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The Differential Effects of Mandatory and Voluntary Auditor Rotation on Investors' Expectations of Financial Reporting Aggressiveness and Willingness to Invest

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The Differential Effects of Mandatory and Voluntary Auditor Rotation on Investors'
Expectations of Financial Reporting Aggressiveness and Willingness to Invest

By
Kelsey Maynard

A thesis submitted to the Faculty of The University of Mississippi in partial fulfillment of
the requirements of the Sally McDonnell Barksdale Honors College.

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ABSTRACT

KELSEY BRIANNE MAYNORD: Auditor Rotation
(Under the direction of Dr. Bowlin)

Using an experiment, this study investigates whether auditor rotation influences the non-professional investors' expectations regarding a company's financial reporting aggressiveness and their willingness to invest in the company. Specifically, I explore whether the effects of auditor rotation differ depending on whether the entire audit firm is rotated or only the engagement partner. Further, I explore whether that effect is moderated by whether the auditor's rotation is mandated by law or the company chooses to rotate its auditor. In an experiment using MBA students, I find little overall effect of the various rotation regimes. However, I do find that under audit partner rotation the investors' expect reported earnings per share to be a more conservative amount when that rotation is mandatory compared to when it is voluntary.

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I. INTRODUCTION

One of the primary purposes of the Sarbanes-Oxley Act (the “Act”) is enhancing investor confidence. In accordance with this purpose, the Act requires that audit engagement partners be associated with the same client for no more than five years (Sarbanes-Oxley Act, 2002). In addition, the Act also required the U.S. General Accounting Office (the “GAO”) to conduct a study regarding the potential effects on auditor independence and audit quality of extending this requirement beyond partner rotation to mandatory firm rotation. After completing this study, the GAO was unable to conclude whether mandatory firm rotation would be beneficial (GAO, 2003). Despite this outcome, the Public Company Accounting Oversight Board (the “PCAOB”) is currently considering mandating the rotation of audit firms (PCAOB, 2011).

A substantial amount of prior research has explored the effects of firm tenure and auditor rotation. However, that research has generally focused on whether audit quality increases or decreases with longer auditor tenure or with auditor rotation. The results of those studies have been conflicting. Some studies indicate that rotation enhances audit quality (e.g., Dopuch et al. 2001, Carey and Simnett 2006,) and while others indicate that rotation decreases audit quality (e.g., Myers et al. 2003). My study differs from prior research in that I explore the effects of auditor rotation on investors’ expectations of a

company's financial reporting aggressiveness and investors' willingness to invest in the company. In addition, I explore the differential effects of currently required engagement partner rotation and the proposed rotation of entire firms.

I further examine whether the effects of auditor rotation are moderated by its intentionality; that is, I explore whether relative effects of partner and firm rotation depends on whether the rotation is mandated by law or the client's voluntary choice. Prior research suggests that people make choices based on how they infer the intentions underlying the choices of others (McCabe, Rigdon and Smith, 2003). Those findings have implications for my setting because companies are currently able to voluntarily choose to rotate its audit firm. The investors' responses to that choice would likely depend on the investors' inferences regarding management's intentions underlying that choice. For example, investors could infer that a company that voluntarily chooses to rotate its auditors is more committed to high quality financial reporting.

I address my research questions by conducting an experiment in which MBA students at the University of Mississippi take on the role of the investor. The participants review materials related to a fictitious company and respond to questions that elicit their expectations regarding the aggressiveness of the company's earnings reports and the likelihood with which they would invest in the company. The results of the study suggest that when there is mandatory partner rotation, non-professional investors will expect more conservative financial reporting (i.e., lower reported earnings per share) than the other scenarios. This indicates that an investor would be more willing to invest in a company when the audit partner is required to rotate after a set number of years.

II. BACKGROUND

U.S. Audit Requirements

Auditor rotation is not a new idea to the accounting industry. Mandatory audit partner rotation was implemented by the SEC Practice Section of the American Institute of Certified Public Accountants (the AICPA) in 1970 (Chi et al. 2009). This mandate specified that audit partners could only be associated with the same audit engagement for a maximum of seven years. The Sarbanes-Oxley Act of 2002 strengthened the requirement and made it federal law. Specifically the Act required that the lead audit partner, who has primary responsibility for the audit or who is responsible for reviewing the audit, rotate off of the engagement after five fiscal years (Sarbanes-Oxley Act, 2002).

While partner rotation has been mandatory for some time, the concept of firm rotation has been an unresolved object of debate for at least 35 years. For example in 1977, after various financial scandals, Senator Lee Metcalf, chairman of the Subcommittee on Reports, Accounting, and Management, issued a report (the “Metcalf Report”) that discussed the role of the Big Eight accounting firms and their independence. This report noted that a potential solution is audit firm rotation (PCAOB, 2011). However, to this point, others have largely concluded that mandatory audit firm rotation was not justified in light of its potential costs. Specifically, the Cohen

Commission, a group established by the American Institute of Certified Public Accountants (“AICPA”), discussed the advantages and disadvantages of mandatory audit firm rotation. However, according to this commission, the potential benefits did not outweigh the high costs of mandatory firm rotation, so firm rotation was not mandated (PCAOB, 2011). In addition, the Securities and Exchange Commission (“SEC”) has also considered the issue of mandatory audit firm rotation, but in 1994 the SEC staff concluded that new rotation requirements were not needed (PCAOB, 2011).

