rather than judgment in support of audit conclusions (Power 1997, Chapter 5; Busch 2011, 217). Thus, compliance with precise standards provides a "due diligence" or "safe harbor" defense. Precise standards also protect auditors from charges of favoring one special interest group over another. When regulatory enforcement is either too tough or too loose, auditing standard setters prefer less precise standards. Too tough of standards may require procedures that do not provide support for the auditor's conclusion. Standards that are too loose may be inadequate to inspire trust by the investing public. As standard setters issue standards to signal to users that an audit is valuable to them, standard setters will adjust the issue with more precise standards in response to regulatory enforcement.

To summarize, sociological and auditing standards theorists suggest that standard setters issue less precise auditing standards to ease auditing standard adoption. Auditing standards setters also prefer less precise standards to minimize audit effort and to apply proper procedures to the economic situation. However, constituent auditors may want more precise standards as protection from charges of inadequate procedures that result in litigation or regulatory actions and to signal audit quality. I propose the following in the null form:

Hypothesis 2: Ceteris paribus, precise auditing standard issuance is not related to the business cycle.

2.3.3. Hypothesis 3: Political Pressure and the Proportion of Precise of Auditing Standards

In Hypotheses 1 and 2, I consider that the demand for auditing standards may differ from the demand for precise auditing standards. In Hypothesis 3, I consider the proportion of precise auditing standards to gain insight into the strength of demand for precise auditing standards. I propose the following in the null form:

Hypothesis 3: Ceteris paribus, the proportion of precise auditing standard is not related to the business cycle.

CHAPTER 3: SAMPLE DESCRIPTION AND RESEARCH DESIGN

In this chapter, I examine auditing standard setting from 1939 to 2002 (63 years), when the profession was regulated by ASB and AICPA membership sanctions. CAP issued Statements on Auditing Procedures (SAP) from 1939 to 1972. The first Statement of Auditing Standards (SAS) was issued in November 1972. Therefore, I explore differences in the two regimes and the resulting standards issued. For ease of discussion, I refer to the two regimes based on the standards issued (SAP and SAS). I provide descriptive data about the ASB and its standards. I also discuss the research design and develop models to test the three hypotheses.

3.1. Composition of ASB

The financial accounting standard setting literature focuses on FASB and SEC board composition (Kothari et al. 2010; Gipper et al. 2013; Allen and Ramanna 2013; Bertomeu and Cheynel 2013); however there is little information on auditing standard setters. In Table 1, I describe the ASB and auditing standards. There have been over 350 volunteer ASB board members from 1939 to 2002; many more volunteers have been involved in developing and issuing auditing standards through advisory councils and task forces. ASB membership has ranged from 11 to 25 people, with a mean (median) of 19 (18) people. In the 1970s reformation, ASB reduced its membership to 15 to be more nimble in standard setting (AICPA 1978).¹⁸ The mean (median) term is 2.8 (3) years, and members served from 1 to 9 years. ASB issued a mean (median) of 7.5 (6) standards per member, with a range of 1–29 standards per member.¹⁹ There were 22 ASB chairs during the sample period, with 18/22 (82%) representing a BigN firm. Interestingly, there were 11 chairs (9 BigN and 2 non-BigN) before and after the 1972

¹⁸ As noted in footnote 12, in 2004 ASB membership increased to 19.

¹⁹ Standards issued when the member was chair are included.

reformation. ASB chairs served a mean (median) term of 2.1 (2) years, issuing a mean (median) 7.1 (5.5) standards. Non-BigN chairs presided over the fewest standards issued (1) and the second most (18) of all chairs.

Figure 3
Number of Auditing Standards Issued Each Year

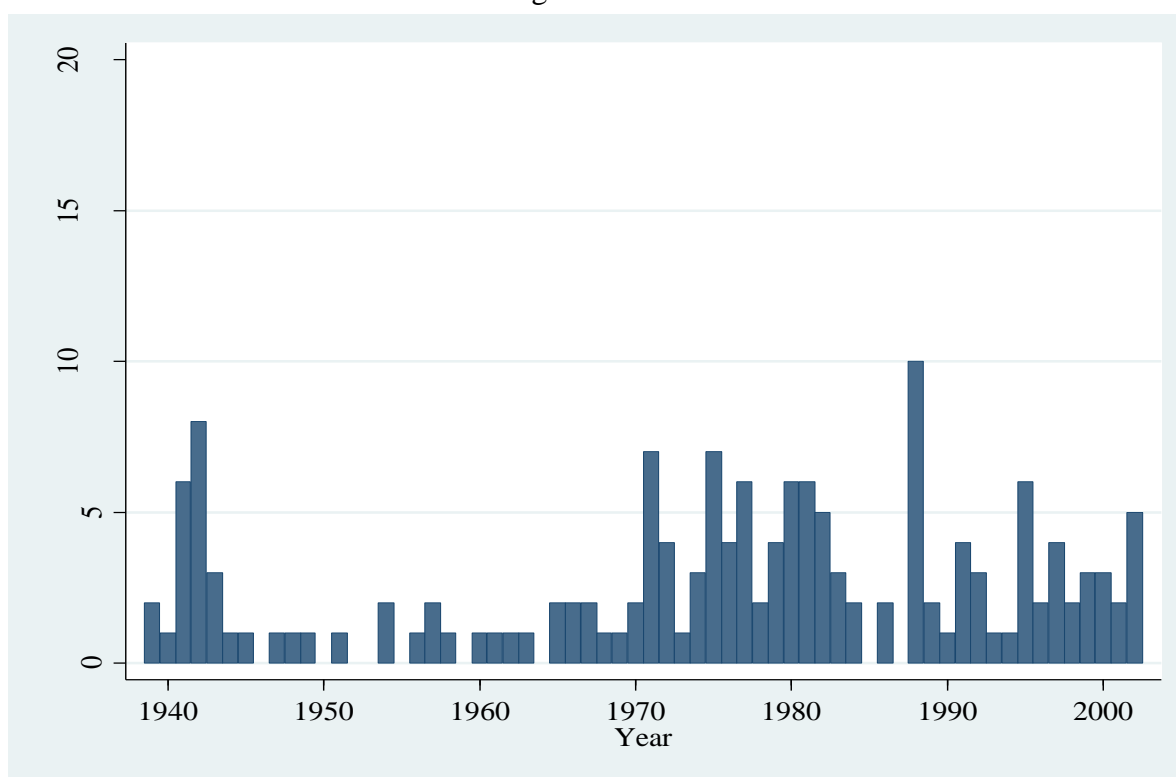


Figure 3 presents the number of auditing standards issued each year from 1939 through 2002. The mean (median) number of SAS auditing standards a year increased to 3.3 (3) compared to 1.7 (1) SAP auditing standards. Following the banking crisis in the 1980s, the highest number of auditing standards was issued in 1988 (10). To guide federal contract reporting during World War II, the second highest number of standards (8) were issued in 1942. Figure 4 presents the number of accounting standards issued each year from 1939 through 2002. Accounting standard setting has also increased in number since the ASB reformation (which coincided with FASB formation): a mean (median) 5.3 (4) FASB accounting standards have been issued, up from 2.6 (2) APB accounting standards. Similarly, both the number and

proportion of annual “precise” standards, defined more fully in the discussion of tests of Hypothesis 2 in Chapter 3.3, have increased (see figures 5 and 6).

