

Conservative Reporting and Incremental Effect of Mandatory Audit Firm Rotation Policy - Comparative Analysis of Audit Partner Rotation vs Audit Firm Rotation, Evidence from South Korea

Abstract

In this paper, we take advantage of Korea's unique experiment with mandatory audit firm rotation (MAFR) and mandatory audit partner rotation (MAPR) to ascertain their influence on audit quality, proxied by conditional conservatism. Overall, we find that the implementation of MAFR did not have the desired effect. Firms that adopted MAFR demonstrate higher levels of conservatism in previous periods, under MAPR (or compared to voluntary adopters). Furthermore, we find that audit tenure increases conservatism levels consistent with the auditor expertise hypothesis. However, whilst evidence suggests MAFR decreases audit quality on the whole, we find that firms that switch from Non-Big4 to Big4 auditors demonstrate higher conservatism because Big4 auditors are more likely to demand conservative accounting practices, consistent with Big4 audit firm knowledge-superiority. Overall, the results suggest that MAFR's negative effect on audit quality can be mitigated by Big4 auditor supervision.

Keywords: Mandatory audit firm rotation; conservatism; Big4; South Korea; audit quality

I. Introduction

Following the 1997 Asian Financial crisis and several high-profile firm defaults between 2001 and 2003, the South Korean government has experimented with numerous audit policies to improve accounting quality. In this paper, we examine the differing levels of accounting conservatism under two different audit rules, mandatory audit firm rotation (MAFR henceforth) and mandatory audit partner rotation MAPR (henceforth). Further, we test whether switching from non-Big4 to Big4 auditors can improve audit quality.

MAPR is a rule that requires a firm to rotate an audit partner within the same audit firm. The benefits of MAPR is that client specific knowledge can be transferred to incoming audit partners. The disadvantage of such a close audit firm-client relationship is the increased

potential for collusion. Based on the entrenchment hypothesis, audit firms are more likely to impair their independence and reduce audit quality to retain business. The MAFR policy requires firms to periodically change audit firm. MAFR can be considered a policy with the potential to reduce collusion between audit firms and clients. The South Korean context is unique because South Korea is the very first to adopt MAFR based on the auditor entrenchment hypothesis after SOX in 2002. MAPR was adopted on a voluntary rolling basis. Therefore, it is possible to compare the same firm under different auditing regimes in two different periods, the MAPR sample (2000–2005), and the MAFR sample (2006–2009). Where possible, we compare MAFR firms with firms that rotate their auditor voluntarily (VOLR henceforth).

Our study is motivated by three caveats. First, in recent years, there has been controversy whether mandatory audit firm rotation is associated with an incremental increase in audit quality. The majority of previous studies investigate the association between audit firm tenure and audit quality, testing the expertise vs entrenchment hypothesis; however, these studies fail to find the consistent evidence. Previous studies attempt to examine the effect of an auditor rotation regime; but do not compare the direct effect of audit partner rotation vs audit firm rotation. In most countries, the key question is whether mandatory audit firm rotation can incrementally improve audit quality under the current mandatory audit partner rotation rule when practiced. Because audit firms and corporations (for example in Korea) believe that the audit partner rotation rule is already sufficient to have the desired effect whereas regulators such as PCAOB still insist the need for MAFR, it is important to directly examine the incremental effect of MAFR on audit quality whilst the existing MAPR is in effect. South Korea's unique experience provides a perfect environment for this comparison since it's the only country that adopted MAFR while retaining MAPR since SOX, 2002.

Second, our study is also motivated by the opposing policy decisions made by the world's two largest economic regions, the U.S. and the E.U. The PCAOB suggested that U.S. firms should be required to adopt mandatory audit firm rotation; however the rule has been rejected by legislators because the social and financial costs were considered to out-weigh the benefits of a "fresh look". The EU has approved a mandatory audit firm rotation rule that requires audit firms to rotate engagements with public interest entities every 10 years. Therefore, the gap between the U.S. and the EU in knowledge or belief about the incremental effect of MAFR can be regarded as of importance to potential countries that consider MAFR adoption. Third, the incremental effect of MAFR on audit quality can vary depending on the audit firm switch type or the length of the auditor-client relationship prior to rotation. The majority of previous studies examine the pure effect of MAPR (or MAFR) whilst ignoring

these important dimensions. Our study is motivated by whether Non-big4 to Big4 switch type and consecutive audit tenure before the rotation significantly influences the effect of MAFR on audit quality.

Based on the above motivation statements, we develop this study to answer three questions. First, we examine the incremental effect of MAFR on accounting quality proxied by accounting conservatism. In a Korean setting, there is evidence that MAFR has decreased audit quality using abnormal accruals as proxies for audit quality (Kwon et al., 2014). However, we are the first to examine the influence of mandatory audit rotation on conservatism in South Korea. In South Korea, MAFR was implemented based on the entrenchment hypothesis, the belief that familiarity may cause auditors and clients to collude which leads to an impairment of auditor independence. To establish the potential positive/negative effect of MAFR on audit quality, we test whether the levels of conditional conservatism will be different after firms adopt mandatory audit firm rotation. Using mean-difference tests and conditional conservatism regression analysis, we find that after the adoption of MAFR, a firm's conservatism level decreases compared to prior periods under the MAPR rule. Furthermore, we find that firms that adopted MAFR are less conservative than firms that voluntarily rotated their auditors. These results suggest that MAFR did not have the desired effect in South Korea. Based on the entrenchment hypothesis, the South Korean government would expect accounting conservatism to increase after MAFR. However, we find evidence conservatism decreases consistent with the auditor expertise hypothesis.

Secondly, we directly test the auditor expertise/entrenchment hypothesis by examining the relationship between audit tenure and conditional conservatism. There is evidence that audit tenure increases (Johnson et al., 2002; Geiger and Raghunandan, 2002; Myers et al., 2003; Lee et al., 2009; Turel et al., 2017) and decreases with audit quality (Deis and Giroux, 1992; 1998; Ryan et al., 2001; Casterella et al., 2002; Elder et al., 2015, Blandon and Bosch, 2015). To test the expertise/entrenchment hypothesis, we use a dummy variable approach to compare the level of conservatism of firms with audit tenures of more than 8 years and firms with audit tenures of less than 8 years. We find that the levels of conservatism for firms with audit tenures of more than 8 years are higher than firms with lower tenures. These results are again consistent with the auditor expertise hypothesis.

