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Auditor tenure and rotation

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Importance of the topic

There has been a long-standing debate as to the relative merits of mandatory auditor rotation. In the United States (US), Section 203 of the Sarbanes-Oxley Act (2002) (SOX) requires rotation of the lead engagement partner and the concurring review partner at least once every five years. Section 207 also requires a study on the potential effects of mandatory audit firm rotation. After conducting the study, the General Accounting Office (GAO, 2003: 2) concluded that:

mandatory audit firm rotation may not be the most efficient way to enhance auditor independence and audit quality, considering the costs of changing the auditor of record and the loss of auditor knowledge that is not carried forward to the new auditor.

However, the GAO (2003: 2) also stated that

it will take at least several years for the SEC [Securities Exchange Commission] and the PCAOB [Public Company Accounting Oversight Board] to gain sufficient experience with the effectiveness of the act in order to adequately evaluate whether further enhancements or revisions, including mandatory audit firm rotation, may be needed to further protect the public interest and to restore investor confidence.

The debate has gathered pace recently. In late 2010, the European Commission (EC) issued a Green Paper which stated (2010: 11):

Situations where a company has appointed the same audit firm for decades seem incompatible with desirable standards of independence. Even when 'key audit partners' are regularly rotated as currently mandated by the Directive, the threat of familiarity persists. In this context, the mandatory rotation of audit firms – not just of audit partners – should be considered. The Commission acknowledges arguments relating to a loss of knowledge as a result of rotation. It would nevertheless like to examine the pros and cons of such rotation, especially with a view to instilling and maintaining objectivity and dynamism in the audit

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market. To prevent partners from changing firms to “take along” certain clients with them, rotation rules, if adopted, should ensure that not only firms, but partners are also rotated.

In August 2011, the PCAOB issued a call for public comments on the desirability of mandatory audit firm rotation. It is therefore an opportune time to consider the contribution that the academic literature can make to this debate.

The next section, Experiences of different countries, reviews the rules on mandatory audit firm rotation and mandatory partner rotation across different countries. I then outline the arguments for and against mandatory rotation before briefly reviewing the academic evidence. Finally, I conclude with a personal perspective on how academic research can be made more useful as an input to policy making.

Experiences of different countries

The rules on audit firm rotation and audit partner rotation are summarized in Table 8.1. Mandatory audit firm rotation is required for all types of publicly traded companies in the following countries: Bangladesh, Bolivia, Bosnia Herzegovina, Costa Rica, Indonesia, Italy, Mongolia, Oman, Paraguay, Serbia, Tunisia, and Uzbekistan. In most countries that require audit firm rotation, the maximum permissible length of audit firm tenure is set at around five years. Audit firm rotation is not required in most developed economies, including Australia, Canada, most of Europe, and the US. Among the countries that do not impose mandatory audit firm rotation, most require rotation of the audit partners.

Table 8.1 finds that many countries require audit firm rotation for specific types of listed entity: typically banks, insurance companies, and government entities. Presumably, audit quality is deemed to be particularly important for financial institutions and government companies which is why these types of entities are singled out for special treatment. However, Brazil and Saudi Arabia are two exceptions, as they require audit firm rotation for all listed entities *except* banks.

Interestingly, Table 8.1 finds that several countries introduced some form of mandatory audit firm rotation policy, only to withdraw it later. For example, in Austria, mandatory audit firm rotation was introduced in 2001 but abandoned in 2004. Canada dropped its audit firm rotation requirement for banks in 1991. Similarly, Singapore has suspended its policy of mandatory audit firm rotation for local banks in 2008, having earlier introduced the policy in 2002. Spain introduced mandatory audit firm rotation every nine years starting in 1988, but this policy was abandoned seven years later, in 1995.

These policy reversals seem to indicate some uncertainty by policy makers as to the desirability of mandatory rotation. Moreover, the reasons put forward for the policy reversals seem unpersuasive. For example, Singapore officials stated that the mandatory audit firm rotation requirement for local banks was introduced in 2002 in order to:

- (1) safeguard against public accounting firms having an excessive focus on maintaining long-term commercial relationships with the banks they audit
- (2) maintain the professionalism of audit firms – where with long-term relationships, audit firms run the risk of compromising their objectivity by identifying too closely with the banks’ practices and cultures, and
- (3) bring a fresh perspective to the audit process.

(GAO, 2003: 13)

Table 8.1 Rules on mandatory audit firm rotation and mandatory audit partner rotation for listed entities

Country	Mandatory audit firm rotation?	Mandatory audit partner rotation?
Albania	Partial	n.a.
Argentina	No	Yes
Australia	No	Yes
Austria	No	No
Bahrain	No	Yes
Bangladesh	Yes	n.a.
Belarus	Partial	n.a.
Belgium	No	Yes
Bolivia	Yes	No
Bosnia Herzegovina	Yes	No
Brazil	Partial	No
Canada	No	Yes
Chile	No	n.a.
China	Partial	Yes
Costa Rica	Yes	No
Croatia	Partial	No
Cyprus	No	Yes
Czech Republic	No	Yes
Denmark	No	Yes
Ecuador	Partial	No
El Salvador	No	Partial

