How does mandatory audit partner rotation affect audit quality?

Evidence from Australia

A.J.F. de Swart
June 29, 2012

How does mandatory audit partner rotation affect audit quality?

Evidence from Australia

Master thesis Department Accountancy

Faculty of Economics and Business Studies

Tilburg University

Name:	A.J.F. de Swart
ANR:	S160990
Graduation date:	July 12, 2012
Supervisor:	Sofie Vandenbogaerde
Organization:	PricewaterhouseCoopers (PwC)
Organization supervisor:	Luc Prevoo

How does mandatory audit partner rotation affect audit quality? Evidence from Australia is a thesis written in order to complete my Master program in Accounting at Tilburg University.

Firstly, I would like to thank my supervisor Sofie Vandenbogaerde for her comments on the content of my master thesis. Also, I would like to extant my gratitude to my colleagues at PricewaterhouseCoopers Eindhoven. Especially, I would like to thank my organization supervisor Luc Prevoo for the guidance and support related to my internship at PricewaterhouseCoopers Eindhoven and the writing of my thesis. Last but not least, I would like to thank my family and friends for their support during the process of writing my thesis.

Tilburg University, June 2012

Abstract

Prior literature provides evidence of a reduction in audit quality associated with long audit partner tenure. Mandatory rotation of the audit partner is suggested as a means of improving audit quality by limiting audit partner tenure. This study examines the effect of mandatory audit partner rotation on audit quality, proxied by abnormal working capital accruals (AWCA). Using data from Australia, where the name of the audit partner is publicly disclosed on the audit report of listed companies, I examine whether audit quality increases within the limited audit partner tenure period of five years. Furthermore, I investigate whether the delivered audit quality is lower the year after the audit partner switch than the year before the switch, controlling for changes in audit firm. Multivariate results indicate no association between audit partner tenure and audit quality. Moreover, results do not provide significant evidence that the delivered audit quality is lower the year after the audit partner switch than the year before the switch.

Table of contents

I. Introduction

Due to corporate scandals as Enron and WorldCom in the United States and Parmalat in Europe, there has been an increasing focus on auditor independence (Chen, Lin & Lin, 2008). Last decade, the performance of auditors is criticized and auditors are often perceived to lack independence. This lack of auditor independence decreases the quality of the audit.

Legislators, regulators and professional bodies suggest mandatory auditor rotation after a fixed period of auditor tenure as a means of improving the independence of the auditor (Firth, Rui, & Wu, 2011). Mandatory auditor rotation can occur either at the firm or at the partner level. Mandatory audit firm rotation has been implemented in a small number of countries, including Brazil, India, Italy, Singapore and South Korea (Cameran, Di Vincenzo, & Merlotti, 2005). While mandatory firm rotation is still being debated in most countries (Chen et al., 2008), mandatory audit partner rotation has been implemented in many jurisdictions around the world. Mandatory partner rotation is currently practiced in, for example, the United States, the United Kingdom, the Netherlands, Germany, Singapore, France, Spain, Japan, Taiwan and Australia (Chen et al., 2008; Chi, Huang, Liao, & Xie, 2009).

The basis for this policy of mandatory rotation is the assumption that long auditor tenure, which indicates the length of the relationship between the auditor and the client (Chen et al., 2008), reduces audit quality. Prior literature defines audit quality as the probability that a breach in the accounting system of the audit client is both discovered and truthfully reported by the auditor (DeAngelo, 1981). Therefore, the competence and the independence of the auditor are two important components of audit quality. Auditor independence, which is the focus of this study, consists of two elements, namely independence in fact and independence in appearance. Independence in fact is a state of mind and exists when the auditor is actually able to maintain an unbiased attitude throughout the audit. Independence in appearance is an external assessment and can be defined as the result of others' interpretations of the independence of the auditor (Elder, Beasley, & Arens, 2010; Raiborn, Schorg, & Massoud, 2006). Both elements of independence must exist. If the auditor is independent in fact but appears not to be independent, most of the value of the audit function is lost.

Auditor independence is suggested to be negatively affected by auditor tenure. Long auditor tenure may give rise to concerns about familiarity and self-interest threats to auditor independence (Carey & Simnett, 2006; Chi & Huang, 2005; Firth et al., 2011). The Code of Ethics for Professional Accountants, hereafter the Code of Ethics, defines familiarity threats as: "threats that due to a long or close relationship with a client or employer, a professional accountant will be too sympathetic to their interests or too accepting of their work" (Code of Ethics, p. 8). Self-interest threats are defined as: "threats that a financial or other interest will inappropriately influence the professional accountant's judgment or behavior" (Code of Ethics, p. 8). As these threats are

stimulated by long auditor tenure, long auditor tenure may increase the likelihood of impaired auditor independence.

Therefore, mandatory auditor rotation at either the firm or at the partner level is suggested as a means of improving auditor independence (Firth et al., 2011). Several studies examine the relation between audit firm tenure and audit quality. Despite the implementation of mandatory audit partner rotation in many jurisdictions around the world, few studies examine the relation between audit partner tenure and audit quality. Most likely reason for this lack of research attention is the unavailability of audit partner information, since in most countries audit partners are not mentioned in audit reports (Chen et al., 2008). Another reason for the lack of research on this topic is the recent implementation of mandatory audit partner rotation, since in most countries audit partner rotation became mandatory in the early twentieth century.

The focus of this study is Australia, as both audit firm and audit partner names are publicly disclosed on the audit report of listed companies. Since the 1970s, the audit partner of listed Australian companies is required to sign the audit report both in their own name and in the name of the audit firm (Carey & Simnett, 2006). Therefore, audit partner information is publicly disclosed on the audit report of listed Australian companies and it is possible to undertake an empirical evaluation of whether a policy of mandatory audit partner rotation enhances audit quality.

Focusing on firms that are subject to mandatory audit partner rotation, this study investigates the effect of mandatory audit partner rotation on audit quality. The measure of abnormal working capital accruals as developed by DeFond and Park (2001) is used to proxy for audit quality. It is examined (1) whether audit quality increases within the limited audit partner tenure period of five years and (2) whether the delivered audit quality is lower the year after the audit partner switch than the year before the switch, controlling for changes in audit firm. Multivariate results indicate no association between audit partner tenure and audit quality as measured by absolute amounts of abnormal working capital accruals. Therefore, results do not suggest audit quality increases within the limited audit partner tenure period. Furthermore, results do not provide evidence that delivered audit quality is lower the year after the audit partner switch than the year before the switch.

This study contributes to the literature on auditor tenure and audit quality by providing evidence at the audit partner level. The results of this study are relevant to expand the knowledge on mandatory audit partner rotation. Furthermore, this study provides useful evidence for legislators, regulators and other professional bodies regarding the effectiveness of mandatory auditor rotation after a fixed period of auditor tenure as a means of improving the independence of the auditor. In contrast to previous studies, this study examines the direct effect of mandatory audit partner rotation on audit quality. Extant literature examines the relation

between audit partner tenure and audit quality in a period before audit partner rotation was mandatory. Auditor incentives under a regime of mandatory audit partner rotation may differ, since the horizon for the relationship between the audit partner and the client is known to both. Therefore, results of extant literature cannot be generalized to a regime in which audit partner rotation is mandatory (Carey & Simnett, 2006; Johnson, Khurana, & Reynolds, 2002).

The remainder of this study is organized as follows. The next section reviews related studies and develops the hypotheses. Section III describes the research method and the sample selection process. Section IV discusses the empirical findings, and section V concludes and outlines the implications of the findings.

II. Literature review and hypotheses development

Literature review

Prior studies examine the relation between auditor tenure and audit quality, which is defined as the probability that a breach in the accounting system of the audit client is both discovered and truthfully reported by the auditor (DeAngelo, 1981). The probability of discovering a breach in the accounting system is dependent upon the technical capabilities of the auditor, whereas the probability of reporting a breach is dependent upon auditor independence. Therefore, the competence and the independence of the auditor are two important components of audit quality.