Thirdly, we test the influence of Big4 auditors on a firm's conservative practices. Auditors prefer conservative accounting practices (Lys and Watts, 1994; Chi and Weng, 2014). Studies show the audit quality of Big4 auditors is higher than Non-Big4 because of potential litigation risk (DeAngelo, 1981; Becker et al., 1998; Khurana and Raman, 2004; Behn et al., 2008). Big4 accounting firms have higher audit quality compared to Non-Big4 firms because they have

high levels of accumulated accounting knowledge, are not income dependent on large clients and have major incentives to avoid reputational damage (DeAngelo, 1981; Basu et al., 2001). We find that the level of conservatism of firms that are rotated from Non-Big4 to Big4 auditors increase compared to other switch types. The results show that the positive effect of the Non-Big4 to Big4 switch type outweighs the negative effect of mandatory audit firm rotation on audit quality, consistent with Big4 audit firm knowledge-superiority.

Cameran et al.'s (2016) study of Italian firms is the study that is most closely related with ours. They compare the audit quality of firms using accrual based conservatism proxies to compare audit quality in 3 different MAPR tenures (9 years). They find that auditors demand higher levels of conservatism in the final MAPR three-year period compared to the previous two MAPR periods because auditors have an incentive to 'clean up' financial statements before handing them to a new audit firm. Our study differs from Cameran et al., (2016) because we compare the accounting conservatism practices of MAPR firms that subsequently adopt MAFR. To the best of our knowledge, we are the very first to compare the accounting conservative practices of firms that have been mandated to adopt the mandatory audit firm rotation rule after the mandatory audit partner rule with consideration of audit tenure and switch type effect.

We contribute to the literature in several ways. First, we provide consistent evidence in favor of the auditor expertise hypothesis suggesting that the benefits of a 'fresh look' has a more serious effect on audit quality compared to perceived collusion between auditors and clients. Overall, our results suggest that the establishment of MAFR in South Korea based on the auditor entrenchment hypothesis was miss-specified. With regards to conservatism, MAFR had a negative effect in South Korea. Second, we contribute to the ongoing debate about auditor tenure relating to the auditor entrenchment / expertise hypothesis. Whilst the literature regarding the relationship between audit tenure is mixed, we find evidence that in a Korean setting audit tenure has a positive effect on audit quality and enhances conservatism practices. This evidence is also consistent with the auditor expertise hypothesis. Finally, we contribute to audit partner/firm rotation studies with evidence that whilst MAFR has had a negative effect on audit quality, the incremental negative effect can be reduced in situations where firms are rotated from Non-Big4 to Big4 auditors. This evidence supports the argument that a reduction in audit quality may be related to the auditor's specific knowledge rather than the rotation process itself. Thus, overall, we find evidence that increased cumulative specific audit knowledge has the potential to increase a firm's conservatism; however, results suggest that MAFR's negative effect on audit quality can be mitigated by Big4 auditor supervision.

The rest of this paper is organized as follows. In section II, we review the Korean institutional setting, relevant literature and develop hypotheses. In section III, we explain the research design. In section IV, we explain the results of empirical tests. In section V, we present additional robustness tests. Section VI concludes.

II. Previous Literatures and Hypotheses

2.1 The Korean Institutional Setting

Relative to developed markets, Korea's legal enforcement can be considered weak (La Porta et al., 1997; Woods, 2013). Because of the Korea's comparatively weak regulation, the government has experimented with several audit policies. Prior to 1982, under the 'auditor designation rule', the SSB (Securities Supervisory Board, the predecessor of FSC) assigned firms with an auditor of their choosing. In 1982, firms were given an opportunity to select an audit firm under the 'free audit engagement rule'. This decision was in-line with international trends, the increased interdependence of global markets and the need for accounting information to be comparable globally (see Lee et al., 2013). After the 1997 Asian Financial Crisis, the FSC introduced legislation to require firms to retain auditors for three consecutive years with the purpose of protecting auditor independence by preventing conflict between clients and audit firms. Furthermore, the FSC also introduced a rule to rotate partners within an audit firm every five years to prevent familiarity threats based on the assumption of the auditor entrenchment hypothesis. In 2000, after investigators discovered that window dressing contributed to the demise of Daewoo, one of Korea's largest conglomerates in 1999, the FSC strengthen MAPR by requiring firms to rotate audit partners every 3 years.

In 2003, a period in which firms were under mandatory partner rotation legislation, earnings manipulation and overstatement of earnings caused successive bankruptcies of large Korean firms known as chaebols. As a result, in 2003, the SSB promulgated the mandatory audit firm rotation policy (MAFR), further strengthening safeguards against familiarity threats. MAFR required firms to rotate their "audit firm" every 6 years. MAFR became fully effective in 2006, but only lasted for 5 years until 2010. MAFR was terminated in 2010 with the adoption of IFRS (2009/3) because of the additional expense of practicing two different types of regulation. The adoption of MAFR was influenced by the passage of SOX, in the U.S.A, in 2002. In 2003, the American legislative body, PCAOB was established to examine the benefits of MAFR; however, the policy has not been adopted in the U.S. on the grounds the perceived benefits would not exceed social costs.

Therefore, South Korea's unique experiment provides an opportunity to compare the levels of accounting conservatism between MAFR (2006-2009) and the audit quality of two benchmark groups, MAPR the same firm in prior periods (2000-2005), and firms that adopt the policy on a voluntary basis (VOLR) in MAFR periods (2006-2009). MAFR and MAPR have significantly different bases and implications. MAPR and MAFR are considered a safeguard against familiarity threats; however, based on the entrenchment hypothesis, MAFR can be considered a more robust safeguard because the rule requires a firm to adopt a "new audit firm". The basis for MAFR adoption is the potential reduction of collusive relationships between clients and audit firms at the expense of a loss of accumulated client specific knowledge; the basis of MAPR is the retention of client specific knowledge under the supervision of a different partner, preventing the loss of firm-specific knowledge. Therefore, a key question is whether the benefit of preventing familiarity threats to protect auditor independence exceeds the cost of deteriorating auditor expertise due to the loss of client specific knowledge. It is theorized that the close relationship between auditors and clients was the cause of numerous firm bankruptcies. A regular change in audit partner was believed to reduce collusion between clients and audit firms. As a result, a "fresh look" was believed to improve the audit quality of South Korea generally. However, South Korea is the first country to adopt MAFR after the high profile accounting scandals and passage of SOX in 2002. South Korea mandated MAFR when very little was known about its effect on conservatism. Critics of MAFR believe that MAFR is more likely to reduce audit quality because of the loss of firm specific knowledge. The potential influence of MAFR on accounting quality is an ongoing debate.