Every two years for insurance companies and every three years for banks.
 A policy of rotation every six years was enacted in 2001 and abandoned in 2004.
 Every three years.
 Every three years for banks.
 Every six years (except three years for insurance companies and pension funds).
 Every five years (but rotation can be postponed for two years if a new engagement partner is appointed).
 Every five years (except banks).
 A policy of rotation every two years for banks was abandoned in 1991.
 Every five years for government entities meeting certain criteria.
 Required in 2005, repealed in 2006, re-implemented in 2010.
 Every seven years for banks and every four years for insurance companies.
 Adopted between 1992 and 1995, then abandoned.
 Every five years for banks and every six years for insurance companies.
 n.a.
 Every five years.
 Every five years.
 Every five years for financial institutions.
 n.a.
 n.a.
 Every six years.
 No
 No
 Yes
 n.a.
 Yes
 No
 No
 No
 Yes
 n.a.
 Yes
 No
 No
 No
 Yes
 No
 Yes
 Yes
 Yes
 No
 Partial
 Every five years for banks and insurance companies.

Table 8.1 (continued)

Country	Mandatory audit firm rotation?	Mandatory audit partner rotation?
Estonia	No	Partial
Finland	No	Yes
France	No	Yes
Germany	No	Yes
Ghana	No	No
Greece	No	Yes
Honduras	No	Yes
Hong Kong	No	Yes
Hungary	No	Yes
Iceland	Partial	No
India	Partial	Partial
Indonesia	Yes	n.a.
Israel	Partial	No
Italy	Yes	No
Japan	No	n.a.
Latvia	No	Yes
Lithuania	No	Yes
Luxembourg	No	Yes
Macedonia	Partial	n.a.
Malaysia	No	n.a.
Malta	No	Yes
Mexico	No	Yes
Mongolia	Yes	n.a.
Montenegro	No	Yes
Nepal	No	No

Every five years for banks and investment companies.
 Every seven years.
 Every six years.
 A maximum of six audits can be performed during a ten year period.
 No
 Every seven years.
 Every five years.
 Every five years.
 Every five years.
 Every four years for banks, insurance companies, and government entities.
 n.a.
 No
 No
 n.a.
 Yes
 Every five or seven years.
 Every five years.
 Every seven years.
 n.a.
 n.a.
 Yes
 Every seven years.
 Every five years.
 n.a.
 Yes
 Every seven years.

Mandatory audit partner rotation?

Mandatory audit firm rotation?

Partial
 Yes
 Yes
 Yes
 No
 Yes
 Yes
 Yes
 Yes
 No
 Partial
 Every five years for financial institutions and insurance companies.
 Every four years for banks, insurance companies, and government entities.
 Every six years.
 Every three years for government entities, but not strictly enforced.
 Every nine years.
 Required for banks in 1998, 1999, and 2000, but repealed in 2002.
 Every five years for banks and insurance companies.
 No
 No
 Partial
 No
 No
 No
 No
 No
 Yes
 No
 No

Table 8.1 (continued)

Country	Mandatory audit firm rotation?	Mandatory audit partner rotation?
Netherlands	No	Yes
New Zealand	No	Yes
Nicaragua	No	Partial
Nigeria	Partial	n.a.
Norway	No	Yes
Oman	Yes	n.a.
Pakistan	Partial	n.a.
Panama	No	Yes
Paraguay	Yes	n.a.
Peru	Partial	n.a.
Poland	Partial	Yes
Portugal	No	Yes
Qatar	Partial	n.a.
Romania	No	Yes
Russia	No	Yes
Saudi Arabia	Partial	Partial
Serbia	Yes	n.a.
Singapore	Partial	Yes
Slovakia	No	n.a.
Slovenia	Partial	Yes

Every five years.
 Every seven years.
 Every three years for banks.
 n.a.
 Every seven years.
 n.a.
 n.a.
 Every three years.
 n.a.
 n.a.
 Yes
 Every five years.
 Every seven years.
 n.a.
 Yes
 Every seven years.
 Every seven years.
 Partial
 Upon request from the central bank, banks are allowed to request partner rotation instead of audit firm rotation.
 n.a.
 Yes
 Every five years.
 n.a.
 Yes
 Every seven years.
 Every five years for banks and every five years for insurance companies.
 Every four years.
 Every five years for financial institutions and insurance companies. A policy of rotation every five years for other listed entities was dropped in 2002.
 Every three years.
 Every two years for government entities.
 Every five years for insurance companies.
 Every eight to nine years is recommended on a 'comply or explain' basis.
 Every five years for banks.
 Every five years except for banks.
 Every five years for banks. For other companies, rotation is required every ten years instead of every five years when combined with partner rotation.
 Every five years for local banks ('temporarily' suspended in 2008 but the suspension had not been lifted as of 2012).
 Mandatory rotation for banks was dropped in 2000.
 Every five years for insurance and investment management companies.