In this study, however, I mainly focus on the independence of the auditor. Auditor independence is suggested to be negatively affected by auditor tenure, which indicates the length of the relationship between the auditor and the client (Chen et al., 2008). The longer auditor tenure, the lower auditor independence which is reflected in lower audit quality (Carey & Simnett, 2006; Chi & Huang, 2005; Firth, Rui, & Wu, 2011). Mandatory auditor rotation at both the firm and the partner level after a fixed period of tenure are suggested as means of improving auditor independence. Mandatory auditor rotation limits auditor tenure, thereby maintaining the independence of the auditor.

Several studies examine the relation between audit firm tenure and audit quality. Despite the implementation of mandatory audit partner rotation in many jurisdictions around the world, few studies examine the relation between audit partner tenure and audit quality.

Audit firm tenure and audit quality

Catanach and Walker (1991) summarize research evidence with regard to mandatory audit firm rotation. Proponents of mandatory audit firm rotation state that audit firm rotation restricts audit firm tenure, thereby preventing the development of long-term auditor-client relationships. These long-term auditor-client relationships could impair auditor independence and thus impair objectivity, which may lead to lower audit quality. Proponents state that mandatory audit firm rotation might increase the incentives of the auditor to resist management pressures. On the other hand, opponents of mandatory audit firm rotation state that the costs associated with audit firm rotation outweigh the benefits. Audit costs would increase considerably, with an increase in audit fees as result. Overall, it is not clear whether mandatory audit firm rotation is beneficial.

There are a number of studies on the relationship between audit firm tenure and audit quality, using various measures of audit quality. For example, Geiger and Raghunandan (2002) examine the association between auditor tenure and audit reporting failures. A reporting failure is defined as a case where a bankrupt company did not receive a going concern modified audit report from the auditor prior to bankruptcy. Results indicate a positive association between auditor tenure and the likelihood of a bankrupt company having received a

going concern modified audit report in previous year. Thus, longer auditor tenure is not associated with reporting failures. Similar to Geiger and Raghunandan (2002), Knechel and Vanstraelen (2007) show that longer auditor tenure does not deteriorate audit quality. Ruiz-Barbadillo, Gómez-Aguilar, and Carrera (2009) examine the impact of mandatory audit firm rotation on auditor independence, as measured by the propensity of the auditor to issue going concern audit opinions. The results of this study do not support the suggestion that mandatory audit firm rotation enhances auditor independence. Instead, mandatory audit firm rotation may have adverse effects on audit quality. Jackson, Moldrich, and Roebuck (2007) examine the effect of mandatory audit firm rotation on audit quality, using both the propensity to issue a going-concern audit opinion and the level of discretionary accruals as measures of audit quality. The authors find no evidence of reduced audit quality for long audit firm tenure and conclude that audit quality will not be improved by mandatory audit firm rotation.

Johnson, Khurana and Reynolds (2002) investigate the association between audit firm tenure and financial reporting quality, proxied by reported accruals. The authors document that relative to medium audit firm tenure of four to eight years, short audit firm tenure of two to three years is associated with lower quality financial reporting. No evidence is found of reduced financial reporting quality for long audit firm tenure of nine or more years. Myers, Myers, and Omer (2003) find a positive relation between audit firm tenure and audit quality. Results indicate that longer auditor tenure does not lead to reduced audit and earnings quality. Cameran, Prencipe, and Trombetta (2003) examine the effect of audit firm tenure on audit quality, measured in terms of earnings management, under a mandatory audit firm rotation regime. Findings indicate that longer auditor tenure does not deteriorate audit quality.

Other studies investigate the relation between audit firm tenure and audit quality, as measured by restatements. Myers, Myers, Palmrose, and Scholz (2003) examine the issue of mandatory audit firm rotation in the context of financial statement restatements. Results do not provide support for mandatory audit firm rotation. Carcello and Nagy (2004) examine the relation between audit firm tenure and audit quality, using fraudulent financial reporting as a proxy for audit quality. The relation of fraudulent financial reporting with short audit firm tenure of three years or less and long audit firm tenure of nine years or more is considered, in accordance with Johnson et al. (2002). Results indicate that fraudulent financial reporting is more likely given short audit firm tenure. No evidence is found that fraudulent financial reporting is more likely given long audit firm tenure. Thus, there is some evidence that longer tenure may improve audit quality.

In contrast to studies described so far, other studies on the relationship between audit firm tenure and audit quality indicate that audit quality is lower given longer audit firm tenure. Deis and Giroux (1992) investigate the determinants of audit quality in the public sector. An incumbent auditor has the incentive to lower audit quality to retain the client. Results indicate a decline in audit quality with the length of auditor tenure.

Vanstraelen (2000) analyses the impact of renewable long-term audit mandates on audit quality. Results suggest that longer auditor tenure increases the likelihood of an unqualified opinion or reduces the willingness of the auditor to qualify audit reports. Therefore, audit quality is lower given longer auditor tenure. Davis, Soo, and Trompeter (2000) examine the association between auditor tenure and earnings management, as measured by discretionary accruals. Given longer auditor tenure, an increase in discretionary accruals is found. The authors conclude that additional reporting flexibility is gained by management as auditor tenure increases. Findings are consistent with the suggestion that longer auditor tenure impairs auditor independence and thus lowers audit quality. Dopuch, King, and Schwartz (2001) investigate whether mandatory rotation and/or retention of auditors increases the independence of the auditor. The experimental results indicate that mandatory rotation can increase auditor independence, and thus audit quality. Davis, Soo, and Trompeter (2009) investigate the relation between auditor tenure and earnings management, focusing on a pre-SOX period and a post-SOX period. In the pre-SOX period, an increase in the use of discretionary accruals in both the early and the later years of the auditor-client relationship is found, indicating deterioration in audit quality. Chung (2004) examines whether the audit designation rule in Korea improves audit quality, as measured by discretionary accruals. The intent of the auditor designation rule is to enhance auditor independence and mandates auditor changes for problematic firms. Results indicate that limited auditor tenure improves audit quality. Similarly, Kim and Yi (2009) conclude that mandatory audit firm rotation has a positive effect on audit quality. The audit designation rule in Korea enhances the credibility of financial reporting.

Audit partner tenure and audit quality

Since in most countries audit partners are not mentioned in audit reports (Chen et al., 2008) and audit partner rotation became mandatory in the early twentieth century, little empirical investigation exists with regard to the relationship between audit partner tenure and audit quality. However, as audit reports in Australia and Taiwan contain both audit firm and audit partner names (Carey & Simnett, 2006; Chi et al., 2009), there are some studies on the effect of audit partner tenure on audit quality.

Myers et al. (2003) examine the relation between auditor tenure and earnings quality, as measured by absolute discretionary and current accruals. Results indicate that longer auditor tenure does not lead to reduced audit and earnings quality. Similarly, Chen et al. (2008) investigate the relationship between auditor tenure and earnings quality, using discretionary accruals as a proxy for earnings quality. Auditor tenure includes both audit partner tenure and audit firm tenure. The authors conclude that longer auditor tenure increases earnings quality. Audit partner rotation could have detrimental effects on earnings quality. The same applies to audit firm rotation in addition to audit partner rotation.

However, there are also some studies that indicate that audit quality is lower given longer audit partner tenure. For example, Chi and Huang (2005) examine the relationship between both audit firm and audit partner tenure and earnings quality using Taiwanese data. They document that audit quality initially increases but starts to decrease as audit partner tenure exceeds five years, indicating that familiarity produces higher quality of earnings, but excessive familiarity impairs earnings quality. Hamilton, Ruddock, Stokes, and Taylor (2005) investigate the association between audit partner rotation and earnings quality using Australian data. Unexpected accruals and a measure of loss recognition are used to proxy for earnings quality. They show that audit partner rotation enhances the quality of earnings. In addition, Carey and Simnett (2006) examine the association between long audit partner tenure and audit quality using data from Australia. Measures of audit quality are the auditor's propensity to issue a going-concern audit opinion for distressed companies, the direction and amount of abnormal working capital accruals, and just beating (missing) earnings benchmarks. Results indicate deterioration in audit quality associated with long audit partner tenure, as measured by the auditor's propensity to issue going-concern audit opinions and the incidence of just beating (missing) earnings benchmarks. No association of abnormal working capital accruals with long audit partner tenure is found.

