AAR
AUSTRALIAN ACCOUNTING REVIEW
CPA AUSTRALIA

Does Audit Committee Busyness Affect Financial Restatement? Evidence from Audit Committee Share Ownership

Md. Borhan Uddin Bhuiyan, *School of Accountancy, Massey University, Auckland, New Zealand*

Solomon Opare, *School of Accountancy, Massey University, Auckland, New Zealand*

Zahir Ahmed, *Department of Accounting, Auckland University of Technology, Auckland, New Zealand*

We examine the association between audit committee (AC) busyness and financial restatement and determine whether AC share ownership moderates this relationship. Using logit regression analysis, we test our hypotheses on a sample of 6408 firm-year observations from 2004 to 2015 for companies listed on the Australian Securities Exchange. The study reveals that firms with busy ACs engage more in financial restatements. We also find that AC share ownership reduces financial restatements and attenuates the association between AC busyness and financial restatement. Our results are robust to endogeneity concerns emanating from firms' deliberate decisions to grant shares to AC members. The findings of this research have several important policy implications. For instance, shareholders can benefit from AC members' monitoring ability by allowing for share ownership. Further, our findings suggest that principles-based corporate governance guidelines have a beneficial effect on financial reporting quality. While prior studies offer mixed evidence, our research contributes to the auditing literature by providing evidence that AC share ownership moderates the association between AC busyness and financial restatement.

This research examines the association between audit committee (AC) busyness and financial restatement and the moderating role of AC share ownership in Australia. Globally, AC has become vital in strengthening the corporate governance of publicly listed companies (Organisation for Economic Co-operation and Development 2021). AC busyness refers to the level of activity and workload shouldered by an AC member. De Vlaminck and Sarens (2015) recognise that AC members holding more than three external board memberships are considered to exhibit a higher degree of AC busyness. A firm with an effective AC is less likely to be sanctioned for fraud or aggressive accounting behaviour (Abbott et al. 2000) because the AC improves the firm's internal control management systems and financial information disclosures (Deslandes et al. 2020).

Prior literature has extensively examined the effects of busy directors (Harris and Shimizu 2004; Fich and Shivdasani 2007; Field et al. 2013; Méndez et al. 2015). However, the impact of AC busyness has received less attention despite its critical role in ensuring the quality of firms' financial reporting. Notably, existing research is inconclusive in this regard. For example, Ghafran et al. (2022) find that busy AC members may not have sufficient time for the effort required to verify the accuracy of financial statements. In addition, busy AC members may ignore certain strategic aspects while processing financial reporting. Such omissions can cause adverse effects on the firm because financial reporting plays an essential role in corporate planning, strategy and financing policy (Tanyi and Smith 2015; Bravo and Reguera-Alvarado 2019). Conversely, Hua et al. (2016) find that busy AC members overcome time constraints by drawing on their industry expertise and networking connections. This contradiction can be attributed to various factors that affect the association between AC busyness and financial reporting quality. Extant literature suggests that financial restatement, an important example of poor financial reporting quality, undermines the credibility of financial reporting and stands out as a robust and direct metric for assessing financial reporting quality. We explore one of the factors, AC share ownership, which affects the association between AC

Correspondence
Md. Borhan Uddin Bhuiyan, School of Accountancy, Massey University, Private Bag 102904, Auckland, New Zealand; email: m.b.u.bhuiyan@massey.ac.nz

Accepted for publication 4 January 2024.

busyness and financial restatements in the Australian context.

AC share ownership occurs when an AC member holds shares in the firm they oversee (Lin et al. 2006; Bhuiyan and Costa 2020). Offering share ownership to an AC can affect the adverse relationship between AC busyness and financial reporting quality. This is because, despite AC busyness, when AC members own shares, they become better monitors of the financial reporting process and potentially minimise agency problems (Karamanou and Vafeas 2005). This mechanism is consistent with the 'incentive alignment'[1] perspective. The corporate governance literature reveals that directors gain a sense of the firm's ownership when they own equity (Fama and Jensen 1983; Monks and Minow 2011), and this equity ownership provides monitoring incentives (Beasley 1996). In addition, AC members who own equity are motivated to avoid potential litigation exposure (Naiker and Sharma 2009; Naiker et al. 2013). Therefore, equity compensation may not affect AC independence because of the offsetting risks of potential litigation and reputation loss (Liu et al. 2021). Conversely, when an AC holds share options, the committee's effectiveness can diminish, and AC members' objectivity can be challenged. This view is consistent with the 'entrenchment effect'.[2] Researchers have found positive associations between equity compensation and earnings management (Bédard et al. 2004), financial restatement (Archambeault et al. 2008), beating analyst forecasts (Campbell et al. 2015) and waiving misstatements to avoid missing earnings forecasts (Keune and Johnstone 2015b). Using a sample of US firms, Yang and Krishnan (2005) report that firms engage in aggressive earnings management activities when AC members have share ownership.