2.2 Previous Literature

MAPR is relatively wide spread globally. However, MAFR is only practiced in a handful of countries such as Brazil, Italy and more recently the E.U. An important consideration for the implementation of the mandatory firm rotation policy is the potential collusive behavior between audit firms and their clients based on the auditor entrenchment hypothesis. In the literature, a consensus has not been established regarding the relationship between audit tenure and audit quality. Proponents of audit firm rotation believe that familiarity between auditors and clients impairs auditor independence consistent with audit quality decreasing with audit tenure (Deis and Giroux, 1992; 1998; Ryan et al., 2001; Casterella et al., 2002; Elder et al., 2015).

On the other hand, opponents of mandatory audit firm rotation believe that audit firm rotation can lead to a loss of audit knowledge. Based on the audit expertise hypothesis, there is evidence that audit failures are more likely to occur in the initial stages of audit tenure due to a loss of cumulative knowledge (Peirre and Anderson, 1984; Arrunada and PazAres, 1997; Johnstone and Bedard, 2004; Cercello and Nagy, 2004; Chen et al., 2008). Numerous studies find that as audit quality increases with audit tenure (Johnson et al., 2002; Geiger and Raghunandan, 2002; Myers et al., 2003; Lee et al., 2009; Turel et al., 2017).

Numerous studies directly examine the effect of the mandatory auditor rotation. For instance, Chi and Huang (2005) demonstrate that a firm's earnings quality is lower in the early stages of audit tenure after audit partner rotation. Carey and Simnett (2006) find that after partner rotation, there is an increased propensity to issue a going concern audit opinion. Chi et al. (2009) find no evidence that MAPR enhances audit quality; however, mandatory audit firm rotation entails significantly higher costs to both firms and auditors. Lennox et al. (2014) find that audit partners are motivated to 'clean up' financial statements before handing them over to a new partner. Kwon et al. (2014) compare the audit quality of Korean firms before and after 2006 using earnings management measures to compare long vs short term audit tenure samples. They find that audit fees after MAFR are statistically significantly higher after 2006.

Recent studies report more interesting findings. For instances, Arthur et al., (2017) suggest auditor rotation can enhance audit quality but only when both the incoming audit partner and the audit firm are industry specialists. Bell et al. (2015) find evidence of an unconventional 'U' shaped relationship between accounting quality and audit tenure. Thus, overall the relation between audit tenure and audit quality is mixed.

The majority of audit rotation studies almost exclusively focus on the accruals earnings management as proxies for audit quality because managing earnings is a measure of upside opportunity. Accounting conservatism reflects a firm's tendency to recognize "bad news" in a timelier manner than "good news" (Basu, 1997; Brown et al., 2001). Conservatism reduces a manager's opportunistic behavior and optimistic financial reporting (Ball and Shivakumar, 2005). Overall, accounting conservatism reduces downside risk. However, the cost and benefits of conservatism practices on financial statement data depends on the information users. There is evidence that conditional conservatism misinterprets financial performance (Givoly and Hayn, 2000). Accounting conservatism reduces the value relevance of financial statement data to reflect future stock prices (Collins et al., 1997; Lev and Zarowin, 1999; Francis and Schipper, 1999; Holthausen and Watts, 2001; Barth et al., 2001). Moreover, conservatism reduces earnings predictability and persistence (Dichiev and Tang, 2008; Chen

et al., 2014). Furthermore, conservatism is associated with increased analyst's errors (Pae and Thornton, 2010; Mensah et al., 2004; Louis et al., 2014). Overall, the 'cost' of accounting conservatism is perceived from a potential equity holder valuation perspective because conservatism has the potential to affect upside opportunity or potential gain on investment.

On the other hand, accounting conservatism can be considered beneficial to debt holders and the general (Xie, 2015). Information about downside risk is more important to lenders than upside opportunity because they are interested in the worst possible outcome (Ahmed et al., 2002; Watts, 2003; Zhang, 2008; Wittenberg-Moreman, 2008). Furthermore, from a corporate governance standpoint, downward bias on profits requires a higher degree of variability that reduces the opportunity for managers to manipulate compensation packages (Watts, 2003; O'Connell, 2006). Given the 'worst case scenario' basis of conservative accounting, the practice increases investment efficiency (Louis et al., 2012). LaFond and Watts (2008) theorize that market participants demand conservatism. Withholding gains may increase uncertainty, however recognizing losses immediately decreases information asymmetry (Francis et al., 2013; Kim et al., 2013; Ruch and Taylor, 2015). Therefore, considering the establishment of SOX was influenced by the demise of Enron and Worldcom, conservatism is in the interest of the general public because limiting downside risk decreases the role of government in firm bankruptcy. Conservatism reduces the opportunity for equity holders to estimate investment opportunity from a valuation standpoint, conservatism as a measure of downside risk is in the best interest of the general public as a measure of audit quality.

Accounting conservatism is considered to be an important accounting practice that validates financial reporting (Watts, 2003; Roychowdhury and Watts, 2007; Ball and Shivakumar, 2008; Zhong and Li, 2016). Audit quality can be defined as the combined probability of technical capability and auditor independence (DeAngelo, 1981). Detecting financial mismanagement is related to technical capability and is the primary objective of an auditor, thus auditors play an important role in determining earnings quality. Conservatism reduces auditors' liability exposure and induces auditors to increase the asymmetric timeliness of earnings in recognizing economic losses (Basu et al, 2001). Hence, audit firms could demand higher earnings quality by demanding more conservative reporting by their clients even in the case of increased audit risk (threat of auditor independence). Therefore, under the assumption that auditors provide audit services independent of the demands of their clients, managers' opportunistic behavior is restricted if firms exercises conservative reporting (especially aggressive reporting). Numerous archival studies on audit quality find that conditional conservatism is positively related with audit quality (e.g. Basu et al., 2001;

Chung et al., 2003; Francis and Wang, 2008), consistent with Simnet et al. (2016) who recently review 130 archival auditing studies for the past 20 years and summarize the measures of audit quality; thus, conditional accounting conservatism can be used as a plausible proxy for audit quality.