Using the propensity to issue a modified audit opinion as a proxy for audit quality, Firth et al. (2011) investigate how various forms of auditor rotation (partner rotation, firm rotation, mandatory rotation and voluntary rotation) affect audit quality. The effect of audit firm rotation and audit partner rotation on auditor independence is examined in the Chinese capital market setting. Overall, a positive effect of mandatory audit partner rotation on audit quality is documented for firms located in less developed regions. They find no evidence that indicates that mandatory audit firm rotation is more effective than other forms of auditor rotation.

Development of hypotheses

Based on the review of the literature, it is not clear whether mandatory auditor rotation at both the firm and the partner level enhances the independence of the auditor. Despite mixed evidence regarding mandatory rotation as a solution for auditor independence concerns, mandatory audit firm rotation has been implemented in Brazil, India, Italy, Singapore and South Korea (Cameran et al., 2005). In contrast to mandatory audit firm rotation, mandatory audit partner rotation has been implemented in many jurisdictions around the world. Mandatory audit partner rotation is currently practiced in the United States, the United Kingdom, the Netherlands, Germany, Singapore, France, Spain, Japan, Taiwan and Australia (Chen et al., 2008; Chi et al., 2009).

Relative to mandatory audit partner rotation, mandatory audit firm rotation has greater potential to reduce the familiarity and self-interest threats to auditor independence. Mandatory audit firm rotation prevents the development of a long or close relationship between the client and the audit firm. However, mandatory audit

firm rotation can lead to a greater loss of client-specific knowledge compared to mandatory audit partner rotation (Firth et al., 2011). This greater loss of client-specific knowledge could potentially impair audit quality. In case of mandatory audit partner rotation, the familiarity and self-interest threats to auditor independence are reduced and both the audit client and the client-specific knowledge remain within the audit firm. Therefore, an increase in audit quality is more likely in case of mandatory audit partner rotation.

The focus of this study is mandatory audit partner rotation, which is suggested to prevent auditors from becoming too aligned with client management. Furthermore, mandatory audit partner rotation is suggested to reduce the inadequate influence of the client on the audit partner and to mitigate familiarity and self-interest threats to auditor independence. Mandatory audit partner rotation is seen as a solution for auditor independence concerns. Basis for a policy of mandatory audit partner rotation is a reduction in audit quality associated with long audit partner tenure. It is assumed that a sufficiently high level of audit quality is achieved in the years up to the recommended rotation (Carey & Simnett, 2006). Therefore, an increase in audit quality within the limited audit partner tenure period is expected and the following hypothesis is formulated:

HYPOTHESIS 1. Audit quality increases within the limited audit partner tenure period.

Under a regime of mandatory audit partner rotation, it is not only interesting to investigate the effect of mandatory audit partner rotation on audit quality within the limited audit partner tenure period, but also the effect of the mandatory audit partner switch on the quality of the audit.

Extant literature indicates auditor rotation limits the understanding of the client's business, operations and systems to only a few years. The auditor develops knowledge of the client's accounting systems and internal control over time (Arruñada & Paz-Ares, 1997). Client-specific knowledge and experience will be partially lost due to mandatory audit partner rotation, since the client-specific knowledge and experience cannot be transferred completely to the successive auditor. Due to less client-specific knowledge in the early years of the relationship (Carcello & Nagy, 2004; Johnson et al., 2002), audit quality is expected to be lower the year after the audit partner switch than the year before the switch. Therefore, the second hypothesis is formulated as follows:

HYPOTHESIS 2. If audit partners are mandatorily rotated, the delivered audit quality is lower the year after the audit partner switch than the year before the switch.

III. Methodology

Research method

In order to test whether audit quality increases in the later years of the limited audit partner tenure period (HYPOTHESIS 1), the following model is suggested:

$$AWCA = \beta_0 + \beta_1 TENURE + \beta_2 AGE + \beta_3 SIZE + \beta_4 BIG\ 4 + \beta_5 CFO + \beta_6 FSWITCH + \beta_7 MINING + \beta_8 LEV + \beta_9 LOSS + \beta_{10-19} YEAR + \varepsilon \quad (1)$$

where

$AWCA$	= absolute value of abnormal working capital accruals;
$TENURE$	= the number of consecutive years that the firm has retained the audit partner;
AGE	= natural logarithm of number of years since listing on the Australian Stock Exchange;
$SIZE$	= natural logarithm of total assets of the company at financial year-end;
$BIG\ 4$	= an indicator set to 1 if the auditor is a Big 4 auditor, and set to 0 otherwise;
CFO	= operating cash flow divided by total assets;
$FSWITCH$	= an indicator set to 1 if an audit firm switch has occurred, and set to 0 otherwise;
$MINING$	= an indicator set to 1 if mining industry, and set to 0 otherwise;
LEV	= total liabilities divided by total assets;
$LOSS$	= an indicator set to 1 if client reported a loss for the previous year, and 0 otherwise;
$YEAR$	= year dummies for 2001 – 2009.

To test whether audit quality is lower the year after the audit partner switch than the year before the switch (HYPOTHESIS 2), the following model is estimated:

$$AWCA = \beta_0 + \beta_1 LYFY + \beta_2 AGE + \beta_3 SIZE + \beta_4 BIG\ 4 + \beta_5 CFO + \beta_6 FSWITCH + \beta_7 MINING + \beta_8 LEV + \beta_9 LOSS + \beta_{10-19} YEAR + \varepsilon \quad (2)$$

where

$LYFY$	= an indicator set to 1 if an audit partner is in the first year of the new mandate, and set to 0 if an audit partner is in the last year of the old mandate.

Consistent with prior literature, it is assumed that extreme management reporting decisions are mitigated by increased audit quality. That is, the higher audit quality, the lower the extent to which earnings are managed. Accruals are commonly used in order to identify extreme management reporting decisions. This study concentrates on abnormal working capital accruals (AWCA) and utilizes the proxy measure of AWCA as

developed by DeFond and Park (2001).[1] AWCA is the difference between realized working capital and an expected level of working capital needed to support a current sales level. In order to capture expected working capital needed to support a current sales level, a historic relation of working capital to sales is used. In comparison to a measure using total accruals, which includes both normal and abnormal accruals, DeFond and Park (2001) find their measure to be a more powerful test. Furthermore, prior research suggests that management can exert the most discretion over abnormal working capital accruals (Asbaugh, LaFond, & Mayhew, 2003; Becker, DeFond, Jiambalvo, & Subramanyam, 1998).

AWCA are calculated based on the following formula:

$$AWCA_t = WC_t - [\left(\frac{WC_{t-1}}{S_{t-1}}\right) \times S_t] \quad (3)$$

where

t = year, $t-1$ refers to the prior year;

$AWCA_t$ = abnormal working capital accruals in the current year;

WC_t = noncash working capital in the current year computed as (current assets – cash and short-term investments) – (current liabilities – short-term debt);

WC_{t-1} = noncash working capital in the prior year;

S_t = sales in current year; and

S_{t-1} = sales in prior year.

All variables are scaled by average total assets (Myers et al., 2003; Carey & Simnett, 2006).

The absolute value of AWCA indicates the degree to which management exercises discretion in reporting decisions.

The variable of primary interest in model (1) is TENURE. TENURE indicates the number of consecutive years that the firm has retained the audit partner and can have values set between 1 and 5. If audit quality increases in the later years of the limited audit partner tenure period, then the absolute amounts of AWCA are expected to be lower in these later years. Therefore, the coefficient on TENURE is expected to be negative. In model (2), the sign of the coefficient on the variable LYFY is of primary concern. LYFY obtains a value of 1 if the audit partner is in the first year of the new mandate and a value of 0 if the audit partner is in the last year of the old mandate. If audit quality is lower the year after the audit partner switch than the year before the switch, then larger absolute amounts of AWCA are expected in the year after the audit partner switch. Therefore, the coefficient on LYFY is expected to be positive.

[1] Due to the lack of sufficient observations by industry, the Modified Jones model (Dechow, Sloan & Sweeney, 1995) cannot be estimated.