The Sarbanes-Oxley Act of 2002 (SOX) required that the United States General Accounting Office, (the “GAO”) conduct a study investigating the potential effects of required firm rotation on public accounting firms that audit public companies. The GAO surveyed these companies to gather their opinions about mandatory firm rotation. Almost all of the responses from the firms indicated the same belief, that the costs of mandatory firm rotation would be more likely to exceed any benefits. Additionally, the GAO interviewed other stakeholders, including institutional investors, bankers, and consumer advocacy groups, and their responses aligned with the firms who responded to the survey. The GAO concluded that mandatory audit firm rotation might not be the answer for audit independence and increased audit quality (GAO, 2003). The report suggested that costs could be much higher than predicted and the benefits of audit firm rotation are unknown. Instead, the GAO recommended that the SEC and PCAOB continue to monitor audit independence and that the best course of action was to wait and observe the effects of the SOX reforms on audit quality and increased independence (GAO, 2003).

In August 2011, the PCAOB issued a concept release, Release No. 2011-006, that explained that the PCAOB would consider requiring periodic firm rotation. The release further explained that it would begin to gather public opinion on ways to enhance auditor independence and audit quality (PCAOB, 2011). In particular, the PCAOB wanted the opinions of the public on mandatory audit firm rotation. The PCAOB wanted the opinion of those who would have to implement the firm rotation as well as the investors who would be investing in these companies. It was important to gather their opinions because a major difference of opinion could cause the PCAOB to look into alternate ways of increasing independence. Currently, the PCAOB has heard various arguments on the advantages of mandatory firm rotation and the disadvantages of mandatory firm rotation. The board is in the process of determining the opinions of the public and professionals in accounting before moving forward with the proposal. If mandatory firm rotation is implemented, the board has discussed possible term lengths of ten years or greater (PCAOB, 2011).

Audit Rotation Requirements Abroad

Other countries have similarly wrestled with the issue of mandating audit partner and audit firm rotation. The European Parliament and Council of the European Union responded to the financial scandals in the US by issuing Directive 2006/43/EC (the “8th Directive”) in 2006 (EU, 2006). The directive laid out similar objectives to financial reporting, as well as establishing similar audit rotation mandates. The 8th Directive requires mandatory audit partner rotation, which requires the lead partner to rotate from an audit engagement after seven years (EU, 2006). However, the European Union (the

“EU”) does not hold the same standard setting power as the PCAOB in the US and many of the members of the EU have not implemented partner rotation. Some of Europe is not even a member of the EU and does not have to follow the directive.

Some countries have implemented mandatory firm rotation, but many of these countries have since revoked the rotation requirements. Currently, Italy and Brazil are the only two countries to require mandatory firm rotation, implemented in 1975 in Italy and 1999 in Brazil (Raiborn, et al, 2006). Italy’s firm rotation requirements allow a firm to audit a client up to nine years before the audit firm is required to rotate off of the engagement (GAO, 2003). However, these rotation requirements were not enough to stop one of the worst financial scams on the European continent to date (Raiborn, et al, 2006). Parmalat SpA was a multinational dairy food company headquartered in Italy. Grant Thornton audited the company from 1990-1999 and in 1999 Deloitte & Touche of Italy became the primary auditor, (Raiborn, et al, 2006). The fraud occurred in the year of the rotation requirement, mainly because Grant Thornton was allowed to be the secondary auditor, which is allowed under Italian rotation rule. The mandatory rotation requirement did not increase audit quality and was not effective in preventing another case of “financial misconduct by an accounting firm” (Raiborn et al, 2006, 38).

Spain adopted mandatory audit firm rotation in 1988 and enforced the rule until it was revoked in 1995. In Spain, an auditor could audit a company between three to nine years. After nine years, the audit firm was rotated off of the client and could not audit the same client again for another three years (Ruiz-Barbadillo et al., 2009). In their paper, Ruiz-Barbadillo et al. study the effect of mandatory audit firm rotation in Spain. They chose to analyze Spain because Spain implemented mandatory firm rotation for six

years before revoking it. So, they were able to study the before and after affects of rotation on the business environment in Spain, which is one of the few countries to require firm rotation. They found that mandatory firm rotation did not enhance auditor independence, but instead found that the reputation of the audit firm had a greater impact on audit independence (Ruiz-Barbadillo et al, 2009). Audit firms were influenced more by how they were perceived in the business world and were more likely to change their behavior based on these perceptions than on mandated rotation requirements.

Two other countries implemented mandatory audit firm rotation, but subsequently dropped the rule after a short period of time. Austria implemented mandatory firm rotation in 2004, which required the audit firm to rotate every six years (Cameron et al, 2005). It is not possible to see the affects of audit firm rotation in Austria because Austria dropped the mandate in 2005. Canada implemented mandatory audit firm rotation involving banks, but the banking legislation was revised in 1991 and the mandatory firm rotation was not included in the new legislation (Cameron et al, 2005).