Numerous previous studies examine the effect of mandatory auditor rotation using conditional accounting conservatism as a proxy for audit quality. The results are mixed. Kramer et al. (2011) find that conservatism decreases as a firm's audit tenure increases. Jenkins and Velury (2008) find a positive association between conservatism and the relationship between auditor and client. Zerni et al. (2012) document that an auditor's deep expertise is not transferable across audit partners but tied into an audit partner's private human capital which can lead to a reduction in audit quality. Cameran et al. (2016) is the study most closely associated with ours. They compare the audit quality of Italian firms using conservatism models as proxies for earnings quality. Italy has enacted a rule in which firms must rotate audit partners every three years for 9 years. After 9 years, the client firm must rotate audit firms. They divide their sample into 3 separate 3 year periods to compare the audit quality of partner rotation in the first two audit partner tenures with the last. They show that the conservatism level of the firm in the final MAPR period is higher compared to the two preceding periods. In the first two MAPR periods, auditors were under less pressure to impair their judgment compared to the final period when auditors have an incentive to 'clean up' the financial statements in preparation for new auditors. Cameran et al. (2016) find that before Italian firms are required to transfer financial accountants to new auditors, they increase their levels of conservatism in comparison to other periods. Our study differs from Cameran et al., (2016) because we compare accounting conservatism practices before and after a firm is mandated to adopt a new audit firm.

In this paper we directly test the auditor expertise/entrenchment hypothesis by examining the relationship between audit tenure and conditional conservatism. Evidence consistent with the auditor entrenchment hypothesis would suggest that firms with longer audit tenures that were mandated to change audit firm would increase their level of conservatism because a longer client-partner relationship may encourage auditors to give a more favorable audit opinion than is justified. Evidence consistent with the auditor expertise hypothesis would suggest that longer audit tenures improve auditor specific knowledge and MAFR reduces conservatism levels.

As suggested above, studies that examine the relationship between audit tenure and audit quality provide mixed result. We test whether the type of audit switch can influence audit quality. Numerous studies find the audit quality of Big4 auditors to be higher compared to

Non-Big4 auditors using earnings management as a proxy for audit quality (DeAngelo, 1981; Becker et al., 1998; Khurana and Raman, 2004; Behn et al., 2008; Lisic et al., 2015). There are three reasons why Big4 accounting firms have higher audit quality compared to Non-Big4 firms. First, Big4 firms have developed audit systems and accumulated accounting knowledge over decades; thus, Big4 auditors have established systems and well trained staff. Second, Big4 auditors are not as income dependent on large clients as Non-Big4. Therefore, Big-4 firms are less likely to impair their independence to satisfy clients. Finally, Big4 audit firms have incentives to protect their reputation and to enhance their public image to avoid litigation risk (DeAngelo, 1981; Basu et al., 2001). In this study, we consider there will be a positive effect on audit quality after firms are audited by Big4 audit firms, after MAFR adoption.

Chi and Weng (2014) argue that Big 4 audit firms have incentives to require clients to practice in conservative accounting in order to minimize possible litigation risk and reputation damage. On the other hand, increased conservatism may raise the probability for incumbent audit firms to be switched due to understated performance (DeFond and Subramanyam, 1998). Cano-Rodriguez (2010) finds that a firm's conservatism is associated with audit switch type, more specifically with Big4 / Non-Big4 auditor switches. This evidence is consistent with Arthur's (2017 et al.) study showing that audit partner rotation can enhance audit quality but only when both the incoming audit partner and the audit firm are industry specialists. Therefore, overall, we expect MAFR's negative effect on audit quality can be mitigated by Big4 auditor supervision.

2.3 Hypotheses

Figure 1 illustrates the development of our first hypothesis. Due to the 1997 Asian Financial Crisis and numerous financial defaults, the South Korea government introduced the mandatory audit partner rotation policy in 2000. The introduction of MAPR is based on the entrenchment hypothesis suggesting that longer audit tenure creates a collusive relationship between audit firms and clients; thus, impairing independence. The Korean government believed that reducing the audit tenure of audit partners would reduce the potential for collusion between audit partners and clients. However, during the MAPR period, the Korean government discovered numerous instances of financial mismanagement that lead to high profile financial collapses. Because of public pressure, the Korean government became the first country to adopt MAFR since the passage of SOX in 2002. The reason Korea adopted MAFR is because it was expected that if firms replaced audit firms under the MAFR

rule as opposed to their audit partner under MAPR, audit quality would improve more significantly under MAFR based on the belief that a "fresh look" would have the highest possible probability of reducing the potential for collusion between auditors and clients.

Whilst the South Korean government based its decision to implement MAFR on the entrenchment hypothesis, a change in the auditor-client relationship has the potential to have a negative effect on conditional accounting conservatism in the initial stages of audit engagements. Newly appointed auditors are likely to lack client specific knowledge, in particular about their client's internal control system and operational processes. Hence, new auditors that lack client knowledge are more likely to rely on managers' information in preparation of financial reporting which creates an environment for opportunistic behavior and aggressive reporting; thus reducing accounting conservatism levels. Previous studies show that audit rotation has led to a deterioration of audit quality based on earnings management proxies (Chen et al., 2008; Heninger, 2001; Johnson et al., 2002; Richardson et al., 2002; Piot and Janin, 2007; Chi and Huang 2005; Chi et al., 2009; Lennox et al., 2014; Kwon et al., 2015). Further, there is evidence that firms are more likely to have a propensity to issue a going concern audit opinion after auditor rotation (Carey and Simnett 2006). These studies suggest that the loss of cumulative audit knowledge has a negative influence on audit quality, and the loss of this knowledge does not justify mandatory firm rotation. Given that conservatism and earnings management are proxies for accounting quality based on upside opportunity and downside risk, we would expect to find that levels of conditional conservatism deteriorate in a similar manner to earnings management after the adoption of MAFR. Based on the above, we develop the following hypothesis:

Hypothesis 1: A firm's level of conditional conservatism is likely to decrease after mandatory audit firm rotation.