Based on prior studies, several control variables are included in both models (Myers et al., 2003; Carey & Simnett, 2006; Chi et al., 2009). AGE is included to control for changes in firm life cycle (Anthony & Ramesh, 1992; Dechow, Richardson, &Tuna, 2001). As the extent to which earnings are managed is expected to be lower as a company's age increases, the coefficient on AGE is expected to be negative. SIZE is included because larger companies have the tendency to record larger, more stable accruals (Dechow & Dichev, 2002). Abnormal accruals for larger companies are expected to be less extreme. Therefore, the coefficient on SIZE is expected to be negative. BIG 4 is included in the model to control for differences solely due to the type of auditor. Prior findings indicate that Big 4 audit firms tend to be more conservative and limit the ability to which management is allowed to exercise discretion in reporting decisions. The coefficient on BIG 4 is expected to be negative. In order to control for a negative relation between accruals and cash from operations, CFO is included (Dechow, 1994; Sloan, 1996). FSWITCH is included to control for differences due to an audit firm switch. AWCA are expected to be less extreme for companies with longer audit firm tenure (Johnson et al., 2002; Myers et al., 2003). The coefficient on FSWITCH is expected to be positive. Due to the large number of mining companies listed on the Australian Stock Exchange (ASX) and their potentially different financial profiles, MINING is included (Butterworth & Houghton, 1995). LEV is included in order to capture risks associated with higher levels of debt. The coefficient on LEV is expected to be positive, as the extent to which earnings are managed is expected to be higher with higher levels of debt. Companies with continued losses are more likely to fail and therefore LOSS is included in the model. The coefficient on LOSS is expected to be positive. Finally, dummy variables that represent calendar year are included.

Sample selection and data

The population of interest is Australian companies listed on the Australian Stock Exchange (ASX) for the years 2001 – 2010. The focus of this study is Australia as both audit firm and audit partner names are publicly disclosed on the audit report of listed companies. The sample period starts from 2001 because, before that date, there was no statutory requirement to rotate the audit partner. In Australia, audit partners are required to rotate every five years and the rotating partner should not resume the audit of the audit client until a period of at least two successive financial years has passed. More information on the specific legislation with regard to audit partner rotation is added in the appendix. The population of companies listed on the Australian Stock Exchange (ASX) obtained from the Orbis database is 1,947. Of these, companies that undertook an IPO during the sample period, derived from the Zephyr database, have been removed in order to capture only those companies that were listed during the entire sample period. This results in a sample of 1,279 companies. Unfortunately, audit partner information is not available in databases. Therefore, audit partner data are hand collected from the annual reports. Annual reports are obtained from websites and only those companies that publish annual reports for the entire sample period remain in the sample. As most companies only publish recent annual reports on their website, the sample is reduced to 169 companies. In

addition, 21 companies are lost due to missing audit partner information in the audit report. Furthermore, a limited audit partner tenure period of five years is required. For the remaining sample, firms that have deviant tenure periods are excluded, resulting in a sample of 78 companies. Financial information is gathered from the Compustat Global database. Unfortunately, 19 companies cannot be found in the Compustat Global database. However, I was able to hand collect financial information from annual reports. In order to determine AWCA, prior year information is required. 1 company is deleted because the required prior year information is not available, resulting in a sample of 77 companies. Companies in the finance, insurance and real estate industry (SIC 6) are also excluded as their total asset base and financial structure is not comparable to those of the other companies. This results in a final sample of 59 Australian companies listed on the Australian Stock Exchange (ASX). Table 1 summarizes this sample selection procedure.

Table 1 – Sample selection

Selection Mode	Number of Companies
Listed Australian companies from year 2001 to 2010	1,947
Companies that undertook an IPO during sample period	(668)
Missing annual reports	(1,110)
Missing audit partner information	(21)
Limited audit partner tenure period longer or shorter than 5 years	(70)
Missing information previous fiscal year	(1)
Companies in the finance, insurance and real estate industry	(18)
Final sample	**59**

The sample selection process yielded a final sample of 59 companies listed on the Australian Stock Exchange (ASX).

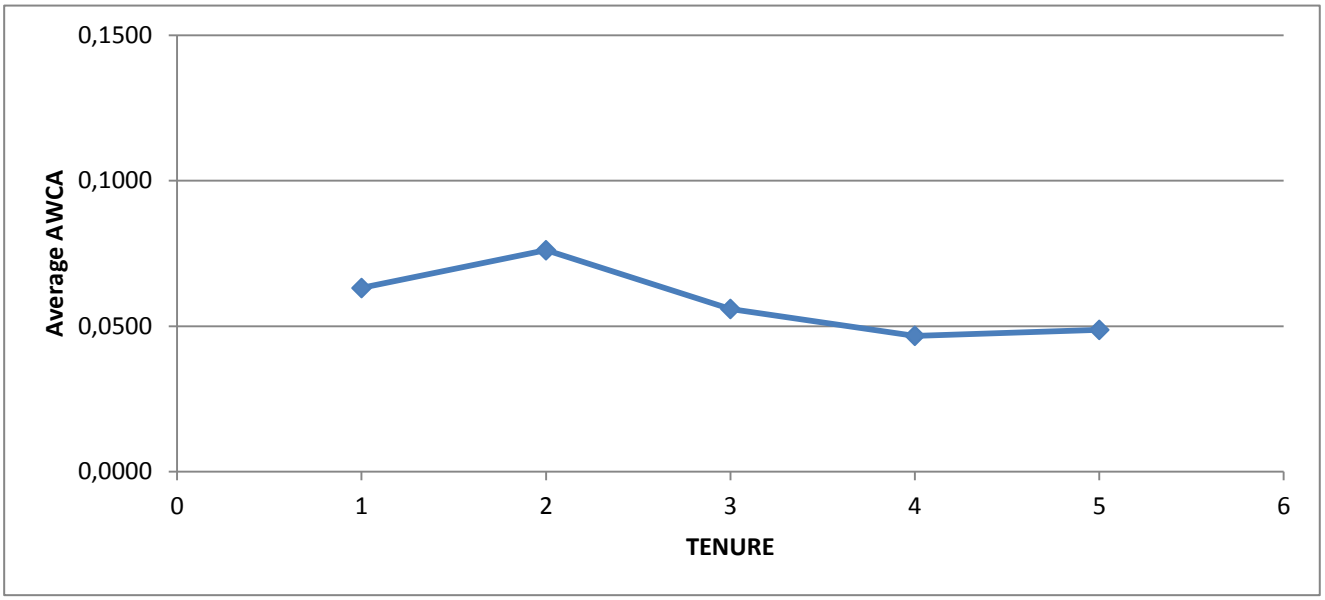
In order to test both hypotheses, the final sample is divided into subsamples. The focus of HYPOTHESIS 1 is the limited audit partner tenure period of five years. To test whether increased audit quality occurs in the later years of the limited audit partner tenure period, 8 companies are included twice. 1 company is deleted because the absolute value of abnormal working capital accruals does not report a consistent pattern. The sample to test HYPOTHESIS 1 consists of 330 firm-year observations, 66 companies over a period of five years. HYPOTHESIS 2 focuses on audit quality the year before the audit partner switch and the year after the switch. In order to test HYPOTHESIS 2 the sample consists of 54 companies over a period of two years, resulting in 108 firm-year observations.

IV. Results

Univariate analysis

Figure 1 presents the effect of the variable TENURE on average AWCA. If audit quality increases in the later years of the limited audit partner tenure period, then average AWCA are expected to be lower in these later years. Figure 1 indicates a negative relation between the variable TENURE and average AWCA. That is, the longer audit partner tenure, the smaller average AWCA. However, after the fourth year of audit partner tenure, average AWCA slightly increase.

Figure 1 – Relation between TENURE and average AWCA



In addition to the results presented in Figure 1, independent samples t-tests are performed in order to determine whether or not the mean differences in average AWCA are significant. While Figure 1 indicates a negative relation between the variable TENURE and average AWCA, none of the mean differences in average AWCA are significant. This result is inconsistent with expectations, since the mean differences in average AWCA were expected to be significant. More information with regard to the independent samples t-tests and the significance of the mean differences in average AWCA is added in the appendix.