Although corporate governance guidelines do not explicitly state whether AC members can own shares, it is implied that they should be independent and not have a substantial holding[3] in the firm they serve. This is because they are expected to be non-executive directors, with most being independent directors. Significant share ownership by AC members may compromise their independence because AC members have incentives to collude with managers to protect their investment at the expense of other shareholders (Mangena and Pike 2005). Bédard et al. (2004) report a negative relationship between AC share ownership and aggressive earnings management. Carcello and Neal (2003) find that the likelihood of auditor dismissal is higher in companies in which an AC member has greater share ownership. In the UK, evidence suggests that both interim disclosure and voluntary engagement of external auditors to review interim reports reduce when AC members have share ownership (Mangena and Pike 2005; Mangena and Tauringana 2008). Hence, AC members should have no direct or indirect material interest in transactions or arrangements with the firm. There is extensive corporate governance research on the Australian regulatory setting suggesting that AC members hold share ownership (Bhuiyan and D'Costa 2020; Habib et al. 2021a). Similarly, in the US, the National Association of Corporate Directors (2003) recommends that independent directors be compensated largely by equity to align their interests with shareholders. Although the Sarbanes-Oxley Act (SOX) made efforts to improve AC effectiveness and independence, there is no regulation regarding an appropriate compensation structure for ACs (Schrader and Sun 2019). Our research posits that AC share ownership can adversely affect a committee's independence and objectivity. It contributes to the literature by examining the moderating effect of AC share ownership on the association between AC busyness and financial restatement.

There are three primary reasons for evaluating our research topic in the context of the Australian regulatory system. First, the ASX Corporate Governance Council Corporate Governance Principles and Recommendations (2019), referred to as the ACG henceforth, constitutes a form of 'soft regulation' with which firms may either comply or justify their non-compliance. This principles-based approach to corporate governance allows Australian firms to establish ACs and provide members with share ownership. Further, because corporate governance guidelines are flexible, firms may utilise this discretion as a signalling strategy by issuing shares to AC members.

The ACG does not clearly establish a maximum permitted ownership level for AC members. In contrast, in the US, the listing standards of the National Association of Securities Dealers Automated Quotations (NASDAQ) specify that AC members cannot own more than 20% of the voting shares. The lack of a maximum cap on permissible ownership in Australia may incentivise AC members to emphasise short-term gains and maximise their personal gains.

Second, Principle 4 of the ACG suggests that for an effective discharge of its mandate, an AC should be of sufficient size (at least three members) and be independent (i.e., all members should be non-executive directors, with the majority of them being independent directors), and its members should have sufficient accounting and financial expertise and an understanding of the industry in which the entity operates.[4] Although compliance with AC composition requirements has increased over the years, the required guidelines do not recommend an optimal workload at the board or subcommittee levels regarding interlocking and outside directorial positions. Empirical research has shown that the recommended qualities of AC members may contribute little value if members remain overcommitted with multiple

directorships and do not have sufficient time to effectively monitor and oversee the financial reporting process (Jiraporn et al. 2009; Ahn et al. 2010).

Finally, the academic literature on AC busyness pertains predominantly to the US, and the results are mixed. For example, Sharma and Iselin (2012) state that multiple directorships of AC members are positively correlated with financial restatements. In contrast, Tanyi and Smith (2015) argue that an AC's monitoring role is affected by the busyness of the AC chair and by financial expertise rather than AC members' busyness. Méndez et al. (2015), although not referring to the AC specifically, report that over-commitment problems are more severe for Australian listed firms. Given the limited regulatory guidance on AC composition (regarding busyness and share ownership) in the Australian context, the empirical question remains: do AC busyness and AC share ownership affect financial restatements? Our study responds to the call for more research on the interaction between AC busyness and AC share ownership (DeFond and Zhang 2014; Goodwin and Wu 2016; Liu et al. 2021). Thus, differences in financial reporting standards, AC members' incentives and regulatory enforcement make Australia an interesting setting for our study.

Using a sample of companies listed in Australia from 2004–2015, we find that AC busyness increases financial restatement. This finding contrasts with the Australian study by Sultana et al. (2019), who find that AC members with multiple directorships are positively associated with financial reporting quality. They also find that firms granting share ownership to AC members are less likely to engage in financial restatement. Finally, we find that AC share ownership mitigates the association between AC busyness and financial restatement.

This study contributes to the existing literature in several ways. First, it extends an emerging line of research by examining the association between AC busyness and financial restatement. Prior studies, such as Tanyi and Smith (2015) and Sharma and Iselin (2012), report mixed evidence identifying AC busyness as a determinant of financial restatement. However, our study provides further insights into the relationship between AC busyness and financial restatement, suggesting that AC share ownership acts as an incentive alignment between AC members and shareholders and mitigates the positive association between AC busyness and financial restatement. Second, this study uses a sample of ASX-listed companies to contribute further to the effect of share ownership on the effectiveness of ACs in reducing financial restatements. Finally, this study has practical implications for investors and regulators by providing additional insights into the effects of the AC compensation structure on the committee's effectiveness. Specifically, our findings align with the argument that equity compensation reduces financial restatement, indicating an improvement in financial reporting quality. Our findings can help determine whether any reforms are needed in the Australian corporate governance environment regarding the number of directorships AC members can have and the percentage of share ownership for each member.

Literature Review and Hypothesis

According to agency cost theory, managers may engage in actions that benefit themselves while causing harm to shareholder value because of the misalignment of their interests with those of shareholders (Jensen and Meckling 1976). To address this issue, ACs, as the subcommittees of boards, play a crucial role in ensuring high-quality financial reporting. AC membership is determined by the chair and board members rather than being directly appointed by shareholders. AC members oversee firms' financial reporting and auditing matters (Habib et al. 2021a). From an agency theory perspective, ACs composed of independent directors increase the objectivity, truthfulness and fairness of the firm's financial reports (Jensen and Meckling 1976). Several studies have suggested that an AC is a safeguard for sound financial reporting governance because it plays a vital role in monitoring and controlling the accuracy of the information contained in financial reports (Rezaee et al. 2003; Sil Kang et al. 2011; Ghafran and O'Sullivan 2013). A well-functioning AC can facilitate quality financial reporting by implementing appropriate structures, such as independence, expertise, activity level, tenure, size and the exclusion of CEOs and outside directors (BRC 1999; Baxter and Cotter 2009; Zalata and Roberts 2016; Neville et al. 2019; Alzeban 2020).