<Insert Figure 1 here>

Next, we directly test the auditor expertise hypothesis by testing whether increased audit tenure increases/decreases audit quality. MAFR was established based on the entrenchment hypothesis. The entrenchment hypothesis suggests that prolonged audit-client relationships are more likely to increase the potential for collusion between auditor and clients and encourage auditors to impair their independence. Therefore, directly testing the influence of MAFR on firms that have experienced different audit length provides valuable insight into

the appropriateness of MAFR. There are two possible scenarios. Firstly, firms with longer audit client partner relations may develop a relationship where the auditor becomes dependent on their client and become less likely to scrutinize audit quality. As a result, the implementation of MAFR on firms with longer audit client relationships would demonstrate improvements in their levels of conservatism after the adoption of MAFR. Second, longer client relationship exists because of a mutually beneficial relationship between client and auditors, more specifically, the client retains the auditor for a longer tenure because the auditor has a developed cumulative accounting knowledge for a specific client, as a result, the MAFR rule would have an incrementally more negative effect on conservatism for firms with longer audit tenures.

MAFR was established by the Korean government based on the assumption that a ‘fresh look’ has the potential to improve audit quality. However, the majority of recent studies have reported that audit tenure positively influences audit quality, supporting the auditor expertise hypothesis. Furthermore, using earnings management as a proxy for accounting quality, Kwon et al., (2014) find evidence that MAFR in Korea has been detrimental to cumulative auditor knowledge. Based on these discussions and the recent findings above, we develop the following hypothesis:

Hypothesis 2: The incremental effect of audit tenure on conditional conservatism decreases after MAFR.

III. Research Design

3.1 Sample Selection

The sample consists of listed Korean firms registered on the Korean stock exchange. Financial and non-financial data is collected from the KIS-VALUE, TS-2000, and DataGuide database systems. In South Korea, MAPR was adopted on a voluntary firm-by-firm basis from 2000 and is still ongoing. Because firms adopted MAFR on a firm-by-firm basis, we hand collect data and allocate firms to samples accordingly. The sample is divided into three different sub-samples. Our group of interest, MAFR, constitutes firms that mandatorily rotated their auditors from 2006-2009. The first benchmark group of interest, MAPR, consists of the same MAFR firms that were only subject to mandatory “audit partner” rotation during 2000-2005. Our second benchmark group consists of firms that have rotated their audit firm on a voluntary basis in MAFR periods. We label these firms VOLR.

<Insert Figure 2 here>

The MAFR and MAPR samples are the same firms in periods before and after policy implementation. Figure 2 shows our sample decomposition. MAPR are two 3 fixed year periods dependent on when an auditor was hired by a firm. The MAFR period varies from 2006-2009 dependent on the period of MAPR adoption. If a firm adopted MAPR in 2000.01, the second MAPR period would begin in 2003.01 and end in 2005.12. Thus, MAFR would last 4 years from 2006-2009. However, if a firm adopted MAPR in 2003, the firm would experience MAFR in 2009 only. We believe this careful decomposition of observations into target and benchmark samples is necessary. Simply comparing two samples before and after 2006 is likely to lead to bias results. We believe this approach adds robustness because we can compare the same firms in different periods dependent on audit firm rotation policy. In our analysis MAPR are practiced in two different 3 year periods. For brevity we disentangle the effect of both MAPR periods in our additional analysis section. For completeness, we mention that the levels of conservatism for both 3 year MAPR periods are indifferent.

<Insert table 1 here>

Panel A, Table 1 illustrates the sample selection process. After excluding financial firms, 664 firms were subject to some form of auditor rotation from 2000 to 2010. We exclude 154 firms with no financial data. We exclude an additional 20 foreign based firms because their audit infrastructure and corporate governance structures are different to Korean firms. Finally, we exclude firms that adopted MAFR in 2010. We exclude these firms because only 19 firms adopted the policy in this period. Furthermore, auditors were less likely to impair their independence knowing that new policies would be implemented with the introduction of IFRS in 2010. Overall, 334 firms adopt the MAPR policy, and then subsequently adopt MAFR. 144 firms are voluntary adopters of the audit firm rotation policy, the VOLR sample. Panel B shows MAFR firm adoption by year. The table shows that 71, 58, 100, 105 firms mandatorily rotated their auditors in 2006, 2007, 2008, and 2009 respectively. The initial period a firm adopted MAFR would depend on the period a firm adopted MAPR. Early adopters of MAPR became early adopters of MAFR by default. Panel C illustrates firms by industry. Overall, the results suggest that the sample is normally distributed. The highest number of rotations occurred in the metal industry, 43 rotations, followed by the electrical machinery with 36. We collect observations from 16 different industries.

3.2 Research Design

We use the reverse regression model suggested in Basu (1997) and the accrual-based model suggested by Ball and Shivakumar (2005) to examine whether the adoption of the mandatory audit firm rotation policy is associated with an incremental increase in accounting conservatism. Accounting conservatism requires the asymmetric verification of earnings compared to losses (Basu et al, 2001). Thus, firms with more conservative reporting practices can report more reliable earnings for the current period and are more likely to report higher earnings for the future. Earnings quality refers to the ability of reported earnings to predict a company's future earnings. Hence, higher earnings quality is significantly associated with audit quality. Auditors would prefer to see conservative reporting than aggressive reporting to reduce potential audit risk. Thus, firms with conservative accounting practices can be considered as demonstrating higher audit quality because these conservative reporting practices can significantly restrict managers' opportunistic behavior. Given that conditional conservatism reduces downside risk, we believe conditional conservatism is a felicitous proxy for audit quality in the mandatory rotation setting (Basu et al., 2001; Chung et al., 2003; Francis and Wang, 2008). In the Ball and Shivakumar (2005) model, TACC are a firm's total accruals divided by prior year total assets. CFO is cash flow from operation divided prior year total assets. DCFO is a dummy variable that is one if CFO is negative, 0 otherwise. The interaction term DCFO*CFO is represented by BS_CC, a proxy to capture conditional conservatism. In the Basu (1997) model, our variable of interest, Basu_CC represents the conservatism interaction term DRET*CFO. EAR is net income deflated by previous year total assets, RET is 12 months cumulative stock return, D_RET is a dummy variable that is 1 if cumulative stock returns are negative, 0 otherwise.