Table 8.1 (continued)

Country	Mandatory audit firm rotation?	Mandatory audit partner rotation?
South Africa	No	No
South Korea	No	Rotation every seven years was enacted in 2003, became effective in 2006, but dropped in 2009.
Spain	No	Rotation every nine years was enacted in 1988 and dropped in 1995.
Sri Lanka	No	
Sweden	No	Yes
Taiwan	No	Yes
Tajikistan	No	Yes
Thailand	No	No
Tunisia	Yes	Yes
Turkey	No	n.a.
Ukraine	Partial	Yes
Uzbekistan	Yes	Yes
United Kingdom	No	No
United States	No	Yes
Venezuela	Partial	Yes

The following information sources were used to compile this table: Cameron *et al.* (2005); GAO (2003); Siregar *et al.* (2012); Ewelt-Knauer *et al.* (2012); <http://pcobus.org/Rules/Rulemaking/Docket037/163>; Deloitte, Touche LLP.pdf. These information sources revealed inconsistent information for a handful of countries and those countries are not included in this table. I am also grateful to the following academics who told me about the applicable rules in their countries: Carlos Alves (Portugal), Costas Caramanis (Greece), John Christian Langli (Norway), David Hay (New Zealand), Lasse Niemi (Finland), Galina Preobrazhenskaya (Russia), Stefan Sundgren (Sweden), Steven Taylor (Australia), Frank Thinggaard (Denmark), Marleen Willekens (Belgium), Xi Wu (China). Overall, the information presented is based on a best-effort research initiative and I provide no guarantee as to its accuracy.

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Singapore's suspension of mandatory rotation in 2008 occurred because it was felt that auditor changes would be excessively costly during the global financial crisis. However, it was not explained why the original justification for the policy – i.e., maintaining high audit quality – had become less important during the crisis. It is somewhat strange that the financial crisis was cited as a reason for suspending the policy given that most audit failures are revealed when companies fail. Moreover, as of 2012, the 'temporary' suspension of 2008 had not yet been lifted, casting further doubt as to whether the financial crisis was the real reason for dropping mandatory rotation.

In Canada, the policy of mandatory audit firm rotation for banks was abandoned in 1991. Two reasons were given: (1) it was felt that the costs of mandatory rotation exceeded the benefits; and (2) Canada was largely alone among the developed countries in imposing mandatory audit firm rotation (GAO, 2003). With respect to the first argument, this article will argue that there is little persuasive evidence as to whether mandatory rotation is beneficial or harmful. As to the second argument, the decision to follow other developed countries suggests that policy makers were unsure in their own minds as to whether the costs of mandatory rotation really did exceed the benefits.

In Spain, the policy of mandatory audit firm rotation was dropped in 1995. According to a director of the Comision Nacional del Mercasdo de Valores (CNMV) – the agency in charge of supervising and inspecting the Spanish stock markets – the policy was dropped because:

The main objective of increased competition among audit firms had been achieved and because of listed companies' increased training costs incurred with a complete new team of auditors from a new public accounting firm.

(GAO, 2003: 84)

No mention was made as to the potential consequences for audit quality and it is unknown whether audit quality considerations influenced the decision to drop mandatory rotation in Spain.

In summary, there is a wide divergence of policies around the globe. Some countries have mandatory audit firm rotation alone, some have both mandatory audit firm rotation and mandatory audit partner rotation, while other countries have mandatory audit partner rotation alone. Further, some countries have introduced mandatory audit firm rotation before abandoning it later; in Spain the policy was dropped without mandatory rotation ever having taken effect. These policy reversals suggest a high degree of uncertainty as to whether mandatory rotation is desirable. This motivates the next part of my article where I discuss the arguments for and against mandatory rotation and the evidence to date.

Arguments in favor of mandatory rotation

A reduced threat of economic dependence

By reducing the expected length of auditor–client tenure, it is argued that mandatory rotation can strengthen an auditor's economic incentives to remain independent of the client. For example, suppose that – in the absence of mandatory rotation – the expected length of future tenure is ten years. If the auditor expects to earn a profit of \$10 in each year, the auditor's expected profits are \$100 (= 10 × 10). If instead, the audit firm has to be rotated in, say, five years' time, the auditor's expected profits from the client are halved. This means that the auditor has less incentive to curry favor with the client's management in order to retain the business.

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A “fresh eyes” benefit

Proponents of mandatory rotation argue that a change of auditor can improve audit quality by bringing a fresh perspective to the audit. The American Institute of Certified Public Accountants (AICPA) introduced mandatory partner rotation “for the specific purpose of periodically bringing a fresh perspective to each audit” (AICPA 1992: 4). A fresh perspective can reveal problems that were not apparent to the previous partner. Rotation of either the audit firm or the audit partner can yield a fresh eyes effect but the effect is likely to be bigger when the entire audit team is rotated rather than just the partner.

Avoidance of close personal relationships and misplaced trust

When an auditor audits the same client for many years, the auditor may become overly trusting of the management or complacent in conducting the audit. While mandatory partner rotation may be sufficient to prevent such problems at the partner level, much of the audit work is carried out by juniors, seniors, and audit managers. Thus, mandatory audit firm rotation may be necessary to prevent close personal relationships and misplaced trust at all levels of the audit team.