Prior Academic Research

The debate regarding auditor rotation has not been limited to the standard-setting boards and legislators, but has also involved various researchers and scholars in academia. Many individuals who support mandatory audit firm rotation believe that there will be less pressure on the audit firm to retain a client company, which would result in less inappropriate financial reporting and would increase the public's perceptions regarding auditor independence (Raiborn et al, 2006). The arguments against mandatory audit firm rotation state that a new auditor will require a certain number of years before

they are able to fully understand the company's operations that lack of knowledge will reduce audit quality (Raiborn et al, 2006). The lack of knowledge will require the auditors to spend more time understanding the company and the business issues, which will increase costs of the audit.

Substantial prior research has explored the effects of audit firm rotation or audit partner rotation on overall audit quality. These research papers include archival studies and experimental studies attempting to reach conclusions regarding the effects of audit firm rotation on actual auditor independence and audit quality.

The majority of prior research regarding auditor rotation has been archival in nature and has yielded conflicting results. For example, several previous studies find that auditor rotation improves measures of audit quality (e.g., Dopuch et al 2001, Davis et al. 2002), others suggest that longer auditor tenure improves audit quality (e.g., Myers et al 2003 and Mansi et al. 2004), while yet others indicate no effect of auditor rotation and tenure (e.g., Ruiz-Barbadillo et al. 2009, Kaplan and Mauldin 2008, Chi et al. 2009).

Among a small number of prior experimental studies, the Dopuch, King, & Schwartz (2001) paper investigates the relationship between mandatory rotation of audit partners and auditor independence. They designed an experiment to measure auditor's independence, which they proxy by the willingness of the auditor to issue reports biased in favor of management (Dopuch, King, & Swartz, 2001). The paper investigates auditor independence under required audit partner rotation, required auditor retention, a scenario that does not require either and a scenario that requires both. The experimental design included six "managers" and six "auditors" for each of the four conditions, where each manager would interact with one auditor.

The results of their experiment favor mandatory rotation because mandated audit partner rotation resulted in the lowest frequency of reports favoring management. The highest frequency of favored reports occurred in the regimes without mandatory rotation or retention (Dopuch, King, & Swartz, 2001). The researchers attribute this to the economic incentives available to auditors in the long-term relationship with management.

In another experimental study, researchers explored the relationship between mandatory auditor rotation and professional skepticism on overall audit quality. They designed an experiment that explored the effect of skepticism in the relationship between auditor and client (Bowlin, Hobson, & Piercy, 2011). Their results suggest that the effect of mandatory audit partner rotation on audit quality depended on whether the auditor evaluated the client's integrity or dishonesty, which differs depending on the specific audit task (Bowlin, Hobson, & Piercy, 2011). Specifically they find that audit rotation commonly increased audit quality when focused on manager's honesty and decreased audit quality when focused on the manager's dishonesty, when the auditors used professional skepticism. Also, the ability to talk to the clients increased the level of trust the auditor placed in clients, which sometimes caused the auditor to decrease the effort on the audit quality. This would be in favor of rotation because the longer an auditor engages a client; the level of trust builds to the point where the auditor may decrease their audit effort.

Wang & Tuttle (2008) experimentally examine the effects of auditor rotation on auditor-client negotiations. Their findings suggested that mandatory firm rotation causes changes in the relationships between the auditor and the client, which increase the likelihood of non-cooperation resulting in an impasse between auditor and client. Further,

their findings indicate that, “negotiated asset values were more likely to diverge from client-preferred values with mandatory rotation” (Wang & Tuttle, 2008, 240). The effects of this conclusion extend beyond the auditor-client relationship and delve into the effect on the investor.

As described above, nearly all the prior research on auditor rotation has focused on the auditor-client relationship and how this relationship affects the overall audit quality and actual auditor independence. However, in a study closely related to my research question, Kaplan and Mauldin (2008) examine the relative effects of audit firm and audit partner rotation and the strength or weakness of the audit committee on investors’ perceptions of auditor independence and investors’ willingness to invest. That is, where others have focused on rotation’s effects on audit quality, Kaplan and Mauldin (2008) focus on the impact of rotation on investors’ judgments and investment choices. They did not find any difference between the two modes of audit rotation on auditor independence, but they did find that investor perceptions of auditor independence increased under a strong audit committee versus a weak audit committee (Kaplan and Mauldin, 2008).

The research question examined in this paper differs from Kaplan and Mauldin (2008) in that I incrementally explore whether the voluntary or mandatory nature of the rotation moderates the relative effects of audit firm and audit partner rotation on investor’s expectations of financial reporting aggressiveness and their willingness to invest. This question is important because companies could potentially voluntarily choose to rotate audit firms or to require their auditors to rotate engagement partners. Such voluntary rotation could be used as to signal a company’s commitment to

high quality financial reporting. However, a government mandate that audit firms or partners be rotated would eliminate that signaling mechanism and therefore potentially affects investors' perceptions of financial reporting quality and their willingness to invest.

III. HYPOTHESIS

According to its preamble, one of the primary purposes of the Sarbanes-Oxley Act (SOX) was to increase investors' confidence in financial statements and in the U.S. capital markets. Because SOX included a partner rotation requirement and demanded the study of firm rotation, the implementation of the SOX implied that Congress believed that such rotation would make improve investor's trust. Therefore, in this study I test this prediction that rotation will positively affect investor's confidence in reporting and will increase investors' willingness to invest.

Hypothesis 1a: Investor expectations of conservative reporting increases under the rotation regimes relative to the no rotation regime.

Hypothesis 1b: Investor willingness to invest increases under the rotation regimes relative to the no rotation regimes.