ACs that meet regularly and have sufficient time to carry out their activities are more likely to be in a better position to monitor and ensure quality financial reports (Menon and Williams 1994; Vafeas 1999; Xie et al. 2003). Baxter and Cotter (2009) show that the frequency of AC meetings correlates positively with the quality of financial reporting, whereas Menon and Williams (1994) find that more active and independent ACs are associated with higher-quality financial reports. In addition, ACs that include members with varying types of audit expertise, such as accounting and financial management, can help share responsibilities to improve the quality of financial reports (Xie et al. 2003; Krishnan et al. 2011; Safari Gerayli et al. 2021). For example, Xie et al. (2003) report that the presence of AC members with corporate or investment banking backgrounds is negatively related to the level of earnings management. Research also shows that AC members with financial literacy contribute to ACs' effectiveness (DeZoort 1998; McDaniel et al. 2002; Xie et al. 2003; Bédard et al. 2004; Rose and Rose 2008; Hambrick et al.

2015). Safari Gerayli et al. (2021) and Bédard et al. (2004) find that ACs' financial expertise is positively associated with the quality of financial reports. Sophisticated financial expertise can enable members to detect errors and inconsistencies in financial information produced by management and, consequently, ensure good-quality financial information.

Although general business experience can be helpful, specialised skills, knowledge and experience possessed by AC members are crucial in ensuring high-quality financial reporting (e.g., McDaniel et al. 2002). According to Krishnamoorthy et al. (2002), financial literacy, expertise, independence and commitment are important attributes of AC members. These attributes enable AC members to be more effective in identifying misstatements and ensuring quality financial reporting. Wu et al. (2018) find that ACs consist of not only financial and accounting experts but also members with executive backgrounds and industry expertise and explain that those with financial and accounting expertise tend to follow financial and regulatory requirements while others define their roles based on their duties as directors. In addition, Hambrick et al. (2015) posit that ACs' capacity to actively oversee corporate operations – referred to as 'bandwidth' – is critical for effective governance. This bandwidth includes the necessary time, attention and energy that directors must devote to their roles. However, if AC members take on multiple directorships and become overcommitted, their valuable attributes may prove insufficient for overseeing and monitoring the financial reporting process effectively (Jiraporn et al. 2009; Ahn et al. 2010; Habib and Bhuiyan 2016).

AC busyness and financial restatement

The literature recognises that holding multiple directorships can contribute to AC busyness (Mizruchi 1996). Some research finds that AC members with multiple directorships are more likely to prevent financial reporting errors and improve financial reporting quality because of their greater monitoring expertise and experience (Cullinan et al. 2010). Further, busy AC members can leverage their outside expertise and experience to contribute to effective internal control (Hua et al. 2016; Tham et al. 2019). In contrast, other studies suggest that multiple directorships may impair AC effectiveness (Song and Windram 2004; Sharma and Iselin 2012; Sun et al. 2014). AC busyness can impair members' ability to devote adequate time and attention to their roles, which can increase the likelihood of financial report restatements for these firms (Méndez et al. 2015; Tanyi and Smith 2015; Ghafran et al. 2022).

Tanyi and Smith (2015) find that firms' financial reporting quality deteriorates when their AC chairpersons and financial expert members are busy. They oppose the additional directorships accepted by AC members because, with the level of their responsibility, any additional directorships could inhibit them from performing their stipulated tasks. According to Sharma and Iselin (2012), independent AC members with multiple directorships may be stretched too thin, leading to weaker monitoring of financial reporting and more financial misstatements. In addition, Sun et al. (2014) find that AC members with multiple directorships are associated with more real earnings management (REM), suggesting that busyness can impair AC members' monitoring effectiveness. Similarly, other studies suggest that AC busyness may lead to weaker corporate governance (Okazaki et al. 2005; Sarkar et al. 2008) and poorer board monitoring quality (Gul et al. 2017), leading to greater earnings management (Sun et al. 2014) and more financial restatements (Sharma and Iselin 2012). Sharma et al. (2020) state that multiple directors improve financial reporting up to a certain point, but beyond that point, investors become concerned because multiple memberships may undermine directors' ability to discharge their governance responsibilities effectively.

The literature also finds that AC members serving on multiple committees signal high-quality AC governance and an effective financial reporting monitoring process to investors. In the context of Belgium, De Vlaminck and Sarens (2015) find a positive association between AC members' busyness and financial reporting quality, indicating that AC members holding multiple directorships are concurrently associated with better financial reporting quality. In the Australian setting, Sultana et al. (2019) find that AC members with multiple directorships are associated with lower discretionary accruals, suggesting that AC experience can contribute to better financial reporting quality. However, Méndez et al. (2015) find that in Australian firms, the increased busyness of AC members limits their effectiveness in implementing internal control mechanisms and their capacity to monitor managerial actions, thus lowering the quality of financial reports. In the UK context, Habbash et al. (2013) find that AC members with multiple holdings have no effect on financial reporting quality.