Figure 4
Number of Accounting Standards Issued Each Year

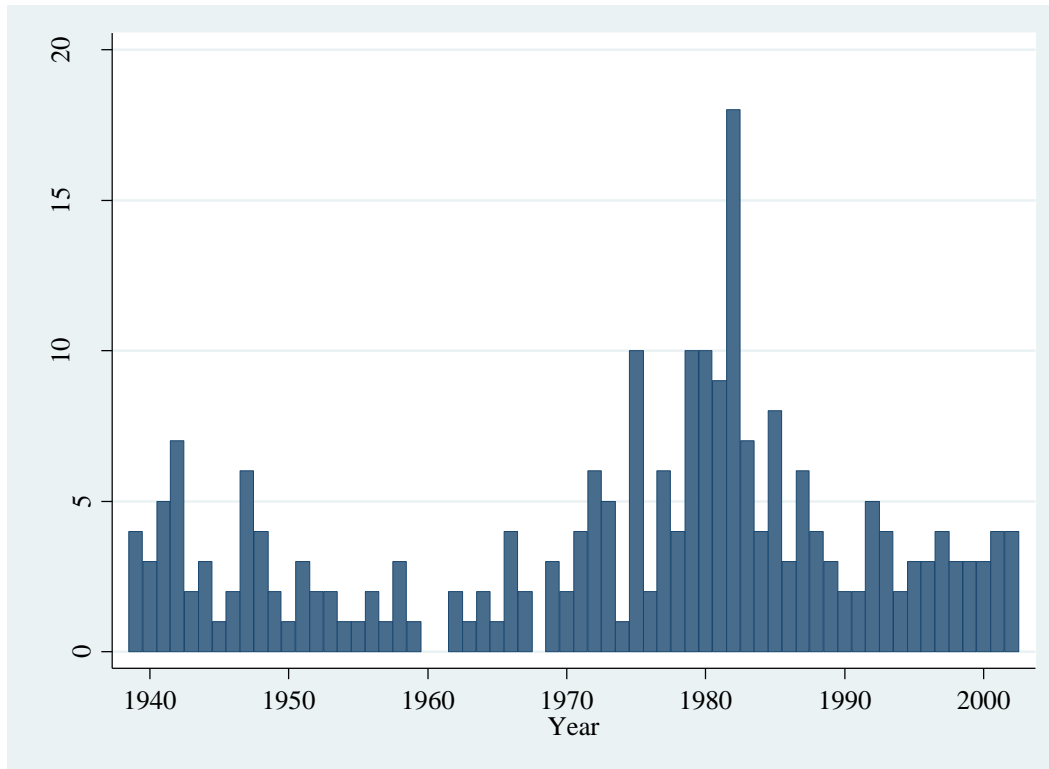


Figure 5
Number of Precise Auditing Standards Issued Each Year

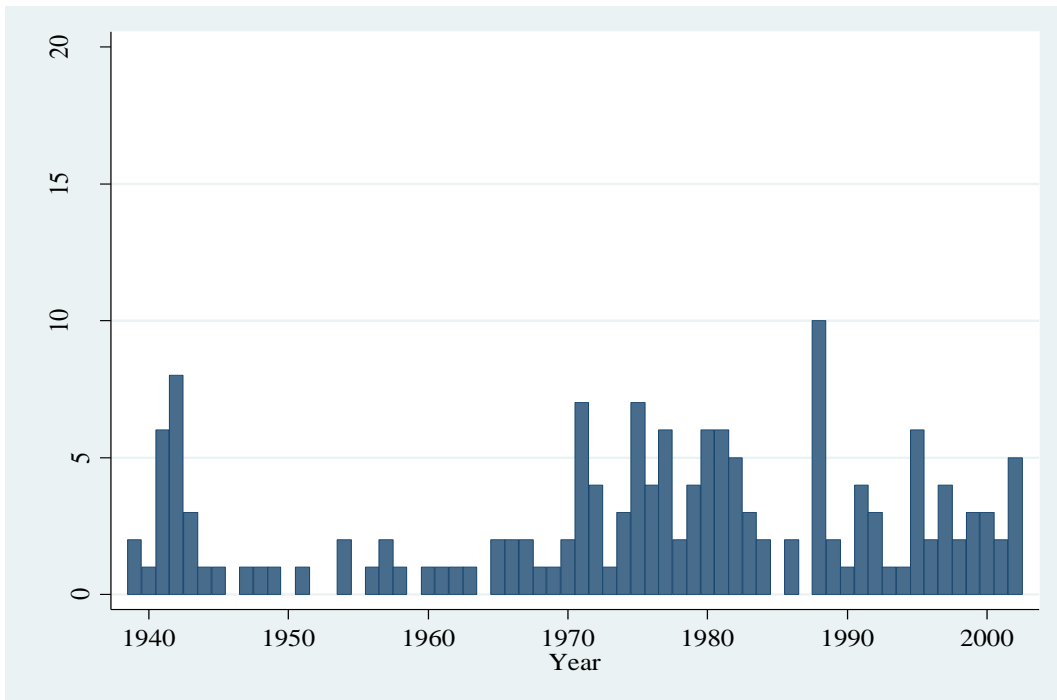
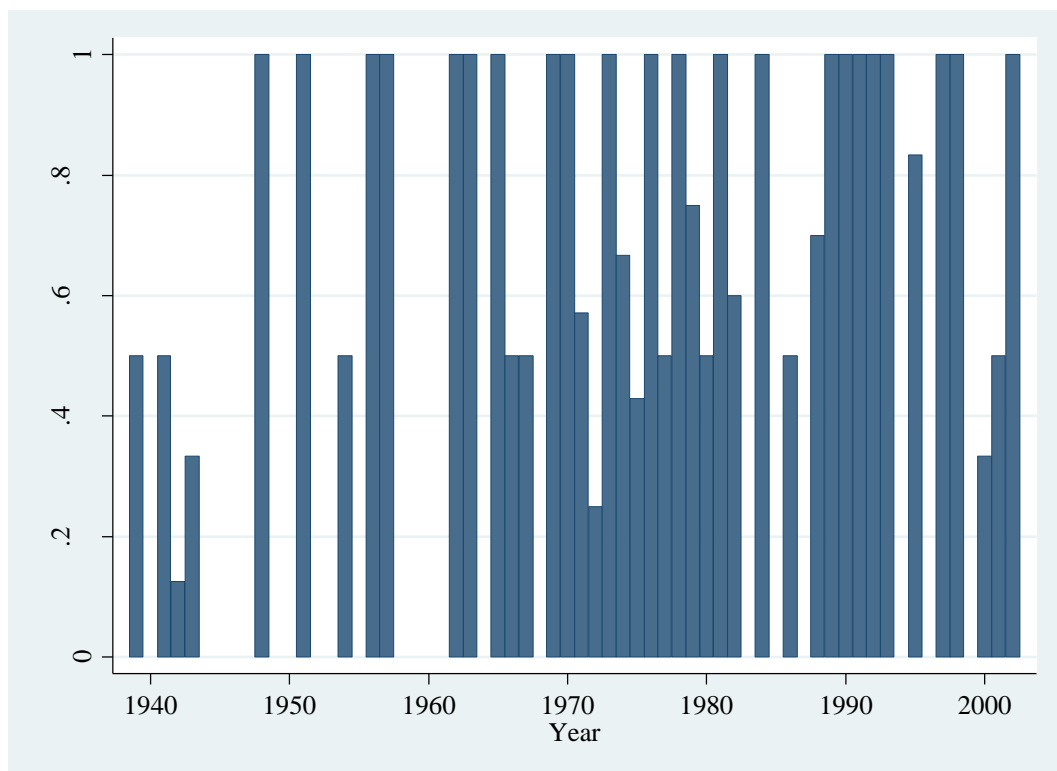
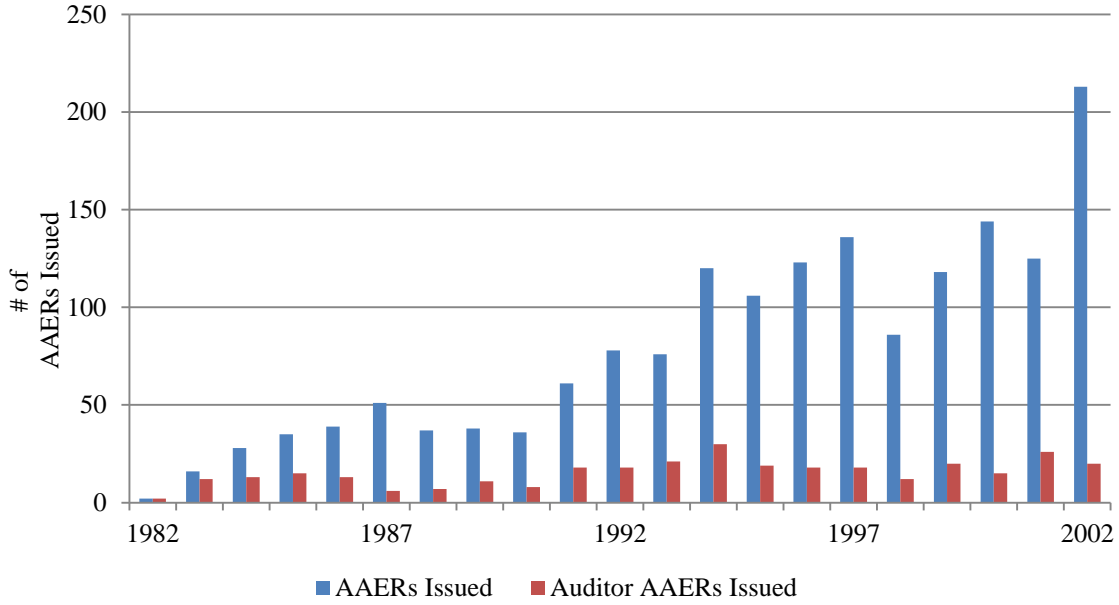


Figure 6
Precise Auditing Standards as a Percent of Total Auditing Standards Issued



The mean (median) number of precise standards have increased from 0.76 (1) SAP (before 1973) to 2.3 (2) SAS (after 1973), representing a proportional increase from of 37.8% (18.8) SAP standards to 64.4% (72.5) SAS standards. While the number of AAERs has been steadily increasing, the number of AAERs against auditors has remained relatively flat (see figure 7).