Our research design expands Ball and Shivakumar (2005) model and Basu (1997) models to incorporate the effects of mandatory audit firm rotation. We compare the accounting conservatism of the MAFR sample with the two benchmark groups, the MAPR and VOLR samples when appropriate. In testing our hypothesis, we estimate equations (1) and (2) to measure the contemporaneous relation between accruals (earnings) and operating cash flows (12 months cumulative stock return) for Ball and Shivakumar measure (Basu measure). Therefore, apart from the predicted interaction effect between the sign of operating cash flow (stock return) and the extent of accruals (earnings), we also include the additional interaction term with ROT, to capture the effect of contemporaneous audit firm rotation. ROT is a dummy variable that is one if MAFR, 0 otherwise (MAPR or VOLR). Thus, our variables

of interest in both models are CC*ROT. A statistically significant positive association would suggest that MAFR increased accounting conservatism consistent with the auditor entrenchment hypothesis. A negative relation would suggest that MAFR decreased conservatism practices consistent with the auditor expertise hypothesis. An insignificant relation suggests MAFR had no effect on accounting conservatism.

Ball and Shivakumar (2005) model

$$TACC_{i,t} = \alpha_0 + \alpha_1 DCFO_{i,t} + \alpha_2 CFO_{i,t} + \alpha_3 BS_CC + \alpha_4 ROT_{i,t} + \alpha_5 BS_CC * ROT + \varepsilon_{i,t} \quad (1)$$

Basu (1997) model

$$EAR_{i,t} = \beta_0 + \beta_1 DRET_{i,t} + \beta_2 RET_{i,t} + \beta_3 Basu_CC + \beta_4 ROT_{i,t} + \beta_5 Basu_CC * ROT + \varepsilon_{i,t} \quad (2)$$

Dependent Variables

TACC : Total accruals / prior year total assets

EAR : Earnings (Net Income) / Prior year total assets

Variable of Interest

*CC*ROT*

Independent Variables

DCFO: Dummy variable that is one if CFO is negative, 0 otherwise

CFO: Cash flow from operation / prior year total assets

ROT: Dummy variable that is one if MAFR, 0 otherwise

RET: Cumulative stock returns for 12 months

DRET: Dummy variable that is 1 if cumulative stock returns are negative (-), 0 otherwise

Next, we examine the influence of audit tenure on conservatism and the incremental effect of audit tenure on conditional conservatism increases/decreases after MAFR. In South Korea audit firms have experienced tenures ranging from 6 to 25 years for the MAFR sample and 6 years for the MAPR sample. To test the auditor expertise hypothesis, in equation (3) and (4), we add the dummy variable AUDPER, a dummy variable that is 1 if audit period is longer than 8 years, 0 otherwise. **There are three reasons that we use 8 years' tenure for the comparison. First, the average audit tenure before MAFR is 9.616 years and the cumulative ratio of 6, 7, 8 years occupy slightly over 50% (See Table 4). Thus, using an 8 year tenure facilitates our comparison for two similar sample sizes. Second, the 3 year auditor retention regime became in effect from 1997. Before the regime, firms were allowed to rotate their auditors frequently. After the rule was established firms were required to retain their auditors. This policy allows us to compare firms with longer audit tenures before the 'auditor retention rule' and shorter tenures when the 'auditor retention rule' was in effect. Finally, it is more likely that a firm with a tenure of longer than 8 years would retain their contract**

with an auditor if it were not for accounting policy changes, thus we can directly test auditor expertise/entrenchment hypothesis. In our additional analysis, we repeat the same analysis after replacing AUDPER with two additional dummy variables indicating tenure lengths greater than 9 and 10 years for robustness.

The interaction term CC*AUDPER compares the levels of conservatism of firms with tenures of longer than 8 years compared to those with less than a 8 year tenure. A positive CC*AUDPER suggests that as audit tenure increases, so does a firm's conservatism. The variable CC*ROT*AUDPER is an interaction variable that compares the conservatism levels of firms that adopted MAFR after audit tenure of 8+ years against the remainder of our sample. Based on the auditor entrenchment hypothesis, firms from this group are most likely to have developed a close relationship with auditors **and are more likely to impair their independence or develop a collusive relationship**. A negative coefficient would be consistent with the auditor expertise hypothesis. A positive coefficient would be consistent with the auditor entrenchment hypothesis, suggesting that a fresh look improves audit quality.

Ball and Shivakumar (2005) model

$$TACC_{i,t} = \alpha_0 + \alpha_1 DCFO_{i,t} + \alpha_2 CFO_{i,t} + \alpha_3 BS_CC + \alpha_4 ROT_{i,t} + \alpha_5 BS_CC * ROT + \alpha_6 AUDPER_{i,t} + \alpha_7 BS_CC * AUDPER_{i,t} + \alpha_8 BS_CC * ROT * AUDPER_{i,t} + \varepsilon_{i,t} \quad (3)$$

Basu (1997) model

$$EAR_{i,t} = \beta_0 + \beta_1 DRET_{i,t} + \beta_2 RET_{i,t} + \beta_3 Basu_CC + \beta_4 ROT_{i,t} + \beta_5 Basu_CC * ROT + \beta_6 AUDPER_{i,t} + \beta_7 Basu_CC * AUDPER_{i,t} + \beta_8 Basu_CC * ROT * AUDPER_{i,t} + \varepsilon_{i,t} \quad (4)$$

Dependent Variables

TACC : Total accruals / prior year total assets

EAR : Earnings (Net Income) / Prior year total assets

Variables of Interest

*CC*ROT*

*CC*ROT*AUDPER*

Independent Variables

DCFO: Dummy variable that is one if CFO is negative, 0 otherwise

CFO: Cash flow from operation / prior year total assets

ROT: Dummy variable that is one if MAPR, 0 otherwise

RET: Cumulative stock returns for 12 months

DRET: Dummy variable that is 1 if cumulative stock returns are negative (-), 0 otherwise

AUDPER: Dummy variable that is 1 if audit period is longer than 8years, 0 otherwise

Finally, in equations (5) and (6) we test whether audit switch types affect audit quality after MAFR. To examine whether audit switch types influence conservatism, we add a dummy variable, SWITCH that takes the value one if switch type is from Non-Big4 to Big4. The remainder of the sample are the remaining audit switch types, Big4 to Big4, Big4 to Non-Big4, and Non-Big4; these switch types take a value of 0. Given the extensive literature suggesting the superior audit quality of Big4 auditors, we expect the interaction term CC*ROT*SWITCH to be positive. The results would suggest that firms that were audited by a Big4 audit firm after MAFR demonstrate an incremental increase in accounting conservatism compared to the previous period (MAPR) when the firm was under the supervision of a Non-Big4 auditor.