Descriptive statistics on all variables included in model (1) are presented in Table 2. The mean of the variable AWCA equals 0.058. The results indicate that companies have been listed on the Australian Stock Exchange (ASX) on average 2.62 years. The mean of the variable SIZE equals 14.84 and about 81 percent of the sample observations are audited by Big 4 audit firms. The mean of the variable CFO equals 0.021. An audit firm switch applies to 6 percent of the sample observations and about 32 percent of the sample observations are in the

mining industry. The mean of the variable LEV is 0.427. About 28 percent of the sample observations reported a loss for the previous year.

Table 2 – Descriptive statistics HYPOTHESIS 1 (N = 330)

Variable	Mean	Median	Standard deviation	Minimum	Maximum
AWCA	0,058	0,032	0,082	0,000	0,593
TENURE	3,000	3,000	1,416	1,000	5,000
AGE	2,621	2,565	0,784	0,000	4,043
SIZE	14,844	15,043	2,481	9,456	19,214
BIG 4	0,810	1,000	0,396	0,000	1,000
CFO	0,021	0,070	0,268	-2,400	0,534
FSWITCH	0,060	0,000	0,239	0,000	1,000
MINING	0,320	0,000	0,466	0,000	1,000
LEV	0,427	0,472	0,220	0,003	1,058
LOSS	0,280	0,000	0,452	0,000	1,000

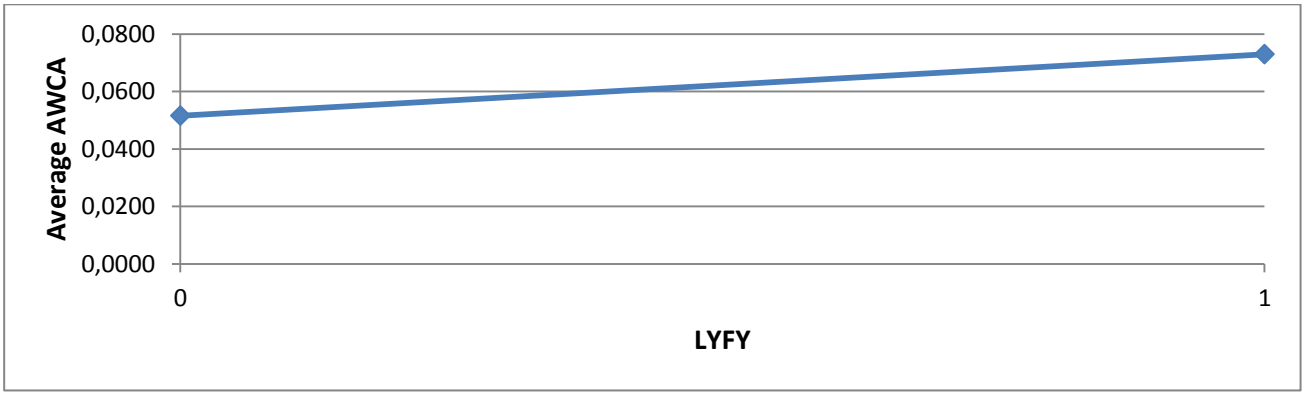
Table 3 provides the Pearson correlation matrix among the variables included in model (1). The results indicate that the variable TENURE is negatively correlated with absolute amounts of AWCA. This result is consistent with expectation and the notion that audit quality increases in the later years of the limited audit partner tenure period. Among the control variables included in the model, the variables AGE, SIZE and LEV are negatively correlated with absolute amounts of AWCA. In contrast, the variable LOSS is positively correlated with absolute amounts of AWCA. No significant correlation between the variables BIG 4, CFO and FSWITCH with absolute amounts of AWCA is found. Table 3 also indicates that correlations among independent variables have an absolute coefficient of less than 0.70. Therefore, high correlations between independent variables are not present and there is no sign of sizeable multicollinearity.

Table 3 – Pearson correlation matrix HYPOTHESIS 1

	AWCA	TENURE	AGE	SIZE	BIG 4	CFO	FSWITCH	LEV	LOSS
AWCA	1,000								
TENURE	- 0,100 0,070	1,000							
AGE	-0,121 0,028	0,174 0,001	1,000						
SIZE	-0,232 0,000	0,072 0,194	0,355 0,000	1,000					
BIG 4	-0,084 0,127	0,027 0,624	0,271 0,000	0,499 0,000	1,000				
CFO	-0,041 0,455	0,023 0,678	0,200 0,000	0,439 0,000	0,141 0,010	1,000			
FSWITCH	0,029 0,603	-0,251 0,000	0,001 0,986	-0,102 0,064	-0,132 0,016	-0,002 0,973	1,000		
LEV	-0,147 0,008	-0,024 0,666	0,144 0,009	0,663 0,000	0,450 0,000	0,309 0,000	-0,025 0,648	1,000	
LOSS	0,185 0,001	-0,043 0,439	-0,254 0,000	-0,541 0,000	-0,336 0,000	-0,469 0,000	0,037 0,507	-0,480 0,000	1,000

The effect of the variable LYFY on average AWCA is presented in Figure 2. If audit quality is lower the year after the audit partner switch than the year before the switch, then average AWCA are expected to be larger in the year after the audit partner switch. Results in Figure 2 suggest that the variable LYFY has a positive effect on average AWCA. That is, average AWCA are higher when the audit partner is in the first year of the new mandate, consistent with the notion that the delivered audit quality is lower the year after the audit partner switch than the year before the switch.

Figure 2 – Relation between LYFY and average AWCA



While results in Figure 2 suggest that the delivered audit quality is lower the year after the audit partner switch than the year before the switch, an independent samples t-test indicates that the mean difference in

average AWCA is not significant. This result is inconsistent with expectation, since the mean difference in average AWCA was expected to be significant. More information with regard to the independent samples t-test and the significance of the mean difference in average AWCA is added in the appendix.

Table 4 presents descriptive statistics on all variables included in model (2). The mean of the variable AWCA equals 0.062. The companies have been listed on the Australian Stock Exchange (ASX) on average 2.80 years. The mean of the variable SIZE is 14.95. The Big 4 audit firms audit about 83 percent of the sample observations. The mean of the variable CFO is 0.010. An audit firm switch applies to 6 percent of the sample observations and about 30 percent of the sample observations are in the mining industry. The mean of the variable LEV is 0.417. About 29 percent of the sample observations reported a loss for the previous year.

Table 4 – Descriptive statistics HYPOTHESIS 2 (N = 108)

Variable	Mean	Median	Standard deviation	Minimum	Maximum
AWCA	0,062	0,026	0,097	0,000	0,658
LYFY	0,500	0,500	0,502	0,000	1,000
AGE	2,800	2,740	0,625	1,609	3,912
SIZE	14,945	14,961	2,578	9,272	19,094
BIG 4	0,830	1,000	0,374	0,000	1,000
CFO	0,010	0,063	0,292	-1,778	0,534
FSWITCH	0,060	0,000	0,247	0,000	1,000
MINING	0,300	0,000	0,459	0,000	1,000
LEV	0,417	0,462	0,214	0,003	0,798
LOSS	0,290	0,000	0,454	0,000	1,000

In addition to the descriptive statistics presented in Table 4, the Pearson correlations among the variables included in model (2) are presented in Table 5. No significant correlation between the variable LYFY and absolute amounts of AWCA is found. This result is inconsistent with expectation, since the variable LYFY and absolute amounts of AWCA were expected to be positively correlated. Among the control variables included in the model, the variable SIZE is negatively correlated with absolute amounts of AWCA. In contrast, the variables FSWITCH and LOSS are positively correlated with absolute amounts of AWCA. No significant correlation between the variables AGE, BIG 4, CFO, MINING and LEV with absolute amounts of AWCA is found. Most correlations among independent variables have an absolute coefficient of less than 0.70. However, the variables SIZE and LEV are highly correlated. The correlation coefficient between the variables SIZE and LEV is 0.7284.

The high correlation between the variables SIZE and LEV is consistent with prior empirical studies that indicate a strong positive relation between firm size and leverage (Graham, Lemmon, & Schallheim, 1998; Fama & French, 2002; Rajan & Zingales, 1995). Large firms are more likely to be debt financed than smaller firms (Graham et al., 1998). Therefore, the variables SIZE and LEV are positively correlated. Suggested explanations for the positive relationship between firm size and leverage include: large firms tend to be more diversified, have more stable cash flows, are more transparent and have lower asset volatility (Byoun, 2007; Graham et al., 1998).