Figure 7
AAERs Issued



3.2. Test of Hypothesis 1: Political Pressure and Auditing Standards Issuance

Hypothesis 1, that auditing standard setters respond to political pressure by issuing auditing standards, is tested with a regression model as follows:

$$\begin{aligned}
 \#AuditStand_t = & \beta_0 + \beta_1 Recession_{t-1} + \beta_2 Scandal_{t-1} + \beta_3 AAERAUD_{t-1} \\
 & + \beta_4 \#AveAccStand + \beta_5 ChgtoDem_{t-1} + \beta_6 ChgtoRep_{t-1} \\
 & + \beta_7 BigNChair_{t-1} + \beta_8 SAS + \beta_9 Crisis + \beta_{10} WW2 + \varepsilon. \quad (1)
 \end{aligned}$$

The dependent variable is the number of auditing standards issued in year t , $\#AuditStand_t$. A

Poisson regression is used because $\#AuditStand_t$ is a count variable.²⁰ In the current study, the number of auditing standards issued in a year varies from 0 to 10, with 11 (17%) years where no standards were issued and 32 (50%) years where only one or two standards were issued. The independent variable, $Recession_{t-1}$, equals 1 if six months or more of the year was in a NBER defined recession,²¹ and is 0 otherwise.²² Bertomeu and Magee (2011) propose that reporting quality declines as the expansion moderates and improves as the economy enters a recession in response to demand for quality financial reporting (and audits).²³ As investors identify a slowing in the economy at the end of an economic expansion, they typically pressure auditing standard setters for higher audit quality. While the investor notes a decline in financial reporting quality occurs before an economic contraction starts, auditing standard setters need time to recognize and respond with new standards. $Recession_{t-1}$ captures the predicted lag in the response time of auditing standard setters.

3.2.1. Control Variables

Accounting scandals are widely recognized as causing accounting and auditing standards to be issued (Roth 1969; Merino and Previts 1998; Zeff 2003a; 2003b; Clikeman 2009). To control for accounting scandals, $Scandal_{t-1}$, an indicator variable that equals 1 if a major accounting scandal occurred in year $t - 1$, and is 0 otherwise is included. This study relies of the

²⁰ Count variables are non-negative integers that follow a Poisson distribution. Poisson distributions can be used to predict the probability of the number of occurrences of an event, also nonnegative integers. Poisson distributions frequently have meaningful zero responses and a low level of occurrences (Kennedy 2003, 264; Wooldridge 2010, 907).

²¹ As described in footnote 14, the NBER defines a recession as “a significant decline in economic activity spread across the economy, lasting more than a few months, normally visible in real GDP, real income, employment, industrial production, and wholesale-retail sales.”(NEBR, http://www.nber.org/cycles/general_statement.html accessed 12/28/2103).

²² If the recession spans more than one year, and less than six months were in either year, the year in which the recession started is identified as *Recession*.

²³ I re-estimate the model to test the sensitivity of the timing of the response to the contraction. Results are presented in Chapter 4.4.

accounting scandals Clikeman (2009) identifies as most significant to the formation of accounting and auditing. I corroborate and supplement this list with observations by Zeff (2003a, 2003b). Table 2 presents the accounting scandals included in this study.

AAERs are regulatory actions taken against firms and their auditors for violations of SEC and federal rules (i.e., improper accounting or violations of securities laws). Regulatory actions against firms or auditors were minimal before 1982 when the SEC started issuing AAERs. The AAER database was developed by Dechow et al. (2011) and is maintained by the Center for Financial Reporting and Management.²⁴ As the ASB represents auditors, it should be sensitive to enforcement actions against them. $AAERAUD_{t-1}$, the annual auditor enforcement actions scaled by annual total number of AAERs issued in time t , proxies for enforcement actions against auditors. Auditor AAERs are scaled by total AAERs to account for changes in total enforcement actions over time.

Auditing standard setters also develop new standards to respond to new accounting standards. Accounting standards are issued after a lengthy process and typically have a delayed implementation date. This suggests that auditing standard setters can respond concurrently.²⁵ I control for that response by including $AveAccStandards_t$, the average number of accounting standards issued in year $(t + t - 1)/2$.

Among other things, presidential elections reflect public assessment of the economy. A change in the political party of the presidency may imply public dissatisfaction with the economy's direction. Newly elected presidents outline an agenda on how to manage the

²⁴ I thank the Center for Financial Reporting and Management in providing additional assistance with the auditor-specific AAERs.

²⁵ Few auditing standards are issued in response to a specific accounting standard (e.g., SAS 28, Supplementary Information on the Effects of Changing Prices). Those auditing standards that are issued in response to a specific accounting standard are generally effective prior to the effective date of the accounting standard, if not in the same year as the accounting standard was issued.

economy. Historically, the Democratic Party prefers regulatory oversight of business, while the Republican Party prefers market forces as discipline. Thus, a political change in the presidency typically forecasts a change in the regulatory climate. To control for such a change, $ChgtoDem_{t-1}$ and $ChgtoRep_{t-1}$, which equals 1 if the election in $t - 1$ changed the political party of the presidency to Democratic or Republican, respectively, and 0 otherwise are included.

Ye and Simunic (2013) find that BigN auditors prefer standards to signal a high level of quality, while non-BigN auditors prefer the flexibility of fewer standards. Differences in auditor wealth at risk in an audit failure drive the preference for precise auditing standards. The chair of the ASB establishes the priorities of the ASB by topic and numbers of items. To control for the BigN chair, I include the indicator variable $BigNChair_{t-1}$, which equals 1 if the chair of the ASB was from a BigN firm in year $t - 1$, and is 0 otherwise.

The ASB reformed its standard setting in the early 1970s following accounting scandals and formation of FASB. To prove its responsiveness to public and regulatory concerns, I expect ASB to issue more standards under the new standard-setting regime. The first standard issued under the new regime was SAS No. 1 in 1973. I include an indicator variable, SAS , which equals 1 for years 1973 and after, and is 0 otherwise.

Banking crises are extended periods of poor economic performance, often with a high incidence of accounting scandals, including fraud (Reinhart and Rogoff 2009, 10). There is one banking crisis in this study, 1984–1991. To control for a banking crisis, $Crisis$, an indicator variable equals 1 for 1984–1991, and is 0 otherwise is included. On entering World War II, nearly all the business capacity was converted to supporting the war effort. Managing the contracts with the federal government, coupled with the reduced number of auditors (many auditors became soldiers), was difficult. To control for the impact of World War II on general

business conditions in the U.S., *WW2*, an indicator variable that equals 1 for 1942–1945, and is 0 otherwise is included.²⁶

3.3. Test of Hypothesis 2: Political Pressure and Auditing Standards Precision

The dependent variable is the number of auditing standards issued in year t , $\#AuditStand_t$. To test this relationship and to better understand auditing standard setters' preferences for precise auditing standards, I re estimate equation (1), replacing $\#AuditStand_t$ with $\#PreciseStandard_t$.

Following sociology standards theory (Brunsson et al. 2012), Ye and Simunic (2013) define as precise those standards with less ambiguity about a “due diligence” level of audit effort. Precise standards clearly or sharply state a procedure or process and are in contrast to ambiguous standards, which may be open to more than one interpretation. Precise auditing standards may “crowd out” auditor judgment in designing audit procedures and tests, resulting in “check the box” audits. I draw on the auditing practitioner and financial accounting standards literature to develop a precision measure. Douglas Carmichael (1982), AICPA vice president of auditing, observed that auditing standards have become more precise over time. This trend was most prominent in three areas: 1) an increase in the specificity of auditing procedures (new compliance requirement); 2) an expansion of auditor responsibility; and 3) an increase in the specificity of auditor reports. In the accounting literature, an analogous discussion occurs around rules versus principles. Similarly, Mergenthaler (2009) and Donelson et al (2012) identify four criteria to measure how rules-based an accounting standard is: 1) bright-line thresholds; 2) scope and legacy exceptions; 3) large volumes of implementation guidance; and 4) a high level of detail.

$\#PreciseStandard_t$ incorporates measures from both Carmichael (1982) and Mergenthaler

²⁶Twelve auditing standards were issued in 1942–1945.

(2009). Each auditing standard is coded for new compliance procedures, an expansion of auditor responsibility, or an increase in the specificity of the auditor report. Although auditing standards do not contain the bright-line thresholds or the scope and legacy exceptions of financial accounting standards, they may contain implementation guidance or contain a high level of detail. The coding scheme also includes an indicator for detailed guidance. A standard is also coded as precise if the standard's page length is in the top decile of all auditing standards or if an appendix or examples of procedures and reports are included. Thus, a standard is coded as precise if it has only one of the four features (new compliance requirement, responsibility expansion, report specificity, and length and/or appendix/examples).²⁷ (See Appendix 3 for each feature's definition and example auditing standards.)