My second test is a replication of prior research. Kaplan and Mauldin (2008) did not find a significant difference in non-professional investors' financial reporting expectations or willingness to invest under audit firm rotation relative to audit partner rotation. Consistent with this prior research, I make the following null predictions:

Hypothesis 2a: Investor expectations of conservative reporting does not increase under the firm rotation relative to partner rotation.

Hypothesis 2b: Investor willingness to invest does not increase under firm rotation relative to partner rotation.

In this study, I also examine the relative effects of mandatory versus voluntary rotation, as well as no rotation on investor's willingness to invest in a company. Prior research in psychology and accounting suggests that people infer the intentions of others based on the choices other people make (Christ 2008). For example, in the absence of mandated auditor rotation, companies could voluntarily choose to implement a policy requiring that their audit partner or audit firm be periodically rotated. Investors could interpret such a choice as a signal that the company is committed to high quality financial reporting, transparency, etc. When law mandates auditor rotation, the potential for this signal is lost.

Therefore, I predict that voluntary rotation improves investors' trust in financial reporting and investor willingness to invest.

Hypothesis 3A: Investor expectations of conservative reporting increases under voluntary rotation relative to mandatory rotation.

Hypothesis 3B: Investor willingness to invest increases under voluntary rotation relative to mandatory rotation.

IV. METHODOLOGY

Participants

I address my research questions using a laboratory experiment in which 55 volunteers recruited from an MBA course at the University of Mississippi review an investment case and make judgments in the role of investors.^{1,2} Before proceeding with their task, each participant signed a consent form, confirming that they understood that they were voluntarily participating in this study and that their identities would remain anonymous. As part of the case, the participants completed a questionnaire that included questions regarding their demographic and other background information including age, years of work experience, gender, investment experience, and a self-assessment of their ability to understand financial statements. Table 1 provides a summary of their responses. The students were not asked to put their name or any other identifying personal information on the materials given to them, so as to maintain their anonymity during the study.

¹ The participants were recruited from one MBA course in the Patterson School of Accountancy. These participants received bonus points in that course in exchange for their participation.

² The University of Mississippi Institutional Review Board (IRB) reviewed participant materials for this study and provided approval of the use of human subjects.

The scenarios were given to Ole Miss MBA students with those students taking on the role of investors tasked with making certain investment related judgments and decisions. By asking them to take on the role of the investor, I am able to learn whether the different auditor rotation treatments affect their expectations of conservative financial reporting and their willingness to invest in the company.

Experimental Methodology and Design

The experiment took place in two different sessions, with a total of fifty-five students participating in the study. The participants were given a set of materials that were developed based on case materials used by Kaplan and Mauldin (2008). These materials described a publicly traded company, International Auto Parts (IAP). The background information on the company included relevant pre-audit balances, such as sales, total assets, and earnings per share. Participants are told that the same audit firm has audited IAP for the last five years. However, depending on the treatment condition, participants are provided with different information regarding auditor rotation policies. Specifically, participants were assigned to one of the following five treatments conditions:

- A: Control, neither the audit partner or audit firm rotated
- B: Mandatory audit firm rotation
- C: Mandatory audit partner rotation
- D: Voluntary audit firm rotation
- E: Voluntary audit partner rotation

The materials in all of the treatment conditions described all of the potential treatments so that each participant was aware that other auditor rotation policies could exist. The materials also clearly explained which specific treatment the company was operating under.

The materials were labeled A-E, to make it easier to analyze the results. The materials were coded this way so that each scenario would be evenly distributed to gather a large enough sample for results. The materials were coded with the letter and a number so that I would know how many sets of each treatment were distributed. The materials were placed in consecutive order A1 to E1 and the order was repeated for 2, 3 and so on. Then I distributed the materials to the participants' in that sequence in order to ensure I would have an equal sample sizes for each treatment.

The materials included a description of the role of the audit committee and the audit partner to make sure that all of the participants had the same basic understanding of these two roles. Also, a short description of auditor rotation was included to explain the role of rotation in audits. These were all included in the materials because I wanted the participants to all be exposed to the same basic knowledge as some of the participants may have had a background in accounting and would already know these terms

After reading the background and audit rotation requirements, the participants were told that during the audit, the auditors uncovered an audit difference and that the difference caused the earnings per share to be overstated. The questions that followed asked the participants to report the level of earnings-per-share (EPS) that they expected to ultimately be reported in the financial statements. There were four options for their expectations of reported EPS: \$1.07, \$1.08, \$1.09, and \$1.10. If the expected EPS was

lower, then the investor was expecting more conservative reporting, and if the expected EPS was higher then the investor was expecting more aggressive reporting. In addition, the participants were asked “What is the likelihood that you would invest in this company?”. Responses were provided on a seven-point Likert scale that ranged from “highly unlikely” to “highly likely”.

V. RESULTS

The participants included 55 MBA students and Table 1 provides summary demographic and background information regarding all of the participants. This table is importantly demonstrates the participants' background professional experience, investing experience and self-assessed ability to understand financial statements. On average, my participants have 1.6 years of professional work experience, about 63% have owned stock, and on average, they judge their ability to understand financial statements as a 4.0 on a 7 point scale where 1 indicates very low ability and 7 indicates very high ability. This background information provides a basis for classifying the participants' as non-professional investors.