Although having outside directors with monitoring experience and expertise in AC can benefit firms, the potential negative effect of their busyness on effectiveness must also be considered. Given the conflicting arguments in the literature, it is difficult to precisely predict the relationship between AC busyness and financial restatement. Further, the evidence suggests that the uncertainty around AC busyness is experienced more broadly across jurisdictions. Therefore, we propose the following hypothesis:

H1: AC busyness has a significant relationship with financial restatement.

AC share ownership and financial restatement

Research suggests that the composition and structure of a firm's AC can significantly reduce the likelihood of a financial restatement. One potential factor is the level of AC member ownership. According to agency theory, directors' interest in holding a high proportion of firm shares tends to align with that of shareholders (Sharma et al. 2020). AC share ownership is a measure of the percentage of shares held by a firm's AC. It reflects the extent to which an AC is vested in the firm and is a key indicator of the degree of oversight provided by the AC. Studies show that a higher level of AC share ownership is associated with a decreased likelihood of financial restatement. Karamanou and Vafeas (2005) find that AC members who own a proportion of the firm are more likely to be diligent in their oversight of management activities and to encourage improvements in the financial reporting system. This can lead to higher-quality information disclosure and reduced financial statement fraud (Beasley et al. 2000). The research also suggests that ACs with a higher level of share ownership are more vigilant and effective in detecting and preventing financial misstatements. This effect may be because AC members with a greater stake in the firm have a greater incentive to be diligent in monitoring the firm's financials. Feng and Huang (2021) find that greater AC share ownership can restrain top managers' earnings manipulation behaviour in the case of firms with high quantile levels of earnings management. Liu and Yu (2018) find that the amount and portion of equity-based compensation to ACs are negatively associated with restatement for S&P 1500 firms but positively associated with restatement for non-S&P 1500 firms.

Although agency theory suggests that equity-based compensation aligns with the interests of directors and shareholders (Dalton et al. 2003; Hillman and Dalziel 2003; Hambrick et al. 2015), the extent of this alignment may differ for ACs, given their primary focus on financial reporting oversight and internal control systems (Magilke et al. 2009). Several studies demonstrate that ACs' share compensation is linked to various unfavourable outcomes, which include a higher likelihood of financial restatements (Archambeault et al. 2008), an increase in earnings management (Bédard et al. 2004), an increase in audit report lag (Bhuiyan and D'Costa 2020), biased reporting (Magilke et al. 2009), waiver of managers' misstatements (Keune and Johnstone 2015a), less monitoring of financial reporting (Engel et al. 2010) and internal control weakness (Cullinan et al. 2010).

The findings in the literature suggest that the relationship between AC share ownership and financial restatement may not be straightforward. On the one hand, AC share ownership could weaken monitoring, reduce AC members' objectivity and increase their potential to collude with management to protect their interest at the expense of other shareholders, thereby increasing the likelihood of financial reporting quality. On the other hand, these findings also indicate that AC members owning more shares in the firm may be more incentivised to ensure that the financial statements are accurate and that the firm has complied with accounting standards. Such AC members may also actively participate in AC meetings and provide effective oversight. Therefore, we propose the following hypothesis:

H2: AC share ownership has a significant relationship with financial restatement.

AC busyness, financial restatement and AC share ownership

AC members play a critical role in maintaining the integrity of financial reporting by overseeing the financial reporting process, internal control systems and external audits. However, the effectiveness of ACs can be influenced by several factors, including AC busyness and the share ownership[5] of AC members. AC busyness may decrease the committee's effectiveness and the members' share ownership may increase the committee's accountability to shareholders. Moreover, AC members serving on multiple boards unequally allocate their efforts to different directorships according to incentives related to firm risk and not firm size (Liu et al. 2023). Thus, the association between AC busyness and financial reporting quality may be more pronounced when AC members hold share ownership.

Busy AC members are likely to prioritise their monitoring responsibility to favour the firm that offers the highest compensation and the greatest reputation incentives (Khoo et al. 2020). Hence, the empirical question is whether AC share ownership moderates the association between AC busyness and financial restatement. In this regard, share ownership can serve as an incentive for active engagement among busy AC members in fulfilling their monitoring duties, as it aligns their interests with those of shareholders, reinforced by share ownership and share option compensation. Consequently, this alignment would enhance their readiness to scrutinise and confront opportunistic managerial behaviour, even amid their other commitments. Therefore, we expect that busy AC members with share ownership will be associated with lower financial restatement.

However, busy AC members with ownership are more likely to be free-riders and may shirk their monitoring responsibilities if they benefit from managers' financial frauds and irregularities. As a result, such AC members will be reluctant to challenge management's aggressive misreporting and opportunistic behaviours. In this regard, busy AC members will be associated with higher

financial restatement if they have share ownership in the firm. Therefore, we hypothesise the following:

H3: The AC share ownership moderates the association between AC busyness and financial restatement.

Research Methodology

This section presents the methodology we employed to achieve our objective of examining whether AC busyness affects financial restatements and the moderating role of AC share ownership in this relationship in testing. We used quantitative data sourced from a sample of firms listed in Australia and employed a logit regression model to test our hypotheses. Additionally, we used Pearson's pairwise correlation to make inferences about any significant relationships between the variables we used in our regression model.