3.4. Test of Hypothesis 3: Political Pressure and the Proportion of Precise of Auditing Standards

In Hypothesis 2, I posit that there is an association between precise auditing standards and economic recessions. As the number of auditing standards has increased over time, in Hypothesis 3 I also test the relationship of the proportion of precise auditing standards and economic recessions. I therefore estimate the following model:

$$\begin{aligned} \text{PreciseStd}_t = & \gamma_0 + \gamma_1 \text{Recession}_{t-1} + \gamma_2 \text{Scandal}_{t-1} + \gamma_3 \text{AAERAUD}_{t-1} \\ & + \gamma_4 \text{ChgtoDem}_{t-1} + \gamma_5 \text{ChgtoRep}_{t-1} + \gamma_6 \text{BigNchair}_{t-1} \\ & + \gamma_7 \text{\#AveAccStand}_t + \gamma_8 \text{SAS} + \gamma_9 \text{Crisis} + \gamma_{10} \text{WW2} + \varepsilon. \end{aligned} \quad (2)$$

I use ordinary least squares (OLS) to measure the association between political pressure and precise auditing standards because the dependent variable, *PreciseStd_t*, is not a count

²⁷To test the sensitivity of the measure of precision, in Chapter 4.4.2, a standard is coded as precise if it has more than one of the four features.

variable; it is the ratio of the number of precise auditing standards issued in year t scaled by the total number of standards issued in year t , $\frac{\#PreciseStandard_t}{\#AuditStandard_t}$. $\#PreciseStandard_t$ is the sum of the number of precise standards in year t , the dependent variable in Hypothesis 2. The denominator is $\#AuditStandard_t$, the dependent variable in Hypothesis 1. I scale the number of precise auditing standards to control for changes in the frequency of standards over time. The independent variable of interest is $Recession_{t-1}$.

3.4.1. Control Variables

In addition to issuing proportionally more precise auditing standards in response to a recession, auditing standard setters will issue more precise standards in response to accounting scandals. Precise standards provide a defense against litigation by making the audit more auditable. Thus the equation 2 includes $Scandal_{t-1}$.

When third-party regulators, such as the SEC, enforce compliance with an auditing standard, enforcement efforts against firms and their auditors alter compliance incentives and indirectly influence the nature of the standard (Brunsson and Jacobsson 2000). Based on an analytical model, Ye and Simunic (2013) suggest an association between auditing standards precision and enforcement. They posit that when enforcement of standards toughens, auditors prefer less precise standards to preserve the flexibility to match the standard with economic reality and to minimize audit effort.²⁸ I include $AAERAUD_{t-1}$, the annual auditor enforcement actions scaled by annual total number of AAERs issued in time t , as a proxy for enforcement actions against auditors. Similarly, the regulatory priorities in the U.S. are broadly set by the

²⁸ Power (1997, 28) observes that an audit provides assurance of the credibility of the financial statements subject to the cost of the audit. Ye and Simunic (2013) posit that an auditor commits to the highest standard his wealth permits. An investor observes the auditor's wealth and hires an individual who matches their need for flexibility.

president. To proxy for a change in regulatory priorities, I include $ChgtoDem_{t-1}$ and $ChgtoRep_{t-1}$, which equals 1 if the election in $t - 1$ changed the political party of the presidency to Democratic or Republican respectively, and 0 otherwise.

Ideology regulatory theory asserts that BigN firm representation on the ASB board may provide insight on auditing standard precision. Ye and Simunic (2013) theorize that BigN firms have a bias toward precise auditing standards to protect themselves from litigation and to signal the quality of their work when the firm can influence standard enforcement. When these firms cannot influence regulatory enforcement, they prefer less precise standards; precise standards may result in over auditing. Since the ASB chair sets the standards agenda, I include an indicator variable, $BigNchair_{t-1}$, which equals 1 if the ASB chair in year $t - 1$ is from a BigN firm, and is 0 otherwise.

Although auditing standard setters develop standards in response to new accounting standards, it is unclear what impact these standards may have on an auditing standard's precision. I consider that response by including $AveAccStandards_t$, the average number of accounting standards issued in year $t + t - 1$.

The ASB reformation in the early 1970s resulted in procedures designed to increase participation in auditing standard setting. Increased participation allows for more intense political pressure, thus the precision of standards will likely increase as well. Thus, equation 2 includes SAS , the proxy for the more inclusive standard setting regime and $Crisis$ and $WW2$. Recall, the most auditing standards were issued during the 1980s banking crisis and World War II and it is important to control for these unusual conditions.

CHAPTER 4: EMPIRICAL RESULTS

4.1. Tests of Hypothesis 1

Table 3 presents the results of the Hypothesis 1 test. Incident rate ratios (IRRs)²⁹ are presented for ease of discussion. I use the Newey-West correction for standard errors as the sample is a time series and may display autocorrelation. On average, an ASB member serves 2.8 years, which rounds to a lag of three years for the Newey-West correction.³⁰ To better understand any effects of the 1970 era auditing standard setting reforms, the sample is split. As posited in Hypothesis 1, ASB issues almost another standard after a recession (1.535, $p = .007$). Consistent with Power's (1997, 31) prediction that deregulation increased the sensitivity of standard setters to political pressure, the ASB is more responsive to economic conditions after the reformation (1.914, $p > .000$). This result also provides supporting evidence of the theoretical prediction of Bertomeu and Magee (2011), who find that standard setters respond to investors' changing demand for quality across the business cycle.

As expected, ASB issues more than twice as many auditing standards after a major accounting scandal (2.035, $p = .003$) (see table 3). Given that most accounting scandals occurred after 1972, the SAS regime, it is not surprising that ASB was more responsive with SASs (1.949, $p = .024$) than SAPs (1.693, $p = .024$). The negative association with $AAERAUD_{t-1}$ (-.278, $p = .001$) provides support for the idea the ASB is a delegated regulator that is a substitute for the SEC.

Although positive and significant (1.117, $p = .002$), ASB's response to the frequency of accounting standards issued was greater (1.524, $p = .002$) when issuing SAPs than when issuing

²⁹ Similar to an odds ratio, the IRR reports the average rate of incidence and is not affected by changes in nonconfounding variables (Cummings 2009).

³⁰ This lag is consistent with Greene (2012, 920) where the lag equals $T^{0.25}$ and T is the number of observations ($63^{0.25} = 2.82$).

SASs (1.078, $p = .006$). Recall when the ASB was issuing SAPs, accounting standard setting was also controlled by a committee of the AICPA. The annual volume of FASB accounting standards nearly doubled under the AICPA (mean 5.3, 2.6, respectively), making accounting standard issuance less salient. In addition, the attenuation of the response to the accounting profession likely reflects the expansion of constituents. $ChgtoDem_{t-1}$ and $ChgtoRep_{t-1}$ reflect the public opinion of regulatory enforcement priorities. A change in the political party of the presidency suggests public dissatisfaction with the economy and signals a change in regulatory priorities. The negative and significant association between $\#AuditStand_t$ and both $ChgtoDem_{t-1}$ and $ChgtoRep_{t-1}$ (-0.615, $p = .007$ and -0.641, $p = .009$, respectively) likely reflects the ASB waiting for governmental regulations to be issued as a substitute for private standard setting.³¹ The positive and significant association between $\#AuditStand_t$ and $ChgtoDem_{t-1}$ prior to 1973 is related to the election of President John F. Kennedy. His economic priorities included deregulation and the reduction of taxes. As predicted by Ye and Simunic (2013), the ASB increased the issuance of auditing standards to signal continued quality to offset the relaxation of governmental regulations. With the revisions of the APA in 1966, administrative rulemaking subsequently accelerated under both Democratic and Republican administrations. Consistent with the substitution role of the ASB, the association with between $\#AuditStand_t$ and a change in the political party of the presidency turned negative after 1972. The negative and significant coefficient on $ChgtoDem_{t-1}$ (-0.452, $p = .000$) indicates almost two fewer auditing standard are issued after a Democrat president is elected. The negative and significant coefficient on $ChgtoRep_{t-1}$ (-0.513, $p = .002$) indicates one and a half fewer auditing standards are issued after a Republican president is elected. The difference in the number of standards issued provides

³¹ Note if the variables $ChgtoDem_{t-1}$ and $ChgtoRep_{t-1}$ were combined into a single variable, the response would be -1, 0 and 1. In untabled correlation tests, $ChgtoDem_{t-1}$ and $ChgtoRep_{t-1}$ are not correlated (-0.0582, $p=.6504$)

evidence in support of each party's historical reliance on regulation.

Although one of the goals of the 1970s reformation of the ASB was to dilute the influence of the big auditing firms, the results indicate a greater influence after 1972, i.e., the SAS era. Along with greater wealth at risk in the event of audit failure, the association between $\#AuditStand_t$ and $BigNChair_{t-1}$ after 1972 is positive and significant (1.768, $p = .001$). As suggested by the ASB reformation as a political response to the accounting scandals of the late 1960s and early 1970s and the creation of FASB, ASB issued more than twice as many auditing standards after 1972 (2.134, $p = .010$) than before. The negative and significant coefficient on *Crisis* (-0.675, $p = .023$) in the latter period suggests that political pressure was not exerted on auditing standard setters during a banking crisis. It is likely that regulatory efforts were directed at the financial sector. *WW2* is positively associated with the $\#AuditStand_t$ (2.182, $p = .003$).