Table 5 – Pearson correlation matrix HYPOTHESIS 2

	AWCA	LYFY	AGE	SIZE	BIG 4	CFO	FSWITCH	MINING	LEV	LOSS
AWCA	1,000									
LYFY	0,111	1,000								
	0,252									
AGE	-0,099	0,058	1,000							
	0,307	0,549								
SIZE	-0,256	0,027	0,273	1,000						
	0,007	0,782	0,004							
BIG 4	-0,147	0,050	0,256	0,427	1,000					
	0,130	0,610	0,007	0,000						
CFO	-0,048	-0,045	0,271	0,486	0,162	1,000				
	0,619	0,645	0,005	0,000	0,095					
FSWITCH	0,211	0,188	0,002	-0,183	-0,185	-0,120	1,000			
	0,028	0,051	0,983	0,057	0,055	0,217				
MINING	0,088	0,000	0,010	-0,341	-0,526	-0,114	0,159	1,000		
	0,367	1,000	0,913	0,000	0,000	0,240	0,101			
LEV	-0,088	0,032	0,055	0,728	0,455	0,331	-0,193	-0,515	1,000	
	0,366	0,742	0,574	0,000	0,00	0,000	0,045	0,000		
LOSS	0,217	0,020	-0,200	-0,544	-0,375	-0,501	0,082	0,485	-0,561	1,000
	0,024	0,833	0,038	0,000	0,000	0,00	0,397	0,000	0,000	

Multivariate analysis

This section presents regression results with regard to model (1) and model (2). It is important to note that OLS standard errors can be biased, since the residuals may be correlated across firms or across time. Therefore, in order to improve the efficiency of the estimates, standard errors are adjusted for possible dependence in the residuals. In order to account for this possible dependence in the residuals, standard errors are clustered (Petersen, 2009).

The regression results of estimating model (1) are presented in Table 6. The P-value of the F-statistic is 0.0076, indicating that model (1) is significant. The amount of explained variation in absolute amounts of abnormal working capital accruals (R^2) equals 10 percent.

Of primary interest is the sign of the coefficient for TENURE. The results reveal that the coefficient for TENURE is negative and not significant, suggesting that there is no relation between audit partner tenure and the level of abnormal working capital accruals. This result is consistent with Cameran et al. (2008) and Carey and Simnett (2006). However, this result is inconsistent with HYPOTHESIS 1, suggesting audit quality increases within the limited audit partner tenure period. The coefficient for the variable SIZE is negative and significant, consistent with the notion that accruals for larger companies are less extreme. The coefficients for the variables CFO and MINING are positive and significant, suggesting a positive relation between accruals and cash from operations. This result is inconsistent with prior research suggesting that accruals and cash flows are negatively correlated on average. The variables AGE, BIG 4, FSWITCH, LEV and LOSS are not significant, suggesting that audit quality as measured by absolute amounts of AWCA is not associated with these variables.

Table 6 – Regression results HYPOTHESIS 1 (N = 330)

Variable	Expected Sign	Coefficient	t-value	Significance
Constant		0,188	3,89	0,000**
TENURE	-	-0,007	-1,37	0,176
AGE	-	-0,009	-1,46	0,148
SIZE	-	-0,008	-2,77	0,007**
BIG 4	-	0,022	1,33	0,189
CFO	-	0,037	1,83	0,072*
FSWITCH	+	-0,003	-0,14	0,888
MINING		0,022	1,73	0,089*
LEV	+	0,013	0,41	0,684
LOSS	+	0,018	0,94	0,352

Dummy variables that represent calendar year are included.

**, ** significant at the 10 percent and 5 percent levels, respectively.*

Table 7 presents the regression results of estimating model (2). The model to test HYPOTHESIS 2 is not significant, since the P-value of the F-statistic is 0.1374. The amount of explained variation in absolute amounts of abnormal working capital accruals (R^2) is 19 percent.

The sign of the coefficient for LYFY is of primary concern in model (2). Table 7 reveals that the coefficient for LYFY is positive but not significant, suggesting no relation between the variable LYFY and the level of abnormal working capital accruals. This result is inconsistent with HYPOTHESIS 2, suggesting delivered audit quality is lower the year after the audit partner switch than the year before the switch. The coefficient for the variable SIZE is negative and significant, consistent with the notion that abnormal accruals are less extreme for larger companies. The variables AGE, CFO, FSWITCH, LEV, LOSS and MINING are not significant, suggesting that audit quality as measured by absolute amounts of AWCA is not associated with these variables. Furthermore, results suggest that audit quality as measured by absolute amounts of AWCA is not associated with the variable BIG 4. The variable BIG 4 is not significant, consistent with Carey and Simnett (2006). The fact that the variable BIG 4 is not significant may be caused by the small number of observations.

Table 7 – Regression results HYPOTHESIS 2 (N = 108)

Variable	Expected Sign	Coefficient	t-value	Significance
Constant		0,210	2,52	0,015**
LYFY	+	0,025	1,21	0,231
AGE	-	0,002	0,11	0,913
SIZE	-	-0,016	-2,05	0,045**
BIG 4	-	-0,011	-0,25	0,807
CFO	-	0,074	1,41	0,164
FSWITCH	+	0,069	1,11	0,271
MINING		-0,014	-0,45	0,654
LEV	+	0,153	1,37	0,176
LOSS	+	0,063	1,48	0,146

Dummy variables that represent calendar year are included.

**, ** significant at the 10 percent and 5 percent levels, respectively.*

The Pearson correlation matrix presented in Table 4 shows the variables SIZE and LEV are highly correlated (0.7284). As this high correlation is a sign of sizeable multicollinearity, the variable LEV is deleted from the model and the model is re-estimated. The regression results of re-estimating model (2), excluding the variable LEV, are presented in Table 8. After re-estimating the model, the model is marginally significant. The P-value of the F-statistic has improved to 0.0940.

Results in Table 8 reveal that the coefficient for the variable LYFY is positive but not significant, suggesting that there is no relation between the variable LYFY and the level of abnormal working capital accruals. This result is inconsistent with HYPOTHESIS 2, suggesting delivered audit quality is lower the year after the audit partner switch than the year before the switch. The coefficient for the variable SIZE is negative and significant,

consistent with the notion that abnormal accruals are less extreme for larger companies. The variables AGE, BIG 4, CFO, FSWITCH, MINING and LOSS are not significant. Therefore, results indicate that audit quality as measured by absolute amounts of AWCA is not associated with these variables.

Table 8 – Regression results HYPOTHESIS 2, LEV excluded (N = 108)

Variable	Expected Sign	Coefficient	t-value	Significance
Constant		0,167	2,51	0,015**
LYFY	+	0,026	1,22	0,227
AGE	-	-0,005	-0,31	0,759
SIZE	-	-0,009	-2,05	0,045**
BIG 4	-	-0,003	-0,06	0,954
CFO	-	0,070	1,33	0,189
FSWITCH	+	0,069	1,15	0,253
MINING		-0,028	-0,89	0,377
LOSS	+	0,052	1,42	0,163

Dummy variables that represent calendar year are included.

**, ** significant at the 10 percent and 5 percent levels, respectively.*

To summarize, regression results indicate that there is no relation between audit partner tenure and audit quality as measured by absolute amounts of AWCA. The results therefore do not suggest audit quality increases within the limited audit partner tenure period. With regard to HYPOTHESIS 2, the suggested model is not significant. After re-estimating the model, regression results suggest there is no relation between LYFY and the level of abnormal working capital accruals. Therefore, results do not find delivered audit quality to be lower the year after the audit partner switch than the year before the switch.

V. Conclusion

In order to address concerns about audit quality, mandatory rotation is one of the main policy initiatives that has been implemented (Carey & Simnett, 2006). Mandatory rotation can occur either at the firm or at the partner level. Mandatory audit firm rotation has been implemented in a small number of countries, whereas mandatory audit partner rotation has recently been implemented in many jurisdictions around the world (Cameran et al., 2005; Chen et al., 2008; Chi et al., 2009).