Sample selection

Corporate governance, audit fees and auditor-related data were sourced from the Securities Industry Research Centre of Asia-Pacific (SIRCA) by firms listed on the ASX from 2001 to 2015.[6] Data on corporate governance characteristics, including board characteristics, AC compositions, AC busyness and audit-related attributes, were extracted from the SIRCA corporate governance portal, covering around 1500 listed Australian firms in a given financial year. Firm-specific characteristics, including the number of shares outstanding, total assets, leverage and profitability, were obtained from DataStream. Consistent with the existing literature, the financial restatement data were derived from DataStream, which has wider uses in accounting, auditing and corporate governance research (Wahab et al. 2014; Campa and Donnelly 2016).

Our initial sample consisted of 13 034 firm-year observations after combining SIRCA and DataStream. Consistent with past studies (Tanyi and Smith 2015), we excluded financial institutions because they have different business models, risk profiles and reporting requirements and are subject to unique sets of regulations in comparison with non-financial institutions. Empirical research posits that financial sectors face rigorous regulation with unique corporate governance guidelines that encompass internal control, risk assessment and reporting, covering aspects such as capital adequacy, liquidity management and anti-money laundering measures (Lim et al. 2007; Kashyap and Iveroth 2021). We also excluded firm-year observations with missing data on corporate governance, auditing and financial accounting. Finally, we excluded the 2001–2003 period because the financial restatement data for this period are inadequately represented in DataStream. Further, 2003 was the year ACG was introduced; hence, its effect is expected to have a potential influence on firms in subsequent years.

After accounting for our inclusion criteria, our final sample comprises 6408 firm-year observations spanning 2004–2015. These observations are drawn from a diverse pool of 850 non-financial firms operating in Australia, representing firms of varying sizes, including small, medium and large enterprises. The inclusion of each firm-year observation in the sample is conditional on the availability of corporate governance, auditing, financial restatement and firm-specific financial accounting data. Finally, to eliminate any undue influence of extreme values in the database, possibly owing to spurious outliers, all continuous variables are winsorised to 1 and 99 percentiles. Table 1 (Panel A) reports the sample selection process, including the sample distribution among industries and years.

Research model

We specify the following logit regression equation to test the association between AC busyness and financial restatement (H1):

$$\begin{aligned} RESTATE_t\ (0,1) = {} & \partial_0 + \partial_1 ACBUSY_t + \partial_2 BODSIZE_t \\ & + \partial_3 BODINDP_t + \partial_4 ACMEM_t \\ & + \partial_5 ACIND_t + \partial_6 ACEXPT_t + \partial_7 AUDFEE_t \\ & + \partial_8 ARL_t + \partial_9 LEV_t + \partial_{10} SIZE_t + \partial_{11} ZSCORE_t \\ & + \partial_{12} LOSS_t + \partial_{13} BIG4_t + \partial_{14} GCOPIN_t \\ & + \partial_j \sum IndustryFE_t + \partial_k \sum YearFE_t + \in_t \end{aligned} \quad (1)$$

Equation (1) examines our first hypothesis (see the Appendix for definitions of the variables in the equation). *RESTATE*, the dependent variable (DV), is a dummy variable that equals one if the firm restated its financial statements during the current financial year and zero otherwise. In equation (1), the coefficient of primary interest is ∂_1, indicating the coefficient of *ACBUSY*. Suppose AC members are busy and lack sufficient monitoring activities. This is likely to increase financial restatements. In that case, we expect a positive coefficient of the *RESTATE* variable. Alternatively, suppose the knowledge spillover effect is true. When a busy AC member acquires auditing expertise, financial restatement is reduced. Therefore, we would expect a negative coefficient of financial restatement (*RESTATE*). We use two different variants of AC busyness (*ACBUSY*). First, we use a continuous variable to measure AC busyness (*ACBUSYNUM*). This variable is the sum of the total number of external directorial appointments held by AC members. This variable is measured at the group level, indicating AC members collectively. Second, we

Table 1 **Sample selection and distribution**

Panel A: Sample selection

Details	Firm-year observations
Initial firm-year observations (matched firm-year sample between SIRCA and DATASTREAM for the years 2001–2015)	13 034
Less: Firms with missing financial information or corporate governance details (audit committee busyness and share-ownership) and we drop firm observation of 2001, 2002 and 2003 for very limited coverage of financial restatement information from DATASTREAM	5451
	7583
Less: Firms belonging to regulated industries, financial institutions, banks, or insurance companies.	1175
Total firm-year observations (2004–2015)	6408
Unique firms within the sample	850

Panel B: Sample distribution (industry and year)

GICS code	GICS industry sector	Observations	Year	Observations
10	Energy	566	2004	500
15	Materials	1321	2005	528
20	Industrials	969	2006	546
25	Consumer discretionary	979	2007	561
30	Consumer staples	497	2008	561
35	Healthcare	531	2009	567
45	Information technology	624	2010	558
50	Telecommunication service	517	2011	548
55	Utilities	245	2012	523
60	Real estate	159	2013	514
			2014	507
			2015	495
	Total	6408		6408

GICS, Global Industry Classification Standard.

measure the sum of the total number of external directorial appointments held by AC members by calculating the average value for AC busyness (*ACBUSYAVG*) divided by the number of AC members. This variable is measured for each AC member.