Greater competition

Mandatory audit firm rotation would increase the frequency of auditor–client terminations and therefore lead to more situations in which audit firms submit bids for new clients. The EC is keen to increase the intensity of competition in the audit market and believes that mandatory audit firm rotation is an important means to achieve this objective. However, it is unclear whether a more dynamic and competitive audit market is conducive to high audit quality. An increase in the frequency of tendering could lead to cut-throat competition, with audit firms offering lower audit fees in an attempt to increase their market shares. Numan and Willekens (2011) find that greater competition results in downward pressure on audit fees and may motivate audit firms to reduce the extent of testing. Therefore, it is not obvious that an increase in competition would in fact result in higher quality audits as the EC has claimed.

Arguments against mandatory rotation

Diminished incentives to acquire client-specific knowledge

Auditing standards require an auditor to have a detailed understanding of the auditee. Some of the knowledge gained from auditing one client can be transferred to the audits of similar clients. However, no two companies are exactly alike. Much of the time and effort that an auditor invests in getting to know a client’s business cannot easily be transferred to a different engagement. Mandatory rotation reduces the auditor’s expected period of incumbency and therefore reduces the time horizon over which an auditor can recoup the benefits from acquiring client-specific knowledge. Therefore, mandatory rotation can reduce the auditor’s incentive to gain client-specific knowledge.

A loss of knowledge at the time of rotation

Because of learning-by-doing, a newly appointed auditor starts off with less client-specific knowledge and is therefore less able to determine whether the company’s accounting and

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reporting choices are proper. In contrast, an auditor who has audited the same company for an extended period is better placed to judge the appropriateness of the company's accounting choices. By instigating a change of auditor, mandatory rotation increases the risk that the new auditor will know less about the client than the former auditor.

Costly auditor switching

A chief argument against mandatory rotation is that it is costly for companies to change auditor. This is one reason that voluntary auditor changes occur infrequently. Although the EC appears to be in favor of mandatory audit firm rotation, it acknowledges that many companies would find it costly to change auditors on a frequent basis.

A "lame duck" effect during the final year of tenure prior to mandatory rotation

Mandatory rotation may have perverse effects on audit quality as the scheduled date for rotation approaches. Because mandatory rotation makes the termination date completely predictable, the audit team knows that they will cease to audit the company beyond the final year of tenure. This may mean that the audit team has less incentive to exert effort during the final year. Moreover, mandatory rotation could result in audit firms re-allocating their most knowledgeable and experienced staff as the end of tenure approaches in order to attract or retain other clients where the expected period of incumbency is longer. On the other hand, there may be a beneficial final year effect if the departing auditor works harder during his/her final year of tenure because s/he knows that his/her work will be scrutinized by a new incoming auditor. Therefore, it is unclear *ex ante* whether audit quality will be lower or higher in the auditor's final year prior to mandatory rotation.

The evidence

As there are arguments both for and against mandatory rotation, it is an open empirical question as to whether it is in fact desirable. This section reviews the major findings from four areas of the literature:

- audit firm tenure
- audit partner tenure
- mandatory audit firm rotation
- mandatory audit partner rotation.

Of these, the first two categories account for the vast majority of published articles. I shall provide relatively more discussion of studies in categories 3 and 4, as these are more relevant for assessing the potential consequences of *mandatory* rotation.

Audit firm tenure

Proponents of mandatory rotation argue that long tenure can erode auditor independence because of economic bonding and/or the development of close personal relationships between the auditor and client. However, the weight of evidence offers little support for these arguments.

Many studies use earnings quality metrics in an attempt to isolate the impact on audit firm tenure on audit quality (e.g., Johnson *et al.*, 2002; Myers *et al.*, 2003; Davis *et al.*, 2009).

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Johnson *et al.* (2002) measure audit quality using absolute discretionary accruals and the mapping of current accruals to future earnings. Using dummy variables for short audit firm tenure (< four years) and long audit firm tenure (> nine years), they find that short tenure is associated with lower earnings quality relative to medium periods of tenure (between five and eight years), while tenure exceeding nine years is not associated with lower earnings quality. Myers *et al.* (2003) revisit the relation between auditor tenure and earnings quality using the dispersion and sign of absolute abnormal accruals and absolute current accruals. They find that both accruals measures are declining in longer audit firm tenure. Moreover, longer tenure is associated with smaller income-increasing and smaller income-decreasing accruals.

By examining accruals unconditionally, these studies implicitly assume that if discretionary accruals are large (small), earnings management is more (less) prevalent. Davis *et al.* (2009) remedy this by examining whether discretionary accruals are used to meet or beat the consensus analyst earnings forecast. They find a nonlinear U-shaped relation between audit firm tenure and the use of positive discretionary accruals to meet or beat analysts' forecasts during the pre-SOX period. However, this relation disappears during the post-SOX period.