Table 2 shows the demographic and background information of the participants by experimental condition. The participants were randomly assigned to experimental conditions with eleven participants' in each condition. This random assignment is expected to result in an even distribution of the prior experience that could influence the way in which my manipulated variables affect investor judgments. Untabulated ANOVAs indicates that these demographic and background variables do not differ among experimental conditions, except for experience owning stock, which did not qualitatively affect the results.

Table 1: Demographic Profile of All Experimental Participants

	Mean	SD. Deviation
All Conditions		
Age	23.182	2.099
Years of Professional work experience	1.636	2.107
Gender (0 = male, 1 = female)	0.545	0.502
Experience owning stock (0 = no, 1 = yes)	0.636	0.511
Ability to understand financial reporting (1 = very low, 7 = very high)	4.045	1.345

Table 2: Profile of the participants in the five experimental treatment conditions

	Mean	SD. Deviation
Condition A		
Age	23.000	1.991
Years of Professional work experience	1.636	2.976
Gender (0, male or 1, female)	0.545	0.522
Experience owning stock (0, no and 1, yes)	0.636	0.592
Ability to understand financial reporting (1, very low to 7, very high)	4.045	1.457
Condition B		
Age	23.727	2.453
Years of Professional work experience	1.455	2.207
Gender (0, male or 1, female)	0.455	0.522
Experience owning stock (0, no and 1, yes)	0.455	0.522
Ability to understand financial reporting (1, very low to 7, very high)	4.045	1.193
Condition C		
Age	23.545	2.018
Years of Professional work experience	1.955	1.710
Gender (0, male or 1, female)	0.364	0.505
Experience owning stock (0, no and 1, yes)	0.091	0.302
Ability to understand financial reporting (1, very low to 7, very high)	4.182	1.677
Condition D		
Age	23.636	2.248
Years of Professional work experience	1.455	2.162
Gender (0, male or 1, female)	0.364	0.505
Experience owning stock (0, no and 1, yes)	0.545	0.522
Ability to understand financial reporting (1, very low to 7, very high)	3.500	1.597
Condition E		
Age	23.000	2.098
Years of Professional work experience	0.636	1.343
Gender (0, male or 1, female)	0.545	0.522
Experience owning stock (0, no and 1, yes)	0.909	0.302
Ability to understand financial reporting (1, very low to 7, very high)	3.773	0.786

Recall that Hypothesis 1a and 1b predicted that investor expectations of conservative reporting and their willingness to invest would increase under rotation regimes relative to no rotation regimes. As shown in Table 3, Panel A, the mean and standard deviation (SD) of expected earnings per share are 1.54 (0.934) and 2.00 (1.057) under the no rotation regime and combined rotation regimes, respectively, indicating that non-professional investors expect more conservative reporting when there is no rotation of any kind. While this result is contrary to Hypothesis 1a, this difference is not statistically significant ($t = -1.40, p = 0.17$). In Table 4, Panel A, the mean and standard deviation (SD) of investor willingness to invest are 3.68 (1.876) and 3.47 (1.014) under no rotation regime and rotation regimes, respectively. According to the results, investors are slightly more willing to invest under no rotation relative to rotation regime, which is inconsistent with Hypothesis 1b. However, this difference is also not significant ($t = 1.54, p = 0.15$).

Table 3: Analysis of expected EPS^a

Panel A: Descriptive Statistics		Auditor Rotation		
Rotation	Partner	Firm	Combined	Control
	N	N	N	
	Mean	Mean	Mean	
	(SD)	(SD)	(SD)	
Voluntary	11	11	22	
	2.55	1.82	2.18	
	(1.04)	(1.25)	(1.18)	
Mandatory	11	11	22	
	1.64	2.00	1.82	
	(0.92)	(0.89)	(0.91)	
Combined	22	22	44	
	2.09	1.91	2.00	
	(1.06)	(1.06)	(1.06)	
Control				11
				1.54
				(0.93)

Panel B: ANOVA-Expected EPS			
Effect	df	F	Prob.
Firm Rotation vs Partner			
Rotation	1	0.34	0.56
Voluntary Rotation vs			
Mandatory Rotation	1	1.36	0.25
Interaction of Effects	1	3.05	0.09

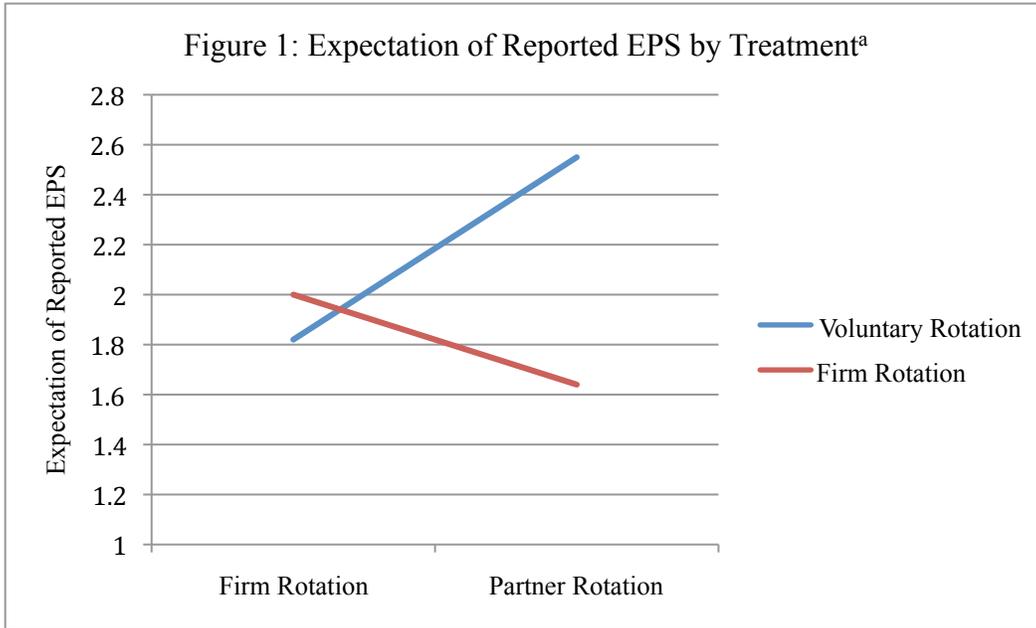
^a Participants indicated expected EPS of either \$1.07, \$1.08, \$1.09, or \$1.10; however, I have recoded these choices to 1, 2, 3 and 4, respectively.