These results provide support for Hypothesis 1 that auditing standard setters respond to political pressures related to recessions by issuing more auditing standards. The results also provide evidence that auditing standard setters are sensitive to public and regulatory concerns, as well as the needs of the profession they represent. In addition, there is evidence that relative to accountants, investors and regulators have become more important constituencies to auditing standard setting since 1972.

4.2. Tests of Hypothesis 2

Table 4 presents the results of the Hypothesis 2 test. IRRs are presented for ease of discussion. Consistent with Hypothesis 2 that auditing standard setters issue more precise standards in response to recession, ASB issues almost 50% more or almost three quarters of a precise standard after a recession ($p = .069$). Consistent with Power's (1997, 31) prediction that

deregulation increased the sensitivity of standard setters to political pressure, the ASB is more responsive to economic conditions after the reformation (1.751, $p > .043$). This result also provides support for the theoretical prediction of Bertomeu and Magee (2011), who find that standard setters respond to business cycle contractions.

As expected, ASB issues more precise auditing standards after a major accounting scandal (1.643, $p = .048$). Although more scandals occurred in the SAS regime (after 1972), the ASB was only responsive in the SAPs (2.262, $p = .024$) regime. The ASB, as the representative of the auditing profession, likely concluded that precise auditing standards generally are unable to provide a “safe harbor.” The preference for flexibility was more valuable than the protection precise auditing standards could afford. The negative association of $AAERAUD_{t-1}$ (-0.106, $p = .000$) with $\#PreciseStandard_t$ provides support for the idea the ASB trades audit precision for regulatory enforcement actions, as predicted by Ye and Simunic (2013).

Although positive and significant (1.056, $p = .055$), ASB’s response to the frequency of accounting standards issuance (1.362, $p = .002$) is similar to the response to scandals, reflecting a change in the constituencies. When the ASB was issuing SAPs, accounting standard setting was also controlled by a committee of the AICPA, reflecting a greater coordination between accountants and auditors. The coefficient (-0.407, $p = .053$) on $ChgtoDem_{t-1}$ is only significant after the reformation of the 1970s. This is consistent with the reliance of the Democratic Party on administrative regulation and thus the expectation by ASB of forthcoming regulatory efforts. Similar to the association of $BigNChair_{t-1}$ and $\#AuditStand_t$, the $\#PreciseStandard_t$ issued in the SAS era (2.097, $p = .000$) is more than twice the SAP era, which provides evidence in support of Ye and Simunic’s (2013) and DeAngelo’s (1981) predictions.

As the ASB reformation was a political response to the creation of FASB, it is not

surprising that more than three times as many precise standards are issued as SASs (3.605, $p = .000$). The lack of significance on the *Crisis* coefficient suggests ASB does not consider that precise standards provide protection against litigation. *WW2* is negatively associated with the $\#PreciseStandard_t$ (-0.516, $p = .071$), likely reflecting the speed with which those standards were adopted.

These results provide limited support for Hypothesis 2 that precise auditing standards are associated with the business cycle. There is evidence that the ASB has modified its view as to the value of precise auditing standards, based on changing constituencies. BigN firms and the expanded constituencies included as a result of the 1970 reformation support the idea that auditing standards are influenced by political considerations. In addition, the idea that standard setters respond to regulation enforcement by issuing less precise standards is supported.

4.3. Tests of Hypothesis 3

Table 5 presents the results of the multivariate analysis of equation (2), testing Hypothesis 3. To test the relationship between precise auditing standards and economic recession, I use OLS regression. Similar to the tests of Hypotheses 1 and 2, I use the Newey-West correction for standard errors with a three-year lag.

Recession_{t-1}, the variable of interest, is negative and not significant at conventional levels (-0.165, $p = .154$). Auditing standard setters are more concerned about preserving auditors' flexibility to decide audit level procedures than minimizing litigation risk in response to economic recessions. Similarly, the precision of an auditing standard is not associated with *Scandal_{t-1}* (-0.007, $p = .477$). As predicted by Ye and Simunic (2013), as regulatory toughness increases (*AAERAUD_{t-1}*), the auditing standards become less precise (-0.493, $p = .006$).

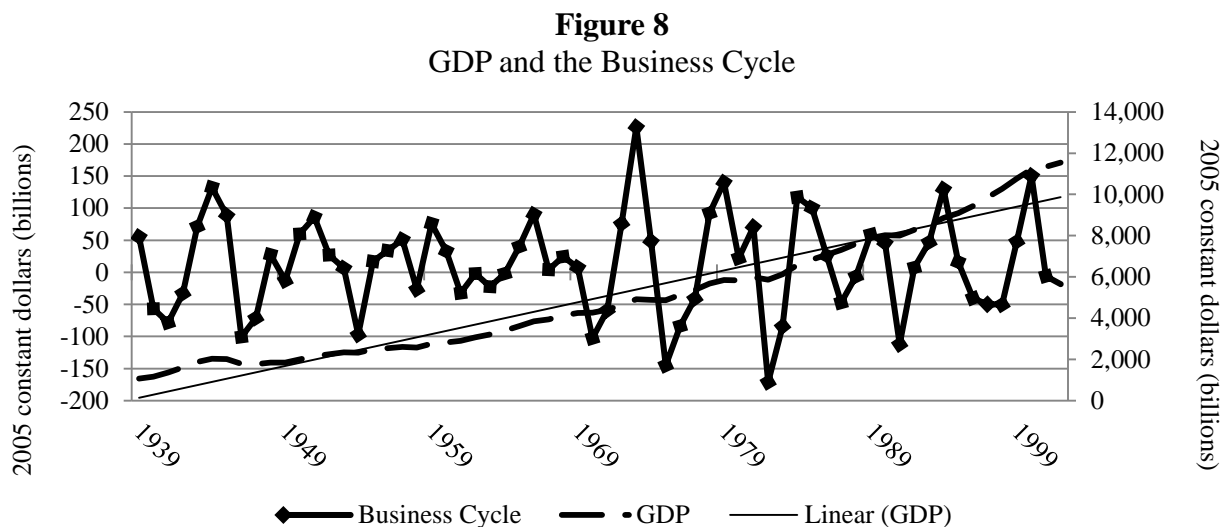
Interestingly, although fewer auditing standards are issued in response to $ChgtoRep_{t-1}$ (Hypothesis 1), $ChgtoRep_{t-1}$ is significant and positive (0.354, $p = .005$). The change to a Republican president results in fewer but more precise auditing standards. Ye and Simunic (2013) predict that when regulatory enforcement is less tough, to signal high audit quality, standard setters may issue more precise standards. As Republicans favor market-based solutions to regulation, it is not surprising the private ASB responds to the change in regulatory priorities by a signal of audit quality, issuing more precise auditing standards. As the ASB was reformed in the 1970s to increase participation in the auditing standard setting, the positive and significant coefficient on SAS (0.317, $p = .002$) is expected. The negative and significant coefficient on $WW2$ (-0.321, $p = .001$) is surprising given the large issuance of government contracts during WWII. However, less precise standards may be related to the need for prompt guidance. Sociological theorists (Brunsson et al. 2012) and Ye and Simunic (2013) predict that it takes longer to adopt precise standards as there are more potential areas of disagreement. Taken together, the results do not provide support for Hypothesis 3, although there is evidence supporting the trade-off of auditing standard precision and regulatory enforcement.

4.4. Robustness and Supplemental Analysis

4.4.1. Hypothesis 1

To test the sensitivity of the Hypothesis 1 results to the measure of recession, in Table 6 I re-estimate the Model (1) and replace $Recession_{t-1}$ with $Recession_t$. $Recession_t$ is significant but negative (-0.580, $p = .003$) and suggests the ASB is not able to respond contemporaneously to recessions. I also re-estimate Model (1) and replace $Recession_{t-1}$ with $Contraction_{t-1}$ and $BizCycle_{t-1}$. Constant dollar GDP in 2005 is the basis used to measure $Contraction_{t-1}$. To control

for general growth in the economy, I extract the business cycle portion of GDP from nominal GDP by applying an ideal band pass filter (Christiano and Fitzgerald 2003), an enhancement on the band pass method of Baxter and King (1999). Band pass filters are designed to separate time series growth from other variations. In calculating the business cycle component, the filter uses a moving average that is similar to NBER researchers' definition of the business cycle, which is 6 to 32 quarters (Baxter and King 1999). Figure 6 shows GDP and the related business cycle component. While there is some variation in the nominal GDP, the overall growth over time makes it difficult to observe. $Contraction_{t-1}$ equals 1 if the business cycle portion of GDP (i.e., the de-trended GDP) declined from the prior year, and is 0 otherwise. $BizCycle_{t-1}$ is a continuous measure of the business cycle component of 2005 constant dollar GDP.



The y-axis is reported in 2005 constant dollars (billions) and reflects the economic cycle component of GDP. The z-axis is reported in 2005 constant dollars (billions) and reflects nominal GDP. The business cycle is calculated using the ideal band pass filter (Christiano and Fitzgerald 2003) STATA command `cfitzrw`. Note the variation in the business cycle appears larger than nominal GDP due to the differing presentation scales.