The following logistic regression equation is specified to test the association of AC share ownership with financial restatement (H2):

$$\begin{aligned} RESTATE_t\ (0,1) &= \lambda_0 + \lambda_1 ACSHR_t + \lambda_2 BODSIZE_t \\ &+ \lambda_3 BODINDP_t + \lambda_4 ACMEM_t + \lambda_5 ACIND_t \\ &+ \lambda_6 ACEXPT_t + \lambda_7 AUDFEE_t + \lambda_8 ARL_t \\ &+ \lambda_9 LEV_t + \lambda_{10} SIZE_t + \lambda_{11} ZSCORE_t \\ &+ \lambda_{12} LOSS_t + \lambda_{13} BIG4_t + \lambda_{14} GCOPIN_t \\ &+ \lambda_j \sum IndustryFE_t + \lambda_k \sum YearFE_t + \in_t \end{aligned} \quad (2)$$

Equation (2) examines our second hypothesis (see the Appendix for definitions of the variables in the equation). The coefficient of primary interest is λ_1, indicating the coefficient of AC shareholding (*ACSHR*). If the 'entrenchment effect' is valid, the level of AC share ownership will raise audit quality concerns and likely increase financial restatement. Thus, we would expect a positive coefficient of the *RESTATE* variable. Alternatively, following the 'incentive alignment' theory, allowing share ownership to the AC will lead to higher audit quality and ensure credible financial reporting. Therefore, we would expect a negative coefficient of financial restatement (*RESTATE*). We also use two different proxies to measure AC share ownership (*ACSHR*): *ACSHRDUM* and *ACSHRPCT*. First, *ACSHRDUM* is considered a dummy variable assigned a value of one; otherwise, zero. Second, *ACSHRPCT* is a continuous variable measured as the percentage of the total share ownership by AC members to the total number of shares outstanding in a given financial year in our sample.

Finally, to examine the moderating effect of AC share ownership on the association between AC busyness and financial restatement (H3), we estimate the following logit regression equation:

$$\begin{aligned} RESTATE_t\ (0,1) &= \beta_0 + \beta_1 ACBUSY_t + \beta_2 ACSHR_t \\ &+ \beta_3 ACBUSY * ACSHR_t + \beta_4 BODSIZE_t \\ &+ \beta_5 BODINDP_t + \beta_6 ACMEM_t + \beta_7 ACIND_t \\ &+ \beta_8 ACEXPT_t + \beta_9 AUDFEE_t + \beta_{10} ARL_t \\ &+ \beta_{11} LEV_t + \beta_{12} SIZE_t + \beta_{13} ZSCORE_t \\ &+ \beta_{14} LOSS_t + \beta_{15} BIG4_t + \beta_{16} GCOPIN_t \\ &+ \beta_j \sum IndustryFE_t + \beta_k \sum YearFE_t + \in_t \end{aligned} \quad (3)$$

The coefficient of primary interest is β_3, indicating the coefficient of $ACBUSY * ACSHR$. The coefficient of β_3 will be positive if the 'entrenchment effect' is valid, which will suggest that granting share ownership to the AC will increase the likelihood of financial restatements. Alternatively, if the coefficient of β_3 is negative, the 'incentive alignment' effect is valid and granting AC share ownership is beneficial for reducing financial restatements.

Control variable definitions

We control for several corporate governance mechanisms, such as board characteristics, AC composition and audit quality in the logit regression model (see the Appendix for definitions of the control variables). Extant auditing research suggests that board and AC composition likely influence the transparency of a firm's financial reporting process (Bédard and Gendron 2010). Therefore, we include board size (*BODSIZE*) and board independence (*BODINDP*) as proxies for board characteristics. A large board offers more opportunities for robust discussion among board members, potentially enhancing their monitoring role. However, it comes with drawbacks such as higher coordination costs, leading to issues like free-ride and suboptimal decisions that can reduce overall monitoring effectiveness (Lipton and Lorsch 1992). Also, independent directors, directors with no substantial relationship with the firm aside from their role on the board (Neville et al. 2019), viewed as signals of governance expertise, are motivated to act vigilantly to prevent accounting restatement. Increased board independence is expected to strengthen the scrutiny of financial restatement and reduce the likelihood of financial misreporting (Lin et al. 2006). Further, we control for AC size (*ACMEM*), independence (*ACIND*) and the existence of accounting members (*ACEXPT*) because a higher-quality AC is a commonly offered solution for curbing financial misstatement (Krishananmoorthy et al. 2002).

DeAngelo (1981) suggests that audit quality is a key attribute of the financial restatement discovery process. To control for audit quality, we include audit fees (*AUDFEE*), going concern opinion (*GCOPIN*) and auditor size (*BIG4*) within the logit regression model. Large audit firms (*BIG4*) are often more resourceful and have more expert auditors who are likely to enforce correct accounting standard practices, thereby reducing financial restatement (Romanus et al. 2008). In addition, economic bondage between the client and auditor may restrict the application of due diligence in the auditing process and impair auditor independence, resulting in a higher incidence of financial restatement (Habib et al. 2021a). Further, a firm that requires a longer ARL is likely to have experienced lengthy negotiations between auditors and clients, resulting in a higher possibility of financial restatement. *ARL* is measured as the natural logarithm of the difference between the number of calendar days from the fiscal year-end to the date of the auditor's report. A going concern (GC)[7] opinion (*GCOPIN*) is often used as an indicator of audit quality (Guo et al. 2020). *GCOPIN* is measured as a dummy variable, coded one if the firm had a going concern audit opinion and zero otherwise. Auditors who are prepared to issue GC opinions detect, report or urge management to rectify financial misstatements.

Since a financially distressed firm often engages in restatements, we control for firm profitability (*LOSS*) and distress risk (*ZSCORE*). DeFond and Jiambalvo (1991) posit that an increased incidence of debt suggests the presence of a debt covenant, resulting in increased incentives for earnings management.