Table 4: Analysis of investors' willingness to invest^b

Panel A: Descriptive Statistics Rotation	Auditor Rotation			Control
	Partner	Firm	Combined	
	N	N	N	
	Mean	Mean	Mean	
	(SD)	(SD)	(SD)	
Voluntary	11	11	22	
	3.32	3.32	3.32	
	(0.75)	(0.90)	(1.15)	
Mandatory	11	11	22	
	3.50	3.73	3.61	
	(0.98)	(0.75)	(0.86)	
Combined	22	22	44	
	3.41	3.52	3.47	
	(1.18)	(0.84)	(1.014)	
Control				11
				3.68
				(1.88)

Panel B: ANOVA-investors willingness to invest			
Effect	df	F	Prob.
Firm Rotation vs Partner			
Rotation	1	0.13	0.72
Voluntary Rotation vs			
Mandatory Rotation	1	0.89	0.35
Interaction of Effects	1	0.13	0.72

^b Measured on a seven point scale 1 (highly unlikely) to 7 (highly likely)



^a Participants indicated expected EPS of either \$1.07, \$1.08, \$1.09, or \$1.10; however, I have recoded these choices to 1, 2, 3 and 4, respectively.

Hypothesis 2a makes the null prediction that investor expectations of conservative reporting will not be higher under the firm rotation regime relative to the partner rotation regime. Table 3, Panel A indicates that the mean and standard deviation of earnings per share are 1.91 (1.07) and 2.09 (1.07) for firm rotation and partner rotation, respectively, indicating that investors' expected more conservative reporting under firm rotation relative to partner rotation, which supports Hypothesis 1a. Table 3, Panel B indicates that this main effect is not significant; therefore, I do not reject the null prediction of Hypothesis 2a.

Hypothesis 2b similarly suggests that investor willingness to invest will not be higher under firm rotation relative to partner rotation. The mean and standard deviation of investors' willingness to invest are 3.52 (0.84) and 3.41 (1.18) for firm rotation and partner rotation, respectively, and are shown in Table 4, Panel A. According to the ANOVA in Table 4, Panel B, there is no significant difference between the two means. Firm rotation was only slightly higher than partner rotation, but there was not enough of a difference to say that investors' preferred one to the other. Panel B shows that the difference between firm rotation or partner rotation is only slightly significant ($F = 0.13$, $p = 0.72$) and so only slightly influences investors' willingness to invest.

Hypothesis 3a and 3b predicted the effects of voluntary and mandatory rotation on expectations on conservative reporting and willingness to invest. Hypothesis 3a predicted that investor expectations of conservative reporting increased under voluntary rotation relative to mandatory rotation. As show in Table 3, Panel A, the mean and standard deviation are 2.18 (1.18) and 1.82 (0.91) for voluntary rotation and mandatory rotation, respectively. This result indicated that, contrary to Hypothesis 3a, investors expected

more conservative reporting under mandatory rotation relative to voluntary rotation. However, according to the ANOVA in Table 3, Panel B, this difference is not significant ($F = 1.36, p = 0.25$).

Hypothesis 3b predicted that investor willingness to invest would increase under voluntary rotation relative to mandatory rotation. Table 4, Panel A summarizes the means and standard deviations related to this hypothesis. The mean and standard deviation are 3.32 (1.15) and 3.61 (1.01) for voluntary rotation and mandatory rotation, respectively. Contrary to the prediction in Hypothesis 3b, investors are more willing to invest when mandatory rotation occurs for audit partner or firms than when they are voluntarily rotated. Panel B in Table 4 indicates that the difference in investor willingness to invest between the voluntary rotation and mandatory rotation conditions is not significant ($F = 0.89, p = 0.35$).

It is important to note that while the main effects of partner/firm rotation and voluntary/mandatory rotation are not significant and do not support my hypothesis, these two variables do interact to affect investor expectations of conservative financial reporting. Specifically, as indicated in Table 3 and Figure 1, under firm rotation, there is little difference in investors' financial reporting expectations between the mandatory and voluntary rotation conditions (2.00 and 1.82, respectively). However, under the partner rotation condition, the difference in investor expectations between the mandatory and voluntary rotation conditions is larger (1.64 and 2.55, respectively). The interaction term in the ANOVA in Table 3, Panel B suggests that these differences are not due to chance ($F = 3.05, p = 0.09$).