The significant and positive coefficient on $Contraction_{t-1}$ (1.383, $p = .022$) supports Hypothesis 1. Although economically small, the negative association between the number of audit standards issued and $BizCycle_{t-1}$ (-0.997, $p = .008$) provides support for the sensitivity of

standard setters to the business cycle in general. Hypothesis 1 provides evidence of standard setters responding to political pressure generated from economic variations.

4.4.2. Hypothesis 2

In Table 7 I again re-estimate Model (1) and replace *Recession_{t-1}* with *Recession_t*, *Contraction_{t-1}*, and *BizCycle_{t-1}*, to test the sensitivity of Hypothesis 2 results to the measure of recession. *Recession_t* is insignificant while the other variables are qualitatively similar. The significant and positive coefficient on *Contraction_{t-1}* (1.600, $p = .015$) provides support for Hypothesis 2. Although economically small, the negative association between the number of audit standards issued and *BizCycle_{t-1}* (-0.997, $p = .016$) provides support for the sensitivity of standard setters to the business cycle in general. Hypothesis 2 provides evidence of standard setters responding to political pressure generated from economic variations.

To test the sensitivity of Hypothesis 2 results to the measure of precision, *#PreciseStandard_t*, in Table 8 I require two or more precise features for a standard to be coded as precise. Thus a precise standard will have at least two of the following features: new compliance requirement, responsibility expansion, report specificity, and length and/or appendix/examples. Although *Recession_{t-1}* and *Scandal_{t-1}* are no longer significant ($p=.327$ and $p=.430$, respectively) and *Recession_{t-1}* becomes negative, the IRR for *SAS* (to 6.144, $p=.000$) and *Crisis* (2.253, $p=.063$) nearly double. Interestingly, the *ChgtoDem_{t-1}* (-0.350, $p=.031$) and *ChgtoRep_{t-1}* (2.709, $p=.089$) IRRs become stronger and significant. While *AAERAUD_{t-1}* remains significant and negative, the IRR becomes nearly zero. Taken together, these results support the idea that the ASB is sensitive to the regulatory environment, trading flexibility in auditing standards for protection from litigation.

4.4.3. Hypothesis 3

I re-estimate the model using $Recession_t$, $Contraction_{t-1}$, and $BizCycle_{t-1}$ to test the sensitivity of Hypothesis 3 results to the recession proxy (see Table 9). Supporting my primary results, the coefficients on $Recession_t$ and $Contraction_{t-1}$ are insignificant (-0.014 , $p = .897$ and -0.114 , $p = .123$, respectively). Although economically insignificant, the negative and significant coefficient on $BizCycle_{t-1}$ (-0.001 , $p = .047$) provides support for Hypothesis 3. Thus when controlling for the number of auditing standards issued, standard setters do not issue more precise standards.

4.4. Summary

Taken together, the results of the determinants of auditing standards and standard precision suggest the ASB responds to stakeholder concerns, both those of the public and the profession, especially during economically risky periods. Although more precise standards are issued, after controlling for the number of standards issued, standard setters demonstrate a preference for flexibility in standards, rather than the safe harbor precise standards may afford. In addition, in response to regulatory changes, less precise standards are also consistent with the preference for flexibility. The evidence supports the idea that auditing standard setters respond to regulatory enforcement actions by issuing fewer precise standards the year after the enforcement action.

CHAPTER 5: CONCLUSION

This study is one of the first archival studies to examine of the determinants of private auditing standard setting, the period from 1939 - 2002. The results provide evidence that private auditing standard setters are responsive to political pressures exerted when investors are most at risk of loss (i.e., during economic contractions). The evidence also supports the Bertomeu and Magee (2011) model of a (delegated) regulatory response to changing economic conditions. After controlling for the number of auditing standards issued, ASB prefers standard setting flexibility to safe harbor precision to match investors' preferences. In addition, I find limited evidence to support the work of Ye and Simunic (2013), who suggest that auditing standard setters trade precision with regulatory enforcement toughness in the creation of auditing standards.

This study provides early descriptive evidence of economic cycles and enforcement activities to explain auditing standard adoption. Enforcement activities are another way in which auditing standards are created and are a limitation of this study. However, the results may not be predictive of future determinants or properties as public company auditing standard setting is no longer determined by the self-regulated ASB. Researchers may wish to consider the implications of auditing standard precision and enforcement activities on auditing quality in future research.

APPENDICES

Appendix 1: List of Acronyms

Acronym	Definition
AIA	American Institute of Accountants
AICPA	American Institute of Certified Public Accountants
AAER	Accounting and Auditing Enforcement Releases
APA	Administrative Procedures Act
APB	Accounting Principles Board
ASB	Auditing Standards Board
AudSEC	Auditing Standards Executive Committee
CAP	Committee on Auditing Procedures
CPA	Certified Public Accountant
FASB	Financial Accounting Standards Board
GAAS	Generally Accepted Auditing Standards
NBER	National Bureau of Economic Research
PCAOB	Public Company Oversight Board
SAP	Statement of Auditing Procedure
SAS	Statement of Auditing Standards
SEC	Securities and Exchange Commission

Appendix 2: Variable Definitions

Variable	Definition
<i>#AuditStandard</i>	The number of auditing standards issued in year t .
<i>#PreciseStandard</i>	The number of precise auditing standards issued in year t .
<i>PreciseStd</i>	The number of precise auditing standards scaled by total auditing standards, $\frac{\#PreciseStandard_t}{\#AuditStandard_t}$.
<i>Recession</i>	An indicator variable that equals 1 if six months or more of the year was in recession, 0 otherwise.
<i>Contraction</i>	An indicator variable that equals 1 if the business cycle component of 2005 constant dollar GDP declined from the prior year, and is 0 otherwise.
<i>BizCycle</i>	The business cycle component of 2005 constant dollar GDP.
<i>Scandal</i>	An indicator variable that equals 1 if a major accounting scandal as identified in Table 2, and is 0 otherwise.
<i>AAERAUD</i>	The number of annual auditor AAERs scaled by the annual total AAERs issued in year t .
<i>#AveAccStandards</i>	The average number of accounting standards issued in the current and prior year $((t + t + 1)/2)$.
<i>ChgtoDem</i>	An indicator variable that equals 1 if the party of the president changed to the Democratic Party in year $t - 1$, and is 0 otherwise.
<i>ChgtoRep</i>	An indicator variable that equals 1 if the party of the president changed to the Republican Party in year $t - 1$, and is 0 otherwise.
<i>SAS</i>	An indicator variable that equals 1 for the years 1973 and after, and is 0 otherwise.
<i>Crisis</i>	An indicator variable that equals 1 for 1984 – 1991, and is 0 otherwise.
<i>WW2</i>	An indicator variable that equals 1 for 1942 – 1945, and is 0 otherwise.
<i>BigNchair</i>	An indicator variable that equals 1 if the ASB chair was from a BigN firm, and is 0 otherwise.

Appendix 3: Precise Features and Example Auditing Standards

New Compliance Requirement: Auditing procedures are frequently in use prior to being included in an auditing standard. Often these procedures are best practices that are not yet codified. To be coded as a new compliance requirement, the auditing standard identifies the procedure as a new requirement. For example, in SAS No. 85, Management Representations:

Introduction

1. This section establishes a requirement that the independent auditor obtain written representations from management as a part of an audit of financial statements performed in accordance with generally accepted auditing standards and provides guidance concerning the representations to be obtained.

Responsibility Expansion: “Pronouncements based on obligation of the independent auditor rather than on what might be necessary to form an opinion on the financial statements.”

(Carmichael 1982). For example, SAS No. 20, Required Communication of Material Weaknesses in Internal Accounting Control.

Report Specificity: Standards that specifically modify or supersede the auditor’s report. For example, in SAS No. 72, Letters for Underwriters and Certain Other Requesting Parties:

Introductory Paragraph

25. It is desirable to include an introductory paragraph similar to the following:

We have audited the [*identify the financial statements and financial statement schedules*] included (incorporated by reference) in the registration statement (no. 33-00000) on Form _____ filed by the company under the Securities Act of 1933 (the Act); our reports with respect thereto are also included (incorporated by reference) in that registration statement. The registration statement, as amended as of _____, is herein referred to as the registration statement.

Length and/or Appendix/Examples: The standards are sorted according by page length, longest to shortest. Those standards in the top decile of pages are coded as precise. In addition, any standard that has an appendix or examples are also coded as precise.