Finally, we control for firm size (*SIZE*) as a predictor of financial restatement. Large firms are more stable and hold sufficient resources to establish better internal control mechanisms. Hence, they are less likely to engage in financial restatements (Romanus et al. 2008).

Results

In this section, we provide the statistical and empirical results of the test of our hypotheses. Additionally, we provide the results from the additional tests, including dealing with endogeneity concerns, to determine the robustness of our main results.

Descriptive statistics

Table 2 presents the descriptive statistics of the variables used in the regression models. The sample consists of firm years, with approximately 18.5% of the sample firm years experiencing a financial restatement. AC busyness (*ACBUSYNUM*) indicates that each AC

Table 2 **Descriptive statistics**

Variables	MEAN	SD	MIN	P25	MEDIAN	P75	MAX
RESTATE	0.185	0.389	0	0	0	0	1
ACBUSYNUM	5.445	3.663	0	2	5	8	20
ACBUSYAVG	1.551	1.174	0	0.667	1.5	2.333	12
ACSHRDUM	0.566	0.496	0	0	1	1	1
ACSHRPCT	0.037	0.1	0	0	0.001	0.015	0.676
BODSIZE (number)	6.489	2.478	3	5	6	8	14
BODSIZE (log)	1.806	0.353	0	1.609	1.792	2.079	3.497
BODINDP (number)	4.713	2.137	1	3	4	6	11
BODINDP (%)	0.722	0.166	0	0.615	0.75	0.833	1
ACMEM (number)	3.195	1.365	0	3	3	4	8
ACMEM (log)	1.363	0.42	0	1.386	1.386	1.609	2.197
ACIND (number)	2.938	1.342	0	2	3	4	8
ACIND (%)	0.867	0.275	0	0.857	1	1	1
ACEXPERT (number)	1.027	0.918	0	0	1	2	5
AUDFEE	12.118	1.411	0	11.212	11.987	12.811	21.753
ARL	70.692	58.403	10	55	66	88	229
LEV	0.156	0.17	0	0	0.104	0.272	0.798
SIZE	4.982	2.016	1.003	3.616	4.927	6.225	12.61
ZSCORE	1.70	2.575	−4.996	0	1.571	3.125	8.375
LOSS	0.385	0.487	0	0	0	1	1
BIG4	0.666	0.472	0	0	1	1	1
GCOPIN	0.10	0.30	0	0	0	0	1

collectively holds an average of approximately 5.445 external board memberships in addition to the existing firm.

The mean AC busyness (*ACBUSYAVG*) is 1.551, indicating that AC members hold an average of 1.551 external directorships individually. The mean statistics also reveal that 56.6% of the sample firms grant share ownership to the AC (*ACSHRDUM*). On average, 3.7% of the total number of shares outstanding are held by AC members (*ACSHRPCT*).

The average number of board members (*BODSIZE*) in a firm is 6.489 directors (median = 6), ranging between three and 14. Our findings are consistent with those of Kiel and Nicholson (2006), who report that the average board size in ASX companies is 5.7 directors, with a range of three to 16 directors. Further, Le et al. (2023) report that the average board size in ASX firms is 7.396 (median = 7), with the average number of independent board members being 4.713 directors (mean value of *BODINDP* = 72.7%). Our descriptive statistics are consistent with those of Le et al. (2023), who report the average board composition for independence in ASX companies as 75.8%.

The average size of the AC (*ACMEM*) is 3.195 directors, and 86.7% of AC members are independent directors (*PACIND*). On average, each firm has at least one AC member with financial expertise (i.e., *ACEXPT* = 1.027), with a range from one to five. In addition, the mean statistics reveal that 66.6% of the sample firm years are audited by a Big 4 auditor (*BIG4*), 10% of the sample firm years receive a going concern opinion (*GCOPIN*), and the firm *ARL* is 70.692 days. A total of 38.5% of firm-year observations report negative earnings (*LOSS*). On average, the sample firms possess 15.6% leverage (*LEV*).

Mean difference test

To summarise the results of our study, Table 3 presents a univariate analysis that examines the mean differences in variables between firms that restated their financial statements (*RESTATE* = 1) and those that did not (*RESTATE* = 0). Our findings suggest that firms that restate have higher mean values of AC busyness (*ACBUSY*) in both the *ACBUSYNUM* and *ACBUSYAVG* variants, and the differences are statistically significant at $p < 0.01$. Additionally, we observe that restating firms have lower mean values of AC share ownership (*ACSHRDUM* and *ACSHRPCT*), and the differences are also statistically significant at $p < 0.01$. Further, we find that restating firms tend to have larger board sizes (*BODSIZE*) and a higher proportion of independent directors (*BODINDP*) than non-restating firms.

Significantly, restating firms tend to have more AC members, including a relatively higher number of independent directors and directors with financial expertise and higher audit fees. Conversely, non-restating firms tend to have a longer *ARL* and negative profits (*LOSS*) and are less likely to be audited by a Big 4 auditor (*BIG 4*). Finally, we find that the likelihood of engaging in financial restatement is higher for larger firms, and the results are statistically significant at the 1% level. Therefore, our study provides evidence that firms engaging