Another stream of literature uses fraudulent financial reporting and financial restatements to measure audit quality (Carcello and Nagy, 2004; Myers *et al.*, 2005). Carcello and Nagy (2004) examine the relation between audit firm tenure and fraudulent financial reporting, which is identified using SEC Accounting and Auditing Enforcement Releases (AAERs). Comparing AAER firms with a matched sample of non-fraud firms and the population of non-fraud firms, they find that fraudulent reporting is more likely to occur during the first three years of audit firm tenure. They find no significant relationship between fraudulent reporting and audit firm tenure exceeding nine years. Similarly, Myers *et al.* (2005) find an insignificant relationship between audit firm tenure and restatements of the audited financial statements.

A third stream of literature examines the relationship between audit firm tenure and the market's perception of earnings quality (Mansi *et al.*, 2004; Ghosh and Moon, 2005). Mansi *et al.* (2004) find a significant negative association between audit firm tenure and the required returns of bondholders, suggesting that bondholders value longer tenure. Using the earnings response coefficient (ERC) as a proxy for shareholders' perceptions of earnings quality, Ghosh and Moon (2005) document a positive relation with audit firm tenure. They also examine the perceptions of credit ratings agencies. They find a stronger link between credit ratings and earnings when audit firm tenure is longer. They also find a stronger association between reported earnings and one-year-ahead analyst earnings forecasts when audit firm tenure is longer, suggesting that analysts perceive earnings as being more informative when tenure is longer.

Overall then, except for Davis *et al.* (2009), most studies find no evidence of a decline in earnings quality as audit firm tenure increases.

Audit partner tenure

Compared with the literature on audit firm tenure, there are relatively few studies on audit partner tenure. This is probably because most countries do not require partners' names to be disclosed and so academic researchers are generally unable to identify when a change of partner occurs. Two studies have been published using data from Australia and Taiwan where partners' names are publicly disclosed.

Carey and Simnett (2006) investigate the association between audit partner tenure and audit quality in Australia. Three measures of audit quality are examined: the auditor's propensity to issue a going-concern opinion to a distressed company; the sign and magnitude of abnormal

working capital accruals; and the incidence of just beating (or missing) various earnings benchmarks. In their long tenure sample (where partner tenure exceeds seven years), Carey and Simnett (2006) find that auditors are less likely to issue going-concern opinions and companies are more likely to just beat earnings benchmarks. They conclude that this is consistent with audit quality deteriorating when partner tenure exceeds seven years. However, they find an insignificant association between audit partner tenure and abnormal working capital accruals.

As noted by Chen *et al.* (2008), a limitation of the Carey and Simnett (2006) study is that it does not distinguish between audit firm tenure and audit partner tenure. Chen *et al.* (2008) remedy this by examining both audit firm tenure and audit partner tenure using a sample of companies from Taiwan. They find that the absolute and positive values of discretionary accruals decrease significantly with audit partner tenure. After controlling for partner tenure, they also find that absolute discretionary accruals decrease significantly with audit firm tenure. This suggests an incrementally positive association between audit firm tenure and earnings quality, above and beyond the positive association between audit partner tenure and earnings quality.

Limitations of the literature on auditor–client tenure

This section discusses three limitations of the literature on audit firm tenure and audit partner tenure.

First, it is very difficult to determine the direction of causality between earnings quality and tenure. The causality issue arises because audit firm tenure is determined by voluntary rotation decisions rather than by a mandatory rotation rule. For example, the literature has generally found that short audit firm tenure is associated with low earnings quality. The problem is how to interpret this relation. One possibility is that short audit firm tenure causes low earnings quality (e.g., due to the new auditor having less or little client-specific knowledge). An alternative possibility is that the auditor–client relationship is more likely to be terminated when earnings quality is relatively low. The second explanation cannot be easily refuted. For example, companies are more likely to voluntarily change audit firms when they manage earnings and when they are shopping for clean audit opinions (DeFond and Subramanyam, 1998; Lennox, 2000). These companies with low quality reporting tend to have short audit firm tenure because they have a higher propensity to dismiss their auditors. There is also an endogeneity problem arising from auditors' resignation decisions because audit firms are more prone to resign from clients that have poor quality financial reporting (Johnstone and Bedard, 2004).

Second, most studies use abnormal accruals metrics but it is questionable whether abnormal accruals are even suitable for measuring earnings quality, never mind audit quality. Abnormal accruals may reflect opportunistic earnings management or they may instead capture fundamental performance due to poorly specified models of normal accruals (Dechow *et al.*, 2010). Even if abnormal accruals are suitable for measuring earnings quality, it is doubtful whether they reliably capture audit quality, because earnings quality is a function of *both* the manager's reporting choices *and* the quality of the audit. Earnings quality can be high even when audit quality is low as long as the manager prepares a high quality report. Further, there can be an inverse relationship between the quality of the manager's financial reporting and the effort exerted by an auditor due to the strategic nature of the interaction between the manager and auditor (Melumad and Thoman, 1990). If an auditor suspects that the manager cannot be trusted to prepare high quality reports, then the auditor has an incentive to work harder and undertake more testing. Conversely, if the manager can be trusted to report fairly, there is less need for abnormally high audit effort.