Appendix 4: Tables

Table 1					
Descriptive Statistics					
	Mean	25%	Median	75%	Range
ASB					
Membership	19		18		11-25
Term (years)	2.8		3		1-9
Standards per member	7.5		6		1-29
<i>BigNchair</i>	81.8%				
Term as chair (years)	2.1	1	2.0	3	1-5
Standards per year	3.3	1.5	3.3	4.7	1-7
Standards per chair	7.1	3	5.5	12	1-20
Precise Standards per chair	3.9	1	2	7	1-10
<i>Non-BigNchair</i>	18.2%				
Term as chair (years)	2.25	1	2.5	3	1-3
Standards per year	3.8	1.5	4.1	4.7	1-7
Standards per chair	10	7	10.5	14	1-18
Precise Standards per chair	3.9	2	5	8	1-12
<i>#AuditStandard_t</i> per year					
Total	2.5	1	2	3.5	0-10
SAP	1.7	1	1	2	0-8
SAS	3.3	2	3	5	0-10
<i>#pages</i> per standard					
Total	16.6	6	10	16	2-220
SAP	11.3	4	7	11	2-83
SAS	18.4	7	11	20	2-220
<i>#AccStandards_t</i> per year					
Total	3.7	2	3	4	0-18
APB	2.6	1	2	4	0-7
FASB	5.3	3	4	6	2-18
<i>#PreciseStandard_t</i> per year					
Total	1.5	0	1	2	0-8
SAP	.76	0	1	1	0-4
SAS	2.3	1	2	3	0-8
<i>BigNchair</i>	1.92	1	2.5	7	1-10
<i>Non-BigNchair</i>	2.55	2	5	10	1-12

Table 1 (cont'd)

	Mean	25%	Median	75%	Range
<i>PreciseStd</i> per year					
Total	50.1%	0	50	100	0-100%
CAP	37.6	0	18.8	57.1	0-100
SAS	64.4	42.9	72.5	100	0-100
AAERs per year					
Total	79.4	36	76	120	2-213
Auditor	15.3	11	15	20	2-30
Auditor/Total	29.7%	15	22.2	30	9-100%

Table 2
Accounting Scandals

Year	Scandal
1938	McKesson & Robbins
1964	Allied Crude Vegetable Oil Refining Corporation
1966	Yale Express
1969	Continental Vending
1970	National Student Marketing
1973	Equity Funding
1985	ESM Government Securities
1987	<i>ZZZZ</i> Best
1989	Lincoln Savings & Loan
1998	Waste Management
2001	Enron
2002	WorldCom

Although other major scandals may have occurred in a given year, I am interested in the existence or absence of major accounting scandals in year t of which this listing is representative. (AICPA 1978; Zeff 2003a; 2003b; Clikeman 2009).

Table 3
Poisson Regression of Frequency of Auditing Standards

	# of Total Auditing Standards			# of SAP Auditing Standards (1939 – 1972)			# of SAS Auditing Standards (1973 – 2002)		
		z-value			z-value			z-value	
<i>Recession</i> _{<i>t</i>-1}	1.535	2.45	***	1.645	1.60	*	1.914	5.48	***
<i>Scandal</i> _{<i>t</i>-1}	2.035	2.81	***	1.693	1.98	**	1.949	2.20	**
<i>AAERAUD</i> _{<i>t</i>-1}	-0.282	-3.05	***				-0.294	-2.71	***
<i>#AveAccStandards</i> _{<i>t</i>}	1.117	2.91	***	1.524	2.93	***	1.078	2.50	*
<i>ChgtoDem</i> _{<i>t</i>-1}	-0.586	-2.44	***	1.832	2.46	***	-0.452	-6.20	***
<i>ChgtoRep</i> _{<i>t</i>-1}	-0.597	-2.37	***	1.404	1.01		-0.513	-2.93	***
<i>BigNChair</i> _{<i>t</i>-1}	1.285	1.26		-0.670	-0.76		1.768	3.45	***
<i>SAS</i>	2.183	2.34	**						
<i>Crisis</i>	-0.792	-0.91					-0.675	-2.01	**
<i>WW2</i>	2.182	2.78	***	1.487	0.86				
Number of Observations	63			33			30		
Model χ^2	51.28			31.10			22.15		
Prob > χ^2	0.000			0.000			0.005		
Pseudo R ²	0.188			0.252			0.169		
Goodness of fit χ^2	74.18			29.05			25.27		
Prob > χ^2	(52)			(25)			(21)		
	0.023			0.262			0.234		

See Appendix 1 for variable definitions. *, **, *** indicates statistical significance for a one-tail test at the 0.10, 0.05, or 0.01 level, respectively. The results are the incident rate ratios. I use the Newey-West adjustment to account for heteroscedasticity and serial correlation. As the mean length of ASB membership is 2.8 years, which rounds to a lag of three years. This lag is consistent with Greene (2012, 920) where the lag equals $T^{0.25}$ and T is the number of observations ($63^{0.25} = 2.82$). The Pearson goodness-of-fit test indicates that p -values greater than .1000 are a better fit.

Table 4
Poisson Regression of Frequency of Precise Auditing Standards

	# of Precise Auditing Standards			# of SAP Auditing Standards (1939 – 1972)			# of SAS Auditing Standards (1973 – 2002)		
		z-value			z-value			z-value	
<i>Recession</i> _{<i>t</i>-1}	1.491	1.49	*	1.153	0.28		1.751	1.72	**
<i>Scandal</i> _{<i>t</i>-1}	1.643	1.67	**	2.262	1.75	**	1.307	0.98	
<i>AAERAUD</i> _{<i>t</i>-1}	-0.106	-3.27	***				-0.094	-3.31	***
<i>#AveAccStandards</i> _{<i>t</i>}	1.056	1.60	*	1.362	1.55	*	1.025	0.94	
<i>ChgtoDem</i> _{<i>t</i>-1}	-0.595	-1.13		2.733	2.45	***	-0.407	-1.62	*
<i>ChgtoRep</i> _{<i>t</i>-1}	1.026	0.07		1.659	1.39	*	1.015	0.03	
<i>BigNChair</i> _{<i>t</i>-1}	1.661	2.06	**	-0.765	-0.38		2.097	2.96	***
<i>SAS</i>	3.605	3.61	***						
<i>Crisis</i>	1.203	0.82					1.178	0.77	
<i>WW2</i>	-0.649	-1.20		-0.516	-1.47	*			
Number of Observations	63			33			30		
Model χ^2	45.89			9.37			19.89		
Prob > χ^2	.000			.227			.011		
Pseudo R ²	.206			.120			.168		
Goodness of fit χ^2	69.68			30.51			29.10		
Prob > χ^2	(52)			(25)			(21)		
	.051			.206			.112		

See Appendix 1 for variable definitions. *, **, *** indicates statistical significance for a one-tail test at the 0.10, 0.05, or 0.01 level, respectively. The results are the incident rate ratios. I use the Newey-West adjustment to account for heteroscedasticity and serial correlation. As the mean length of ASB membership is 2.8 years, which rounds to a lag of three years. This lag is consistent with Greene (2012, 920) where the lag equals $T^{0.25}$ and T is the number of observations ($63^{0.25} = 2.82$). The Pearson goodness-of-fit test indicates that p -values greater than .1000 are a better fit.

Table 5
OLS Regression of Proportion of Precise Auditing Standards

	Predicted Sign	Coefficient	<i>t</i> -stat.	
<i>Recession</i> _{<i>t</i>-1}	?	-.165	-1.45	
<i>Scandal</i> _{<i>t</i>-1}	+	-.007	-0.06	
<i>AAERAUD</i> _{<i>t</i>-1}	-	-.493	-2.61	***
<i>ChgtoDem</i> _{<i>t</i>-1}	?	.069	0.20	
<i>ChgtoRep</i> _{<i>t</i>-1}	?	.354	2.70	***
<i>BigNchair</i> _{<i>t</i>-1}	-	.140	0.98	
<i>#AveAccStandards</i> _{<i>t</i>}	+	.005	0.24	
<i>SAS</i>	+	.317	3.02	***
<i>Crisis</i>	-	.084	0.42	
<i>WW2</i>	+	-.321	-3.57	**
<i>Constant</i>		.278	1.57	
Number of observations		63		
<i>F</i> _(10, 53)		9.94		
Prob > <i>F</i>		.0000		
Adjusted <i>R</i> ²		.0762		

The dependent variable, *PreciseStd_t*, is the ratio of the number of precise auditing standards issued in year *t* scaled by the total number of standards issued in year *t*, $\frac{\#PreciseStandard_t}{\#AuditStandard_t}$. See Appendix 1 for variable definitions. *, **, *** indicates statistical significance for a one-tail test at the 0.10, 0.05, or 0.01 level, respectively, where a prediction is presented, otherwise reflects a two-tailed test. Tests are two-tailed unless a predicted sign. The Newey-West adjustment accounts for heteroscedasticity and serial correlation. As the mean length of ASB membership is 2.8 years, I round to a lag of three years and is consistent with Greene (2012, 920) where the lag equals $T^{0.25}$ and *T* is the number of observations.