The relationship between audit firm tenure and audit quality is examined in several studies. Since in most countries audit partners are not mentioned in audit reports (Chen et al., 2008), few studies examine the relation between audit partner tenure and audit quality. Another reason for the lack of research on this topic is the recent implementation of mandatory audit partner rotation, since in most countries audit partner rotation became mandatory in the early twentieth century.

Using data from Australia, this study investigates the effect of mandatory audit partner rotation on audit quality. Unlike in most countries, audit partner information is publicly disclosed on the audit report of listed Australian companies. Since the 1970s, the audit partner of listed Australian companies is required to sign the audit report both in their own name and in the name of the audit firm (Carey & Simnett, 2006). The sample period starts from 2001, since before that date there was no statutory requirement to rotate the audit partner. It is examined whether audit quality increases within the limited audit partner tenure period of five years and whether the delivered audit quality is lower the year after the audit partner switch than the year before the switch, controlling for changes in audit firm.

Using the measure of abnormal working capital accruals (AWCA) as developed by DeFond and Park (2001) to proxy for audit quality, no evidence of an association between audit partner tenure and audit quality is found. This result is inconsistent with the notion that audit quality increases within the limited audit partner tenure period. Furthermore, results do not provide significant evidence that the delivered audit quality is lower the year after the audit partner switch than the year before the switch.

This study provides useful evidence for legislators, regulators and other professional bodies regarding the effectiveness of mandatory audit partner rotation as a means of improving audit partner tenure. Furthermore, this study provides evidence at the audit partner level and the results of this study are relevant to expand the knowledge on mandatory audit partner rotation. In contrast to previous studies, the direct effect of mandatory audit partner rotation on audit quality is examined. Extant literature examined the relation between audit partner tenure and audit quality in a period before audit partner rotation was mandatory. The results of extant literature cannot be generalized to a regime in which audit partner rotation

is mandatory, since auditor incentives under a regime of mandatory audit partner rotation may differ (Carey & Simnett, 2006; Johnson, Khurana, & Reynolds, 2002).

Limitation of this study is the sample size, which is quite small. Unfortunately, it is not possible to obtain a larger sample. Audit partner information is not available in databases. Therefore, audit partner data are hand collected from annual reports. Australian databases cannot be accessed, therefore annual reports are obtained from websites. Several companies cannot be found in the Compustat database, of which financial information is hand collected from annual reports. By means of manual data collection the sample size is as large as possible. However, the sample size may be too small to produce reliable empirical conclusions. Furthermore, due to the small sample size, income-increasing and income-decreasing abnormal working capital accruals cannot be analyzed separately (Carey & Simnett, 2006; Myers et al., 2003). Another limitation of this study is the manual collection of data.

The results of this study need to be interpreted with caution. Notable differences are present in institutional backgrounds and auditing regimes across various jurisdictions. This study investigates mandatory audit partner rotation in Australia, where the legal environment that auditors face is different from the legal environment in other countries. Therefore, the results of this study may not be generalizable to other countries. An interesting area for future research would be to determine if the results of this study are observed in other countries, such as the United States, the United Kingdom, the Netherlands, Germany, Singapore, France, Spain, Japan or Taiwan. Also, this study uses the measure of abnormal working capital accruals (AWCA) as developed by DeFond and Park (2001) to proxy for audit quality. Future research can use alternative proxies for audit quality, such as the Modified Jones model (Dechow et al., 1995), the issuance of going-concern opinions or the incidence of financial statement restatements to examine the effect of mandatory audit partner rotation on audit quality (Chi et al., 2009).

Literature list

Accounting Professional and Ethical Standards Board (APESB). APES 110 Code of Ethics for Professional Accountants. Retrieved from: http://www.ceo.wa.edu.au/home/carey.peter/Accounting_and_Finance/APES_110.pdf.

Anthony, J.H., & Ramesh, K. (1992). Association between accounting performance measures and stock prices: A test of the life cycle hypothesis. *Journal of Accounting and Economics, 15*, 203 – 227.

Arruñada, B., & Paz-Ares, C. (1997). Mandatory Rotation of Company Auditors: A Critical Examination. *International Review of Law and Economics*, 31 – 61.

Ashbaugh, H., LaFond, R., & Mayhew, B.W. (2003). Do nonaudit services compromise auditor independence? Further evidence. *The Accounting Review, 78*, 611 – 640.

Australian Government Financial Reporting Council (FRC). Auditor independence in Australia. Retrieved from: http://www.frc.gov.au/reports/2005_2006_aair/frc_air_2005_2006-05.asp#P209_20456

Barth, M.E., Cram, D.P., & Nelson, K.K. (2001). Accruals and the prediction of future cash flows. *The Accounting Review, 76*, 27 – 58.

Bartov, E., Gul, F.A., & Tsui, J.S.L. (2001). Discretionary-accruals models and audit qualifications. *Journal of Accounting and Economics, 30*, 421 – 452.

Becker, C.L., DeFond, M.L., Jiambalvo, J., & Subramanyam, K.R. (1998). The effect of audit quality on earnings management. *Contemporary Accounting Research, 15*, 1 – 24.

Butterworth, S., & Houghton, K.A. (1995). Auditor switching: the pricing of audit services. *Journal of Business Finance and Accounting 22*(3), 323 – 344.

Byoun, S. (2007). Financial Flexibility, Leverage and Firm Size. Retrieved from: http://finance.baylor.edu/seminars/papers/flexibility_fma200702.pdf

Cameran, M., Di Vincenzo, D., Merlotti, E. (2005). The Audit Firm Rotation Rule: A Review of the Literature. Working paper, retrieved from the Social Science Research Network website: http://papers.ssrn.com/sol3/papers.cfm?abstract_id=825404

Cameran, M., Prencipe, A., & Trombetta, M. (2008). Auditor Tenure and Auditor Change: Does Mandatory Auditor Rotation Really Improve Audit Quality? Working paper retrieved from the Maastricht University website: http://www.fdewb.unimaas.nl/ISAR2009/02_24_Cameran_Prencipe_Trombetta.pdf

Carcello, J. V., & Nagy, A. L. (2004). Audit firm tenure and fraudulent financial reporting. *Auditing: A Journal of Practice and Theory, 23*(2), 55 – 69.

Carey, P., & Simnett, R. (2006). Audit Partner Tenure and Audit Quality. *The Accounting Review, 81*(3), 653 – 676.

Catanach Jr., A.H., & Walker, P.L. (1999). The International Debate Over Mandatory Auditor Rotation: A Conceptual Research Framework. *Journal of International Accounting, Auditing & Taxation*, 43 – 66.

Chen, C., Lin, C., & Lin, Y. (2008). Audit Partner Tenure, Audit Firm Tenure, and Discretionary Accruals: Does Long Auditor Tenure Impair Earnings Quality? *Contemporary Accounting Research, 25*(2), 415 – 445.

Chi, W., & Huang, H. (2005). Discretionary accruals, audit-firm tenure and audit-partner tenure: Empirical evidence from Taiwan. *Journal of Contemporary Accounting and Economics, 1*(June), 65 – 92.

Chi, W., Huang, H., Liao, Y., & Xie, H. (2009). Mandatory Audit Partner Rotation, Audit Quality, and Market Perception: Evidence from Taiwan. *Contemporary Accounting Research, 26*(2), 359 – 391.

Chung, H. (2004). Selective Mandatory Auditor Rotation and Audit Quality: An Empirical Investigation of Auditor Designation Policy in Korea. Working paper retrieved from the Purdue University website: https://www.krannert.purdue.edu/events/bkd_speakers/papers/chung.pdf

Congress of the United States of America. Sarbanes Oxley Act 2002. Retrieved from: http://fl1.findlaw.com/news.findlaw.com/cnn/docs/gwbush/sarbanesoxley072302.pdf

Corporations Act 2001. Retrieved from: http://www.austlii.edu.au/au/legis/cth/consol_act/ca2001172/

Davis, L. R., Soo, B., & Trompeter, G. (2003). Auditor tenure, auditor independence and earnings management. Working paper, retrieved from the American Accounting Association website: https://aaahq.org/audit/midyear/01midyear/papers/soo.pdf

Davis, L.R., Soo, B., & Trompeter, G. (2009). Auditor Tenure and the Ability to Meet or Beat Earnings Forecasts. *Contemporary Accounting Research, 26*(2), 517 – 548.