Ball and Shivakumar (2005) model

$$TACC_{i,t} = \alpha_0 + \alpha_1 DCF_{i,t} + \alpha_2 CFO_{i,t} + \alpha_3 DCF_{i,t} * CFO_{i,t} + \alpha_4 ROT_{i,t} + \alpha_5 BS_CC * ROT_{i,t} + \alpha_6 SWITCH_{i,t} + \alpha_7 BS_CC * SWITCH_{i,t} + \alpha_8 BS_CC * ROT_{i,t} * SWITCH_{i,t} + \varepsilon_{i,t} \quad (5)$$

Basu (1997) model

$$EAR_{i,t} = \beta_0 + \beta_1 DRET_{i,t} + \beta_2 RET_{i,t} + \beta_3 Basu_CC + \beta_4 ROT_{i,t} + \beta_5 Basu_CC * ROT_{i,t} + \beta_6 SWITCH_{i,t} + \beta_7 Basu_CC * SWITCH_{i,t} + \beta_8 Basu_CC * ROT_{i,t} * SWITCH_{i,t} + \varepsilon_{i,t} \quad (6)$$

Dependent Variables

TACC : Total accruals / prior year total assets

EAR : Earnings (Net Income) / Prior year total assets

Variable of Interest

*CC*ROTATION*

Independent Variables

DCF: Dummy variable that is one if CFO is negative, 0 otherwise

CFO: Cash flow from operation / prior year total assets

ROT: Dummy variable that is one if MAFR, 0 otherwise

RET: Cumulative stock returns for 12 months

DRET: Dummy variable that is 1 if cumulative stock returns are negative (-), 0 otherwise

SWITCH: Dummy variable with a value of 1 if rotation type is from Non to Big4, 0 otherwise

IV. Empirical Results

4.1 Univariate Analysis

For mean(median) difference test purposes, we calculate C scores and G scores to proxy for firm-level conditional conservatism (based on the Basu 1997); C and G scores are calculated by adding firm-specific characteristics (firm size, market to book ratio, leverage) each year to our regression (See Khan and Watts, 2009). C scores represent conditional conservatism with regard to bad news recognition. G scores represent conservatism with regard to good news recognition. Table 2, Panel A presents descriptive statistics and mean (median) difference tests comparing the levels of conservatism of MAFR and MAPR samples. The results of interest are included in column Diff MAFR-MAPR. We find lower conservatism levels for MAFR firms compared to MAPR using C score. The results suggest that firms that adopted MAFR reduced their levels of accounting conservatism. We find insignificant results using the G score. For brevity, we only show MAFR vs MAPR results, but the C score is also found to be lower for MAFR compared to VLOR. Panel B illustrates Pearson correlations. We find a negative relation between earnings and the dummy variable Basu_CC*ROT. This evidence is consistent with firms adopting MAFR having lower conservatism compared to the remainder of the sample. The negative relation between BS_CC*ROT and accruals have identical implications. Overall, the results suggest that accounting quality declines after the adoption of MAFR.

<Insert table 2 here>

4.2 Multivariate Analysis

In Table 3, we compare the conditional conservatism of the MAFR sample with our two benchmark samples MAPR and VOLR using a dummy variable approach where ROT takes the value of 1 when a firm adopts MAFR. 0 represents the MAPR sample in the MAFR vs MAPR test. 0 represents the VOLR sample in the MAFR vs VOLR test. Our primary variable of interest for the Ball and Shivakumar measure, BS_CC*ROT is negatively associated with conservative accounting for MAFR vs MAPR test (-0.535), statistically significant at the 1% level. Our results suggest that the mandatory audit firm rotation policy decreased accounting conservatism, hence audit quality. Moreover, we find similar results for the MAFR vs VOLR test (-0.613 at 5% level). The results suggest that the VOLR sample is more likely to

ameliorate transitory changes in operating cash flow with accruals compared to the MAFR sample. The variable of interest in the Basu (1997) model measure is Basu_CC*ROT. Basu_CC*ROT has a negative sign for the MAFR-MAPR comparison (-0.075), statistically significant at the 1% level. When we compare MAFR with VOLR, we find that VOLR firms practice statistically significantly higher levels of conservatism (5% level of significance). Therefore, overall, we find evidence that conditional conservatism has decreased after mandatory audit firm rotation, allowing us to accept our first hypothesis. Furthermore, the practice of conservatism of firms subjected to MAFR is lower than that of firms that voluntarily rotated their auditors. These results suggest that the objective of the Korean government to improve audit quality under the auditor entrenchment hypothesis was not well specified. Our results are consistent with the auditor expertise hypothesis.