Table 6
Poisson Regression of Frequency of Auditing Standards
Supplementary Analysis – Business Cycle Proxies

	# of Total Auditing Standards	z-value		# of Total Auditing Standards	z-value		# of Total Auditing Standards	z-value	
<i>Recession_t</i>	-.580	-2.83	***						
<i>Contraction_{t-1}</i>				1.383	2.02	**			
<i>BizCycle_{t-1}</i>							-.997	-2.42	***
<i>Scandal_{t-1}</i>	1.980	2.52	***	1.878	2.47	***	1.887	2.55	***
<i>AAERAUD_{t-1}</i>	-.207	-3.39	***	-.278	-3.39	***	-.186	-3.84	***
<i>#AveAccStandards_t</i>	1.154	3.73	***	1.124	3.34	***	1.117	3.45	***
<i>ChgtoDem_{t-1}</i>	-.523	-3.32	***	-.613	-2.61	***	-.513	-3.73	***
<i>ChgtoRep_{t-1}</i>	-.845	-0.67		-.767	-1.09		-.833	-0.75	
<i>BigNChair_{t-1}</i>	1.039	0.19		1.084	0.35		1.054	0.25	
<i>SAS</i>	2.039	2.41	***	2.204	2.52	***	2.331	3.29	***
<i>Crisis</i>	-.840	-0.57		-.821	-0.74		-.913	-0.33	
<i>WW2</i>	1.971	2.74	***	2.428	3.10	***	2.051	3.22	***
Number of Observations	63			63			63		
Model χ^2	53.05			51.21			57.04		
Prob > χ^2	.000			.000			.000		
Pseudo R ²	.195			.188			.209		
Goodness of fit χ^2	72.41			74.25			68.42		
Prob > χ^2 (52)	.032			0.023			.063		

See Appendix 1 for variable definitions. *, **, *** indicates statistical significance for a one-tail test at the 0.10, 0.05, or 0.01 level, respectively. The reported results are the incident rate ratios. I use the Newey-West adjustment to account for heteroscedasticity and serial correlation. As the mean length of ASB membership is 2.8 years, which rounds to a lag of three years. This lag is consistent with Greene (2012, 920) where the lag equals $T^{0.25}$ and T is the number of observations ($63^{0.25} = 2.82$). The Pearson goodness-of-fit test indicates that p -values greater than .1000 are a better fit.

Table 7
Poisson Regression of Frequency of Precise Auditing Standards
Supplementary Analysis – Business Cycle Proxies

	# of Total Precise Auditing Standards	z-value		# of Total Precise Auditing Standards	z-value		# of Total Precise Auditing Standards	z-value
<i>Recession_t</i>	-.743	-1.15						
<i>Contraction_{t-1}</i>				1.600	2.18 **			
<i>BizCycle_{t-1}</i>							-.997	-2.16 **
<i>Scandal_{t-1}</i>	1.569	1.45 *		1.453	1.37 *		1.515	1.42 *
<i>AAERAUD_{t-1}</i>	-.084	-3.55 ***		-.107	-3.97 ***		-.082	-4.36 ***
<i>#AveAccStandards_t</i>	1.073	1.75 **		1.061	1.79 **		1.058	1.47 *
<i>ChgtoDem_{t-1}</i>	-.543	-1.43 *		-.664	-.096		-.528	-1.68 **
<i>ChgtoRep_{t-1}</i>	1.419	1.23		1.313	1.16		1.414	1.21
<i>BigNChair_{t-1}</i>	1.429	1.12		1.337	1.05		1.340	0.94
<i>SAS</i>	3.498	3.56 ***		3.729	3.99 ***		3.690	4.21 ***
<i>Crisis</i>	1.291	1.04		1.257	1.06		1.369	1.20
<i>WW2</i>	-.601	-1.51 *		-.802	-0.56		-.620	-1.68 **
Number of Observations	63			63			63	
Model χ^2	44.93			48.51			49.05	
Prob > χ^2	.000			.000			.000	
Pseudo R ²	.202			.218			.220	
Goodness of fit χ^2	70.65			67.07			66.53	
Prob > χ^2 (52)	.044			0.078			.085	

See Appendix 1 for variable definitions. *, **, *** indicates statistical significance for a one-tail test at the 0.10, 0.05, or 0.01 level, respectively. The results are the incident rate ratios. I use the Newey-West adjustment to account for heteroscedasticity and serial correlation. As the mean length of ASB membership is 2.8 years, I round to a lag of three years. This lag is consistent with Greene (2012, 920) where the lag equals $T^{0.25}$ and T is the number of observations ($63^{0.25} = 2.82$). The Pearson goodness-of-fit test indicates that p -values greater than .1000 are a better fit.

Table 8
Poisson Regression of Frequency of Precise Auditing Standards
Supplementary Analysis – Precise Features

	# of Precise Auditing Standards		# of SAP Auditing Standards (1939 – 1972)		# of SAS Auditing Standards (1973 – 2002)		
		z-value		z-value		z-value	
<i>Recession_{t-1}</i>	-0.775	-0.45	-0.614	-0.67	1.137	0.15	
<i>Scandal_{t-1}</i>	1.067	0.18	1.041	0.06	1.123	0.28	
<i>AAERAUD_{t-1}</i>	-0.013	-2.02 **			-0.016	-1.71 **	
<i>#AveAccStandards_t</i>	-0.924	-1.33 *	1.180	0.67	-0.918	-1.20	
<i>ChgtoDem_{t-1}</i>	-0.350	-1.88 **	-0.000	-11.10 ***	-0.377	-1.81 **	
<i>ChgtoRep_{t-1}</i>	2.709	1.35 *	6.554	4.71 ***	1.183	0.12	
<i>BigNChair_{t-1}</i>	1.436	0.82	-0.497	-1.37 *	1.869	1.28	
<i>SAS</i>	6.144	3.34 ***					
<i>Crisis</i>	2.253	1.95 **			1.830	1.21	
<i>WW2</i>	-0.000	-16.45 ***	-0.000	-20.88 ***			
Number of Observations	63		33		30		
Model χ^2	29.53		9.88		10.87		
Prob > χ^2	.001		.196		.209		
Pseudo R ²	.186		.202		.118		
Goodness of fit χ^2	66.45		19.84		40.89		
Prob > χ^2	(52)		(25)		(21)		
	.086		.755		.006		

See Appendix 1 for variable definitions. *, **, *** indicates statistical significance for a one-tail test at the 0.10, 0.05, or 0.01 level, respectively. The results are the incident rate ratios. I use the Newey-West adjustment to account for heteroscedasticity and serial correlation. As the mean length of ASB membership is 2.8 years, I round to a lag of three years. This lag is consistent with Greene (2012, 920) where the lag equals $T^{0.25}$ and T is the number of observations ($63^{0.25} = 2.82$). The Pearson goodness-of-fit test indicates that p -values greater than .1000 are a better fit.

Table 9
OLS Regression of Proportion of Precise Auditing Standards
Supplementary Analysis

	Predicted Sign	Coefficient (<i>t</i> -stat.)	Coefficient (<i>t</i> -stat.)	Coefficient (<i>t</i> -stat.)
<i>Recession_t</i>	?	-.014 (-0.13)		
<i>Contraction_{t-1}</i>	?		-.114 (-1.18)	
<i>BizCycle_{t-1}</i>	?			-.001 ** (-2.01)
<i>Scandal_{t-1}</i>	+	.028 (0.23)	.044 (0.36)	.019 (0.15)
<i>AAERAUD_{t-1}</i>	-	-.537 *** (-2.65)	-.496 (-2.67)	-.683 *** (-434)
<i>ChgtoDem_{t-1}</i>	?	.089 (0.26)	.074 (0.20)	.067 (0.20)
<i>ChgtoRep_{t-1}</i>	?	.259 ** (2.24)	.250 * (1.85)	.276 ** (2.39)
<i>BigNchair_{t-1}</i>	-	.166 (1.21)	.202 * (1.47)	.135 (1.04)
<i>#AveAccStandards_t</i>	+	.003 (0.14)	.005 (0.24)	-.005 (-0.26)
<i>SAS</i>	+	.335 *** (3.39)	.311 *** (2.87)	.385 *** (3.48)
<i>Crisis</i>	-	.085 (0.47)	.063 (0.34)	.131 (0.77)
<i>WW2</i>	+	-.289 *** (-3.35)	-.358 *** (-3.20)	-.257 *** (-3.01)
<i>Constant</i>		.231 (1.38)	.253 (1.43)	.278 * (1.75)
<i>Number of observations</i>		63	63	63
<i>F_(10, 52)</i>		9.11	9.11	16.68
<i>Prob > F</i>		.000	.000	.000
<i>Adjusted R²</i>		.0547	.073	.0865

The dependent variable, *PreciseStd_t*, is the ratio of the number of precise auditing standards issued in year *t* scaled by the total number of standards issued in year *t*, $\frac{\#PreciseStandard_t}{\#AuditStandard_t}$. See Appendix 1 for variable definitions. *, **, *** indicates statistical significance for a one-tail test at the 0.10, 0.05, or 0.01 level, respectively where a prediction is presented, otherwise reflects a two-tailed test. Tests are two-tailed unless a predicted sign. The Newey-West adjustment accounts for heteroscedasticity and serial correlation. As the mean length of ASB membership is 2.8 years, I round to a lag of three years and is consistent with Greene (2012, 920) where the lag equals $T^{0.25}$ and *T* is the number of observations.

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