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Third, most studies on audit firm tenure have been conducted in the US. While this setting has the advantage that the SEC is considering introducing mandatory audit firm rotation, an important limitation is that it is impossible to control for the tenure of audit partners because the names of individual partners are not disclosed. This means that researchers are unable to assess whether mandatory audit partner rotation alone is sufficient or needs to be supplemented with mandatory audit firm rotation. This is an important question because many countries with mandatory partner rotation are considering whether to also introduce mandatory audit firm rotation. Except for Chen *et al.* (2008), I am unaware of any study that examines both audit firm tenure and audit partner tenure jointly.



Mandatory audit firm rotation

As discussed in the previous section, Limitations of the literature on audit–client tenure, identifying causality is a major issue for the literature on auditor tenure. Moreover, the potential consequences of mandatory rotation are difficult to replicate in a voluntary setting. For example, the introduction of mandatory rotation might reduce an auditor’s incentives to acquire client-specific knowledge. Mandatory rotation may also result in a “lame duck” situation whereby the departing auditor has little incentive to provide a high quality audit during his final year of tenure. Therefore, it is useful to consider the emerging evidence on mandatory audit firm rotation.

Ruiz-Barbadillo *et al.* (2009) examine the case of Spain, which introduced mandatory audit firm rotation in 1988 before dropping the policy in 1995. They measure audit quality by examining the issuance of going-concern opinions to financially distressed companies. Their sample period covers a period of mandatory audit firm rotation (1991–4) and a subsequent period in which audit firm rotation period is no longer required (1995–2000). Comparing the frequency of going-concern opinions in these two periods, Ruiz-Barbadillo *et al.* (2009) find no evidence that the abandonment of mandatory rotation affected audit reporting.

Kwon *et al.* (2011) examine the case of South Korea, where mandatory audit firm rotation became effective for listed entities in 2006 before the policy was abandoned in 2009. They use a remarkable dataset on audit hours and audit fees for 12,463 firm–year observations over the period 2000 to 2007. They find a significant increase in audit hours and audit fees during the first year of tenure following the introduction of mandatory rotation. However, their models of audit fees and audit hours apparently do not control for year fixed effects. Thus, it is unclear whether their findings are driven by mandatory rotation or because audit hours and fees are higher in 2006–7 than in 2001–5. Kwon *et al.* (2011) also examine various measures of audit quality and obtain mixed findings. Consistent with a negative impact on audit quality, they find larger income-increasing accruals during the initial year of tenure following mandatory rotation. However, they find insignificant results when alternative metrics for audit quality are employed. In particular, there is no change in the issuance of going-concern opinions to financially distressed companies and there is no change in the likelihood of just meeting or beating the zero earnings benchmark.

Cameran *et al.* (2012) examine the case of Italy, which introduced mandatory audit firm rotation in 1975. Like Kwon *et al.* (2011), they use a proprietary database of audit hours and audit fees. Because Italy has a much longer history of mandatory rotation than South Korea, Cameran *et al.* (2012) focus on a period during which mandatory rotation is already in effect (i.e. 2006–9) rather than a before-versus-after analysis. A nice feature of the Cameran *et al.* (2012) research design is that they are able to control for year fixed effects because the mandatory rotation events in their sample occur at different points in time. Similar to Kwon *et al.* (2011),


Cameran  (2012) find that audit hours are significantly higher during the first year of tenure. Differing from Kwon *et al.* (2011), Cameran *et al.*  (2012) find that audit fees are not higher during the first year of tenure. They also examine earnings quality using abnormal working capital accruals. They find some evidence of lower earnings quality during the first three years following rotation relative to later years of the audit firm's tenure.

In a unique cross-country study, Harris and Whisenant (2012) examine the experiences of Brazil, South Korea, and Italy. They first investigate whether earnings quality improves following the adoption of mandatory audit firm rotation rules. Because Italy has had the rules in place for several decades, this first analysis is conducted on just Brazil and South Korea.² After pooling the companies from Brazil and South Korea into a single sample, Harris and Whisenant (2012) find an improvement in earnings quality following the introduction of mandatory rotation. Their second analysis investigates whether audit quality is different in the years before and after a mandatory change of audit firm compared with the other years of audit firm tenure. They find lower earnings quality in the years before and after mandatory rotation, compared with other years of the tenure period. They conclude that the introduction of audit firm rotation rules improved earnings quality due to an improvement in auditor independence, whereas mandatory audit firm changes caused lower earnings quality due to a loss of knowledge effect.

Mandatory audit partner rotation

Two studies examine the consequences of mandatory partner rotation. Chi *et al.* (2009) capitalize on the fact that in Taiwan, audit partners are identified in audit reports, and in 2004 the two leading Taiwanese stock exchanges effectively mandated audit partner rotation. Chi *et al.* (2009) find that abnormal accruals during the replacement partner's first year following a mandatory partner change are not significantly different from abnormal accruals in a no rotation sample. Moreover, the ERC during the incoming partner's first year is not significantly different from the ERC in the no rotation sample. Chi *et al.* (2009) also compare the first year following mandatory rotation with the first year following voluntary rotation. They find that the ERC is significantly larger in the mandatory rotation sample than in the voluntary rotation sample. However, abnormal accruals are not significantly different in the first year following mandatory rotation compared with the first year following voluntary rotation.