VI. CONCLUSION

My study examines important questions regarding audit rotation and investor behavior that have been the subject of many debates among standard setters but have been the subject of little previous academic research. This study focuses on non-professional investors and their investment behavior under various rotation conditions. Specifically, I explore the relative effects of partner and firm rotation as well as mandatory versus voluntary rotation on investors' expectations of conservative reporting and their willingness to invest.

In general, the results of the study indicate little difference in investor expectations of conservative reporting and willingness to invest under the various rotation conditions. However, when rotation is required, the investors' expect more conservative reporting and exhibit a greater willingness to invest when the rotation is mandatory when only the partner is required to rotate. These results are important as they indicate that, contrary to the beliefs of proponents of auditor rotation, non-professional investors are not necessarily more trusting of company management or more willing to invest when auditor independence is enhanced through rotation.

As with any experimental research, there are always limitations. My study used MBA students to take on the role of the non-professional investor. Therefore, my results may not generalize to populations that include more sophisticated, professional investors.

The case materials used in this study describe a fictitious company with a only a limited amount of information being given to the participants. The participants were provided with few details of the company and their auditors, and while this enhances the degree of experimental control, real-world investors would likely have access to much more information about the company. It is possible that investors would behave differently when more comprehensive information is provided.

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APPENDIX

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September, 2012

Thank you for participating in this study of investor decision-making based on financial and non-financial information. This is a great opportunity for you to contribute in a meaningful way to research. Our research, along with the work of others, is intended to advance our understanding of the financial reporting process and be informative to financial reporting policy setters.

The study takes about 10-15 minutes and involves reading a brief scenario describing a public company preparing their annual financial statements. During the audit, the auditor discovers a potentially important audit difference. An audit difference occurs when the company has recorded an event and/or transaction in the financial statements differently than the auditors believe is appropriate under generally accepted accounting principles. Following the scenario, you will be asked to provide your impressions about the outcome and the behavior of management, the auditor, and the audit committee, and then answer some questions about your background.

In the scenario many of the complexities of the actual decision making environment have been simplified to limit the demands of your time as well as to aid interpretation of your responses. The validity of this study and its contribution depend on your cooperation. While the scenario is brief, it is important that you read and attend to the material carefully. Also, because there are several versions of the scenario, it is important that you complete your questionnaire independently.

You are not identified in any way on any form. No forms are numbered and we do not ask your name at any time. Your participation is voluntary and you can quit at any time. If you have any questions, please contact me at Kbmaynor@go.olemiss.edu. For additional information regarding human participation in research, please feel free to contact the Campus IRB Office.

Thank you for your participation.

Kelsey Maynard

Background

On the next page, you will be asked to estimate a typical, publicly traded, company's response to a set of circumstances. When making that assessment, assume the following about the company and its financial reporting process.

International Auto Parts (IAP) is a publicly traded medium-sized automobile parts manufacturer and it is headquartered in a legal jurisdiction **outside** of the United States. IAP's **management** is responsible for preparing and certifying the company's financial statements.

The **independent auditor**, an international public accounting firm, is responsible for auditing the financial statements. Legal jurisdictions around the world vary in whether audit firms are limited in the number of years they may audit a particular company. Among jurisdictions that do not require this accounting firm rotation, some limit the number of years an audit partner may be associated with the audit of a particular company. In jurisdictions where neither firms nor partner are limited in the number of years, the firms can be associated with a particular client as long as they like. Some voluntarily rotate their audit periodically or ask their audit firms to rotate the partner of the audit. Some jurisdictions put these limitations in place, but this jurisdiction does not require the audit partner or the audit firm to be limited in the number of years associated with a company. The company has chosen not to rotate voluntarily. The **audit committee** of the Board of Directors is responsible for overseeing the conduct of these activities by management and the independent auditor.

B: [The **independent auditor**, an international public accounting firm, is responsible for auditing the financial statements. Legal jurisdictions around the world vary in whether audit firms are limited in the number of years they may audit a particular company. Among jurisdictions that do not require this accounting firm rotation, some limit the number of years an audit partner may be associated with the audit of a particular company. In jurisdictions where neither firms nor partner are limited in the number of years, the firms can be associated with a particular client as long as they like. Some voluntarily rotate their audit periodically or ask their audit firms to rotate the partner of the audit. Some jurisdictions put these limitations in place, and this jurisdiction does require the audit firm to be limited in the number of years associated with a company. The company has chosen not to rotate voluntarily. The **audit committee** of the Board of Directors is responsible for overseeing the conduct of these activities by management and the independent auditor.]

C: [The **independent auditor**, an international public accounting firm, is responsible for auditing the financial statements. Legal jurisdictions around the world vary in whether audit firms are limited in the number of years they may audit a particular company. Among jurisdictions that do not require this accounting firm rotation, some limit the number of years an audit partner may be associated with the audit of a particular company. In jurisdictions where neither firms nor partner are limited in the number of years, the firms can be associated with a particular client as long as they like. Some

voluntarily rotate their audit periodically or ask their audit firms to rotate the partner of the audit. Some jurisdictions put these limitations in place, but this jurisdiction does not require the audit partner to be limited in the number of years associated with a company. The company has chosen not to rotate voluntarily. The **audit committee** of the Board of Directors is responsible for overseeing the conduct of these activities by management and the independent auditor.]