DeAngelo, L.E. (1981). Auditor Independence, 'Low Balling', and Disclosure Regulation. *Journal of Accounting and Economics, 3*(August), 113 – 127.

Dechow, P.M. (1994). Accounting earnings and cash flows as measures of firm performance: The role of accounting accruals. *Journal of Accounting and Economics, 18*, 3 – 42.

Dechow, P.M., & Dichev, I.D. (2001). The quality of accruals and earnings: The role of accrual estimation errors. Working paper, retrieved from the Social Science Research Network website: http://papers.ssrn.com/sol3/papers.cfm?abstract_id=277231

Dechow, P.M., Richardson, S.A., & Tuna A.I. (2001). Are benchmark beaters doing anything wrong? Working Paper, retrieved from the Social Science Research Network website: http://papers.ssrn.com/sol3/papers.cfm?abstract_id=222552

Dechow, P., Sloan, R., & Sweeney, A. (1995). Detecting earnings management. *The Accounting Review, 70*(2), 193 – 225.

DeFond, M.L., & Park, C.W. (2001). The Reversal of Abnormal Accruals and the Market Valuation of Earnings Suprises. *The Accounting Review, 76*(3), 375 – 404.

DeFond, M.L., & Subramanyam, K.R. (1998). Auditor changes and discretionary accruals. *Journal of Accounting and Economics, 25*, 35 – 67.

Deis, D., Jr., & Giroux, G. (1992). Determinants of audit quality in the public sector. *The Accounting Review, 67*, 462 – 479.

Dopuch, N., King, R., & Schwartz, R. (2001). An Experimental Investigation of Retention and Rotation Requirements. *Journal of Accounting Research, 39*(1), 93 – 117.

Elder, R.J., Beasley, M.S., & Arens, A.A. (2010). *Auditing and Assurance Services*. Ney Jersey, NJ: Pearson.

Fama, E. F., & French, K. R. (2002). Testing trade-off and pecking order predictions about dividends and debt. *The Review of Financial Studies 15*(1), 1 – 33.

Firth, M., Rui, O., & Wu, X. (2011). How do Various Forms of Auditor Rotation Affect Audit Quality? Evidence from China. Working paper, retrieved from the Social Science Research Network website: http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1830741

Geiger, M. A., & Raghunandan, K. (2002). Audit tenure and audit reporting failures. *Auditing: A Journal of Practice and Theory, 21*(1), 67 – 78.

Graham, J.R., Lemmon, M.L., & Schallheim, J.S. (1998). Debt, Leases, Taxes, and the Endogeneity of Corporate Tax Status. *The Journal of Finance, 53*(1), 131 – 162.

Guay, W.R., Kothari, S.P., & Watts, R.L. (1996). A Market-Based Evaluation of Discretionary Accrual Models. *Journal of Accounting Research, 34*, 83 – 105.

Hamilton, J., Ruddock, C., Stokes, D., & Taylor, S. (2005). Audit Partner Rotation, Earnings Quality and Earnings Conservatism. Working Paper, retrieved from the Social Science Research Network Website: http://papers.ssrn.com/sol3/papers.cfm?abstract_id=740846

International Federation of Accountants (IFAC). Code of Ethics for Professional Accountants. Retrieved from: http://www.nba.nl/Documents/Onafhankelijkheid/Code_of_Ethics_januari-2011.pdf

Jackson, A., Moldrich, M. & Roebuck, P. (2007). Mandatory audit firm rotation and audit quality. Working paper, retrieved from the Social Science Research Network website: http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1000076

Johnson, V., Khurana, I., & Reynolds, J. (2002). Audit-Firm Tenure and the Quality of Financial Reports. *Contemporary Accounting Research, 19*(4), 637 – 660.

Kim, J.B., & Yi, H. (2009). Does auditor designation by the regulatory authority improve audit quality? Evidence from Korea. *Elsevier, 28*, 207 – 230.

Knechel, W.R., & Vanstraelen, A. (2007). The Relationship between Auditor Tenure and Audit Quality Implied By Going Concern Opinions. *Auditing: A Journal of Practice and Theory, 26*(1), 113 – 131.

Myers, J., Myers, L.A., & Omer, T.C. (2003). Exploring the Term of the Auditor-Client Relationship and the Quality of Earnings: A Case for Mandatory Audit Partner Rotation? *The Accounting Review, 78*(July), 779 – 799.

Myers, J. N., Myers, L. A., Palmrose, Z. V., & Scholz, S. W. (2003). Mandatory auditor rotation: Evidence from restatements. Working paper, retrieved from the American Accounting Association website: http://aaahq.org/audit/midyear/04midyear/papers/Myers.pdf

Petersen, M.A. (2009). Estimating Standard Errors in Finance Panel Data Sets. *The Review of Financial Studies, 22*(1), 435 – 480.

Raiborn, C., Schorg, C.A., & Massoud, M. (2006). Should auditor rotation be mandatory? *The Journal of Corporate Accounting & Finance*, 37 – 49.

Rajan, R.G., & Zingales, L. (1995). What do we know about capital structure? Some evidence from international data. *The Journal of Finance, 50*(5), 1421–1460.

Rogers, W. (1993). Regression Standard Errors in Clustered Samples. *Stata Technical Bulletin, 13*(May), 19 – 23.

Ruiz-Barbadillo, E., Gómez-Aguilar, N., & Carrera, N. (2009). Does Mandatory Audit Firm Rotation Enhance Auditor Independence? Evidence from Spain. *Auditing: A Journal of Practice and Theory, 28*(1), 113 – 135.

Sloan, R. (1996). Do stock prices fully reflect information in accruals and cash flows about future earnings? *The Accounting Review, 71*(3), 289 – 315.

Vanstraelen, A. (2000). Impact of renewable long-term audit mandates on audit quality. *The European Accounting Review, 9*(3), 419 – 442.

Appendices

Appendix 1 - Mandatory audit partner rotation in Australia

In Australia, audit partner rotation is required by law since 2001. Audit partner rotation for listed companies is considered in the Corporations Act. Division 5 of part 2M.4 of the Corporations Act sets out the requirements that have to be satisfied with regard to auditor rotation for listed companies. There is a limited term for eligibility to play a significant role in the audit of listed companies. With regard to this limited term the Corporations Act states the following:

> If an individual plays a significant role in the audit of a listed company or listed registered scheme for five successive financial years (the extended audit involvement period), the individual is not eligible to play a significant role in the audit of the company or the scheme for a later financial year (the subsequent financial year) unless:
>
> a) the individual has not played a significant role in the audit of the company or the scheme for at least two successive financial years (the intervening financial years); and
> b) the intervening financial years:
> i. commence after the end of the extended audit involvement period; and
> ii. end before the beginning of the subsequent financial year.

In addition to the Corporations Act, audit partner rotation for listed companies was considered in Professional Statement F1 *Professional Independence*. In July 2006, Professional Statement F1 is replaced by Section 290 of APES 110 Code of Ethics for Professional Accountants, issued by the Australian Accounting Professional and Ethical Standards Board. The Code of Ethics for Professional Accountants states that:

> a) the lead engagement partner, the audit review partner (if any) and the engagement quality control reviewer should be rotated after serving in any of these capacities, or in a combination thereof, for a pre-defined period, no longer than five financial years within a seven year period; and
> b) such an individual rotating after a pre-defined period should not participate in the audit engagement until a further period of time, no less than two years, since the end of the financial year following the end of the pre-defined period has elapsed.

To summarize, audit partners in Australia are required to rotate once every five years and the rotating partner should not resume the audit until a period of at least two successive financial years has passed.

Appendix 2

Independent samples t-test HYPOTHESIS 1 (N = 66)

TENURE	AWCA TENURE t	AWCA TENURE t + 1	t-statistic
t = 1	0,063	0,076	-0,774
t = 2	0,076	0,056	1,117
t = 3	0,056	0,047	0,710
t = 4	0,047	0,049	-0,196

Appendix 3

Independent samples t-test HYPOTHESIS 2 (N = 54)

	LYFY = 0	LYFY = 1	t-statistic
AWCA	0,0516	0,073	-1,151