Overall, then, most of the results in the Chi *et al.* (2009) study are statistically insignificant. In their discussion of that article, Bamber and Bamber (2009) point out that it is difficult to interpret a "no-results" study. On the one hand, it could be that the study's tests lack power because the abnormal accruals and ERC measures are noisy proxies for audit quality. On the other hand, it could be that mandatory partner rotation has only a small impact on audit quality relative to the impact of mandatory audit firm rotation. Thus, any effect of mandatory partner rotation may be too small to be discerned using traditional measures of audit quality.

Lennox *et al.* (2011)  address the audit quality measurement issue using a proprietary database of audit adjustments obtained from the Ministry of Finance in China. They argue that mandatory partner rotation can improve audit quality in both the departing partner's final year of tenure and in the first year of the incoming partner's year of tenure. Audit quality is improved during the partner's final year of tenure because the departing partner has a strong incentive to detect and correct any accounting misstatements before the engagement is handed over to the new partner. In addition, audit quality is improved during the first year under the new partner because the incoming partner brings a fresh approach to the audit and is therefore more likely to find financial reporting problems that were missed by the departing partner. Consistent with

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these arguments, Lennox *et al.* (2011) find a higher frequency of audit adjustments during the departing partner's final year of tenure prior to mandatory partner rotation and during the incoming partner's first year of tenure following mandatory partner rotation.

Limitations of the literature on mandatory rotation

Mandatory rotation settings have the advantage that audit firm changes and audit partner changes are determined exogenously by the regulatory requirements. This is important because it helps to identify the *causal* effects of rotation. As noted previously, it is difficult to identify causality under voluntary rotation settings. That said, the mandatory rotation literature also has its limitations.

One limitation that is specific to the literature on mandatory audit firm rotation is that the experiences of Italy, South Korea, and Spain may not generalize to the rest of the world due to the unique institutional features of these countries. For example, Italy imposes a policy of mandatory audit firm *retention* in addition to its policy of mandatory audit firm rotation. The way this works is that an audit firm in Italy receives a three-year contract which can be renewed a maximum of three times. The audit firm then has to be rotated off the engagement at the end of the third contract, i.e., the ninth year of tenure. Similarly, South Korea introduced a three-year audit firm retention requirement in its External Audit Act of 1996. These special arrangements are quite different from most countries where regulatory agencies are considering whether to introduce mandatory audit firm rotation *without* the dual requirement of mandatory audit firm retention.

Spain is another unique setting because although mandatory rotation was introduced in 1988 the policy was never actually enforced. The tenure clock of each auditor–client relationship was reset at zero in 1988, meaning that the first round of mandatory rotation events was scheduled for nine years later, in 1997. However, Spain dropped its mandatory rotation requirement in 1995, two years short of when the first rotation events were scheduled to occur. This means that some of the potential consequences of mandatory rotation were never experienced in Spain. For example, there was no loss of client-specific knowledge around the time of rotation because no mandatory rotation events ever occurred. This needs to be considered in light of Ruiz-Barbadillo *et al.*'s (2009) conclusion that audit quality did not change after Spain's mandatory audit firm rotation policy was dropped.

Another limitation is that the commonly used proxies for audit quality may lack construct validity. Except for Ruiz-Barbadillo *et al.* (2009) and Lennox *et al.* (2011), all of the mandatory rotation studies rely on earnings quality proxies. The Lennox *et al.* (2011) study is a novel attempt to measure audit quality more directly using proprietary data on the incidence of audit adjustments to reported earnings. Since 2006, the Ministry of Finance in China has required audit firms to report to it the pre-audit annual earnings of all of their publicly traded audit clients. Using this data, Lennox *et al.* (2011) identify an audit adjustment as occurring when pre-audit profits are different from post-audit profits. They point out that an audit adjustment occurs when two conditions are met: (1) the client's pre-audit profits are misstated; and (2) the auditor detects the misstatement and requires the client to correct the misstatement through an adjusting entry. The key to their identification strategy is that mandatory rotation can affect condition (2) (i.e., rotation can affect audit quality) but there is no reason to believe that mandatory rotation would directly affect condition (1). In other words, *holding audit quality constant*, mandatory rotation is unlikely to affect the quality of the client's pre-audit financial statements. Accordingly, any association between mandatory rotation and audit adjustments is through condition (2) (audit quality).

Auditor tenure and rotation

A final limitation that is specific to the literature on mandatory audit partner rotation is that most regulatory agencies are interested in the consequences of audit *firm* rotation rather than partner rotation. Bamber and Bamber (2009) point out that the consequences of partner rotation may not transfer to the audit firm rotation setting because partner rotation and audit firm rotation involve different cost and benefits. For example, audit firm rotation generally involves a change of all the staff assigned to an audit. In contrast, when a partner is rotated but the client's audit firm remains the same, other members of the audit team may not be rotated. Further, when partners are rotated but the audit firm remains unchanged, the incoming partner retains access to the audit firm's internal working papers.