<Insert table 3 here>

Next, we examine the influence of audit tenure on conditional conservatism. We provide details from 1982 because the free auditor engagement rule that allowed firms to independently select their auditor became effective from 1982. Before 1982, under the auditor designation rule, a firm was not independently permitted to select an auditor. Panel A gives details about the influence of consecutive audit tenure on our sample. In Table 4, Panel A, we show that the majority of firms regularly change auditors from 1982 to 2010. Firms that retain an audit firm for 8 years or less make up 54.19% of our sample. After 12 years of audit tenure, almost 83% of firms rotate their auditors. Panel B tests the auditor expertise vs auditor entrenchment hypothesis. AUDPER is a dummy variable that takes the value of 1 if the audit period is longer than 8 years, 0 otherwise. The interaction terms BS_CC*AUDPER and Basu_CC*AUDPER compare the level of conservatism for firms with audit tenures of more than 8 years with firms with tenures of 8 or less. We find firms with audit tenures of more than 8 years are statistically significantly more conservative than firms with shorter tenures at the 5% (BS_CC coefficient 0.54) and 1% (Basu_CC 0.086) levels. Next, we compare the effect of MAFR on audit firms that retain their auditors for more than 8 years with the remainder of our sample. The variables of interest are BS_CC*ROT*AUDPER and Basu_CC*ROT*AUDPER. For both models we find a negative relation, statistically significant at the 10% level. The results suggest that firms with audit tenures of 8 year or longer that adopt MAFR have lower levels of conservatism relative to the remainder of our sample. Overall, the results suggest conservatism has incrementally decreased for MAFR sample firms with longer previous audit tenure, allowing us to accept our second hypothesis. The results

suggest that the loss of accumulated knowledge can have a negative influence on conservatism. This evidence is consistent with the auditor expertise hypothesis. We do not compare MAFR with VOLR because the VOLR sample are firms that frequently rotate their auditors (every 3 year); hence are not subject to mandatory audit firm rotation.

<Insert Table 4 here>

Next, we examine the effect of 'switch' type on conservatism. To examine the influence of audit firm switch type on conservatism, we include the dummy variable SWITCH, a variable that takes the value of 1 if a firm switches from Non-Big4 to a Big4 audit firm after MAFR. Firms that switch from Big4 to Non-Big4, Non-Big4 to Big4 and Big4 to Non-Big4 take the value of 0. Table 5, Panel A shows the frequency of audit switch type. The most frequent switch type is Big4 to Big4 (43.31%). Our group of interest, firms that switch from Non-Big4 to Big4 auditors make up 25.45% of our sample. Firms that switch to Non-Big4 comprise of 31.14%. Our variable of interest CC*ROT*SWITH is positive for the MAFR VS MAPR sample. We find a 10% significance level for the Ball and Shivakumar (2005) model and a 5% level of the Basu model. The results are consistent with the auditor expertise hypothesis. Firms audited by Non-Big4 auditors that switch to Big4 auditors increase their levels of accounting conservatism. The results are consistent with previous literature and knowledge-superiority of Big4 auditors. We find that the conservatism level for MAFR sample is indifferent to firms that voluntary rotated from Non-Big4 to Big4 auditors. These results suggest that whilst MAFR has decreased audit quality on the whole because of a decline in firm specific knowledge, firms that switch from Non-Big4 to Big4 auditors demonstrate higher levels of conservatism because Big4 auditors are more likely to demand conservative accounting practices.

<Insert Table 5 here>

V. Additional Analysis

5.1 Mandatory audit partner sample division

To identify the effect of different incentives on audit quality, we divide MAPR into two 3 year sub-samples to capture the incentives of auditors in different periods. In period MAPR1 a firm is more likely to impair independence because the accounting firm can retain the client

under a different partner. In period MAPR2, auditors are less likely to impair their independence because auditors would be aware of the introduction of MAFR in the next period. Therefore, based on the entrenchment hypotheses, it is possible to predict lower accounting conservatism levels for the MAPR1 sample compared to MAPR2. On the other hand, based on the expertise hypotheses, audit partner rotation may decrease audit quality due to the loss of client specific knowledge. Table 6 shows that audit quality measured by conditional accounting conservatism increases from the first 3 year period, MAPR1 to MAPR2 the second 3 year period. The results suggest that longer tenures and the potential to transfer client specific knowledge improve client specific knowledge (expertise) and increases conservatism. We find no evidence of audit partners impairing their independence.

5.2 Tenure robustness tests

We conduct sensitivity analysis to test 'longer' audit tenure effect on conservatism for the Ball and Shivakumar and Basu models, (3) and (4). Specifically, the AUDPER variable was replaced by two additional dummy variables indicating tenure lengths greater than 9 and 10 years. Untabulated results are similar with earlier results, using both conservatism measures. Cons*AUDPER shows a significantly positive sign, suggesting that audit quality improves with longer audit tenure, consistent with the auditor expertise hypotheses. On the other hand, Cons*ROT*AUDPER consistently show negative signs, suggesting that conservatism has incrementally decreased for MAFR firms with longer previous audit tenure due to the loss of accumulated knowledge.

VI. Conclusions

The South Korean government implemented the mandatory audit partner policy in 2000 to increase public confidence in accounting based on the auditor entrenchment hypothesis. However, due to concurrent high profile bankruptcies when MAPR was in effect, the mandatory audit firm rotation policy was introduced in 2006. MAFR was mandated under the premise that increased safeguards against familiarity threats would reduce the possibility of collusion, hence increase audit quality. We find that after the adoption of MAFR, the same firm is more likely to reduce its levels of conservatism compared to previous periods when MAPR was mandated. Furthermore, we find that the levels of conservatism of firms that voluntarily rotate their audit firms is higher than firms that were mandated to rotate their audit firm under MAFR. The results suggest that the MAFR rule decreased

conditional conservatism in South Korea. Conditional conservatism is the recognition of bad news in a timelier manner compared to good news or ‘worst case scenario reporting’. Our study suggests that the Korean government’s policy to increase audit quality with the implementation of MAFR was not successful overall.

We find evidence consistent with the auditor expertise hypothesis. We find that longer audit tenure increases a firm’s conservatism practices. Moreover, we find that firms with long term audit-partner client relationships that are mandated to rotate their auditors practice lower conservatism compared to all other firms suggesting a reduction in firm specific knowledge decreases conservatism. However, we find that auditor switch type has the potential to influence the levels of a firm’s conservatism. Firms that rotate from Non-Big4 to Big4 auditors increase their conservatism practices compared to other switch types. The results suggest that whilst MAFR leads to the loss of client specific knowledge, the knowledge-superiority of Big4 auditors can have a mediating influence on audit quality. Therefore, whilst we find, MAFR is not effective, we find some positive effects of MAFR on audit quality based on audit switch type. A limitation of this paper is that the legal and political systems of South Korea are different to the E.U. and the U.S.A., economies where mandatory audit rotation are or being considered as policies to improve audit quality. However, given potential legislative and geographical differences, we find overwhelming evidence against the auditor entrenchment hypothesis based on South Korea’s unique experiment.

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