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Audit Committee

The audit committee reports to and acts on behalf of the Board of Directors and is composed of 3 members.

- **All members** are independent outside directors (i.e., no relationship between the directors and the company or its officers).
- Two of the members are CPAs. All three are financial experts as defined by the SEC.

During the year the audit committee meets 6 times. At each meeting, the committee meets the senior members of management, the vice president of internal audit, and the independent auditors in *private, separate* sessions.

Audit Differences

Recall that an audit difference occurs when the company has recorded an event and/or transaction in the financial statements differently than the auditors believe is appropriate under generally accepted accounting principles. Such an audit difference is considered an **uncorrected audit difference** when management does not change the financial statements. No adjustment to the financial statements is needed if management, audit committee, and the audit partner believes that the dollar amount of the audit difference is immaterial to the financial statements taken as a whole.

Audit Partner Role

The objective of the audit is to assess risk management and negotiate with management about misstatements on the financial statements. The audit report is the final product of the audit and it is the way auditors communicate the audit findings to the users. The role of the audit partner is to lead a team of auditors and managing the audit. The audit partner is also in charge of collecting evidence to verify the financial statements.

IAP has just completed the process of preparing their annual financial statements. For the current year, relevant *pre-audit* balances were:

Sales	\$1,300 million
Total assets	\$1,100 million
Inventories	\$ 375 million
Net earnings	\$ 110 million
Earnings Per Share (EPS)	\$ 1.10 per share

Analysts' Consensus Forecast:

As a public company, the company's stock has attracted a modest following by financial analysts. For the current year, financial analysts' consensus EPS forecast for IAP is:

Forecasted EPS	\$ 1.09 per share
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Audit Difference:

During the audit, the auditor uncovered only one potentially important audit difference. The difference is due to management's estimate of the inventory obsolescence allowance. The auditor believes that the recorded allowance is outside a reasonable range by an amount that **overstates current earnings per share by \$.03** (2.7% of earnings, .08% of inventory, and .02% of total assets).

Required: Based on the information above and assuming the new proposal on the preceding page is in effect, please answer the following questions.

1. The most likely EPS amount a public company such as IAP would **finally report** in the audited financial statements for the year is (circle one):

\$1.07	\$1.08	\$1.09	\$1.10
All of the audit difference corrected			None of the audit difference corrected

2. The proportion of public companies in similar circumstances that would **finally report** each of these audited EPS amounts for the year is (fill in each blank; amounts should total to 100%):

EPS	\$1.07	\$1.08	\$1.09	\$1.10
Percent Reporting	_____ %	_____ %	_____ %	_____ %

3. An item becomes “material” when it would affect the decisions of a reasonably informed financial statement user. Please indicate your impressions of the relative **materiality** of the described audit difference of \$.03 per share.

----- ----- ----- ----- ----- -----	
Not Material	Highly
At All	Material

4. What is the likelihood that you would invest in this company?

----- ----- ----- ----- ----- -----	
Not at All	Highly
Likely	Likely

Additional Questions

Without looking back, please answer the following questions about the IAP’s scenario.

1. Actual earnings per share will **miss** (be below) the analysts’ consensus forecast if management fully corrects the audit difference.

----- ----- ----- ----- ----- -----	
Completely	Completely
Disagree	Agree

- 2 Please rate IAP’s **audit committee** along the following dimensions:

Background Questions

1. What is your gender? Male Female
2. How many years of professional work experience do you have? ____ years
3. How old are you? ____ years
4. Do you currently own or have you owned stocks in the past? Yes No
5. Please assess your understanding of financial reporting.

|-----|-----|-----|-----|-----|-----|
 Very low very high

6. In general, how important are the following groups in improving the credibility of financial reporting by companies?

a. Management |-----|-----|-----|-----|-----|-----|
Not important very important

b. Audit Committee |-----|-----|-----|-----|-----|-----|
Not important very important

c. External Auditor |-----|-----|-----|-----|-----|-----|
Not important very important

7. Are you currently, or have you in the past been, a board member of a public company? Yes No
8. Are you currently, or have you in the past been, an audit committee member of a public company? Yes No

9. Are you currently, or have you in the past been, an outside auditor? Yes No
10. Are you currently, or have you in the past been, part of the management team responsible for financial reporting? Yes No

Attitudes about Management and Auditing

Please indicate the extent to which you agree with each of the statements by placing a mark on the scale that most closely corresponds to your belief.

1. The financial statements contained in the annual report to stockholders are the result of a negotiation process between management and their external auditors.

Strongly disagree |-----|-----|-----|-----|-----|-----| Strongly agree
neutral

2. Higher uncertainty about uncorrected audit differences reduces the overall credibility of the annual audited financial statements.

Strongly disagree |-----|-----|-----|-----|-----|-----| Strongly agree
neutral

3. Higher uncertainty about uncorrected audit differences reduces the overall trustworthiness of the annual audited financial statements.

Strongly disagree |-----|-----|-----|-----|-----|-----| Strongly agree
neutral

4. My assessment of the trustworthiness of the annual audited financial statements strongly influences my investment decision.

Strongly disagree |-----|-----|-----|-----|-----|-----| Strongly agree
neutral

Thank you for participating in this study.