Unresolved issues and challenges

There are at least two major issues that remain unresolved. First, we still do not have a clear idea as to whether mandatory audit firm rotation would make audit quality better or worse. Many studies have examined the length of audit firm tenure, but they have done so in regimes where audit firm changes are voluntary rather than mandatory. This makes it difficult to interpret the direction of causality. Is it the case that shorter audit firm tenure causes lower audit quality? Or do the factors associated with low financial reporting quality (e.g., poor management integrity) cause audit firm tenure to be relatively short? The causality issue is further complicated by the fact that most studies use measures of *earnings* quality to evaluate *audit* quality. Second, we have little idea whether mandatory audit partner rotation is an effective substitute for mandatory audit firm rotation. This is the key policy question in many western countries where partners are already subject to mandatory rotation. What policy makers need to know is whether audit firms *also* should be periodically changed.

Clearly these are major challenges for researchers to tackle. To address the causality issue, a researcher would ideally examine mandatory rotation events rather than voluntary rotation events. The problem, however, is that relatively few countries have experimented with mandatory audit firm rotation and the countries that have experimented with this policy tend to have few publicly traded companies for analysis.³ Another limitation is that some of the countries that rely on mandatory audit firm rotation have other regulatory requirements that impinge on auditor selection. For example, Italy and South Korea have rules on mandatory audit firm retention as well as mandatory rotation.

A second challenge is that – when a country introduces mandatory audit firm rotation – the new rule tends to be introduced for *all* publicly traded companies at the same point in time. For example, Italy introduced mandatory audit firm rotation for all of its listed entities in 1975; likewise the rule in South Korea became effective for all of its listed entities in 2006. In such settings, researchers lack an effective control sample to assess what would have happened to companies in the absence of the rule change. For example, there is no control sample of Italian companies that were *not* affected by the rule change in 1975. Therefore, it is difficult to determine whether audit quality is affected by the introduction of mandatory rotation or by other factors that changed around the same time. These other factors can be controlled for if the researcher has a control group of companies that are not subject to the new rule.

A third challenge is that most countries do not require public disclosure of audit partners' names. Accordingly, it is difficult for researchers to examine whether audit firm rotation has incremental consequences above and beyond the consequences of mandatory audit partner rotation.

In the Conclusion, I discuss two ways in which policy makers and academic researchers can work together to overcome these major challenges.

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Conclusion: A way forward

Academic research has been unable to provide clear answers about the consequences of mandatory audit firm rotation, but the absence of clear answers is not the fault of academics. Rather, there are major external challenges that prevent us from doing research that would be truly informative for policy makers. I have two suggestions to help resolve this impasse.

1. *If mandatory audit firm rotation is to be introduced then do so on a partial basis*

Given the PCAOB's recent comments and the EC Green Paper, there is a distinct possibility that some form of mandatory audit firm rotation will be introduced in the US and/or Europe. If it is introduced, then policy makers will presumably want to assess the consequences. My concern is that if a new rule is introduced for *all* publicly traded entities, it will be difficult to assess the impact because researchers and policy makers will lack a control sample of companies that are not affected by the new rule. From an experimental design perspective, the best way to assess the impact of a new policy is to introduce it for some companies but not for others. There is a clear precedent for this in Section 404 of SOX, which requires auditor attestation of internal control reports for accelerated filers but *not* for non-accelerated filers. This quasi-natural experiment has allowed academic researchers to provide compelling evidence on the causal impact of S404 (e.g., see Doogar *et al.*, 2010; Iliev, 2010; Kinney and Shepardson, 2011). I am not trying to claim that SOX made a distinction between accelerated and non-accelerated filers in order to facilitate academic research. Rather my point is that academics have been able to provide fairly compelling evidence because the rule was applied to some but not all companies. Policy makers were then able to draw upon this evidence when they decided that internal control audits should not be extended to non-accelerated filers. *If mandatory audit firm rotation is to be introduced*, I would argue that the same prudent approach can be used. That is, regulators can consider initially introducing mandatory rotation to a subset of publicly traded companies rather than all publicly traded companies. This would allow for a careful assessment of the consequences before regulators decide whether the policy should be extended to all publicly traded entities or the policy should be abandoned.

2. *Disclose partners' names*

The United Kingdom has recently required audit partners' names to be disclosed in audit reports. The PCAOB is considering introducing the same requirement in the US. I see little downside from requiring audit partners' names to be disclosed. A potential upside is that researchers would then be able to control for audit partner rotation when assessing whether mandatory audit firm rotation has an *incremental* effect on audit quality. This would be useful from the perspective of policy making.

Notes

- 1 Except for Ruiz-Barbadillo *et al.* (2009), all of the studies discussed in this section were unpublished working papers at the time of writing this article.
- 2 Their treatment of South Korea is different from that of Kwon *et al.* (2011) because Harris and Whisenant (2012) use the year in which the mandatory rules were first *enacted* (i.e., 2003) whereas Kwon *et al.* (2011) use the year in which the rules first became *effective* (i.e., 2006).



3 Several countries impose audit firm rotation for special types of entity, e.g., banks. However, the problem remains that few reporting entities are affected by these rules. For example, Singapore has imposed mandatory audit firm rotation on its six local banks, which is too few for a meaningful statistical analysis.

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