Table 3 **Mean difference test**

Variables	RESTATE = 1 $N = 1187$	RESTATE = 0 $N = 5221$	Mean Diff.	*t*-value
ACBUSYNUM	6.239	5.264	0.975	8.325***
ACBUSYAVG	1.817	1.490	0.326	8.690***
ACSHRDUM	0.286	0.630	−0.345	−22.467***
ACSHRPCT	0.011	0.043	−0.032	−10.107
BODSIZE	1.847	1.797	0.050	4.445***
BODINDP	0.746	0.716	0.029	5.525***
ACMEM	1.398	1.355	0.425	3.154***
ACIND	0.899	0.860	0.039	4.358***
ACEXPT	1.139	1.001	0.137	4.463***
AUDFEE	12.513	12.029	0.485	10.781***
ARL	67.937	71.325	−3.388	−1.80*
LEV	0.163	0.154	0.009	1.631
SIZE	5.473	4.870	0.604	9.377***
ZSCORE	1.751	1.688	0.063	0.763
LOSS	0.364	0.390	−0.026	−1.759*
BIG4	0.692	0.660	0.032	2.098**
GCOPIN	0.101	0.100	0.001	0.135

Note: *t*-statistics are statistically significant at *** $p < 0.01$, ** $p < 0.05$ and * $p < 0.10$ levels.

in financial restatement differ from non-restating firms regarding their AC busyness, ownership status, board composition, AC characteristics, audit fees and firm size. These findings can help regulators and investors better understand the factors associated with financial restatements and make informed decisions about financial reporting quality and regulations.

Correlation analysis

Table 4 presents the Pearson pairwise correlations of the selected variables used in the regression models. Our findings indicate a positive correlation between *ACBUSYNUM* and *RESTATE*, $r = 0.103$, $p < 0.01$, and between *ACBUSYAVG* and *RESTATE*, $r = 0.108$, $p < 0.01$, suggesting that firms with busy AC members are likely to be engaged in financial restatements. Additionally, we observe a negative correlation between ACSHRDUM and RESTATE, $r = -0.270$, $p < 0.01$, and between *ACSHRPCT* and *RESTATE*, $r = -0.125$, $p < 0.01$, indicating that firms with AC share ownership experience fewer financial restatements. Moreover, the correlation between AC busyness and AC share ownership is negative, implying that busy AC members have lower shareholdings.

Further, the correlation between *RESTATE* and corporate governance proxies (*ACMEM, ACIND, ACEXPT*) is negative and significant (e.g., −0.040, −0.072 and −0.066, respectively, $p < 0.01$). Conversely, we find that *RESTATE* is relatively high for large firms (*SIZE*) and those with higher leverage (*LEV*). Our correlation analysis supports the notion that financial restatements are more likely in firms with busy AC members and decrease when AC members own shareholdings.

Regression analysis

Tables 5 and 6 present the logit regression results relating to the financial restatement, AC busyness and AC share ownership, including control variables. We developed three different hypotheses to examine our three separate research questions. First, we determine whether AC busyness affects financial restatement in Hypothesis 1. Second, we developed Hypothesis 2 to test the effect of AC share ownership on financial restatement. Finally, we examine the moderating effect of AC share ownership on the association between AC busyness and financial restatement in Hypothesis 3. Our logit regression models, equations (1), (2) and (3), examine Hypotheses 1, 2 and 3, respectively.

Table 5 reports the findings of Hypotheses 1 and 2. In Table 5, columns (1) and (2) report the findings of Hypothesis 1, which examines the effect of AC busyness on financial restatements. As indicated earlier, we use two different variants for AC busyness: *ACBUSYNUM* and *ACBUSYAVG*. Our DV is the financial restatement dummy (*RESTATE*). Our results show that the coefficient of AC busyness (*ACBUSYNUM* and *ACBUSYAVG*) is positive, with coefficients = 0.064*** and 0.251*** ($z = 5.39$ and 8.475, respectively, $p < 0.01$), suggesting that the likelihood of a firm reporting financial restatement is significantly higher in the presence of busy AC members. Further, the monitoring quality of the AC is impaired when AC members are busy with external board (or committee) activities.

Columns (3) and (4) of Table 5 report the findings of Hypothesis 2, which examines the effect of AC share ownership on financial restatement. We use two proxies to measure AC share ownership (*ACSHRDUM* and

Table 4 Correlation matrix

Variables	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)
(1) *RESTATE*	1																	
(2) *ACBUSYNUM*	**0.103**	1																
(3) *ACBUSYAVG*	**0.108**	**0.766**	**1**															
(4) *ACSHRDUM*	**−0.270**	**−0.067**	**−0.047**	1														
(5) *ACSHRPCT*	**−0.125**	**−0.084**	**−0.053**	**0.325**	1													
(6) *BODSIZE*	**0.055**	**0.302**	**0.068**	**−0.101**	**−0.192**	1												
(7) *BODINDP*	**−0.069**	**0.201**	**0.101**	**−0.090**	**−0.135**	**0.097**	1											
(8) *ACMEM*	**−0.040**	**0.270**	**0.106**	**0.065**	**0.051**	**0.394**	0.150	1										
(9) *ACINDEP*	**−0.063**	**0.315**	**0.166**	−0.016	**−0.074**	**0.454**	**0.337**	**0.874**	1									
(10) *ACEXPT*	**−0.058**	**0.177**	**0.128**	−0.009	**−0.056**	**0.227**	**0.133**	**0.427**	**0.414**	1								
(11) *AUDFEE*	**0.133**	**0.311**	**0.132**	−0.015	**−0.154**	**0.486**	**0.163**	**0.264**	**0.331**	**0.236**	1							
(12) *ARL*	*0.023*	**0.064**	**0.048**	*0.023*	*0.021*	**−0.052**	**−0.065**	**−0.059**	**−0.078**	**−0.056**	**−0.109**	1						
(13) *LEV*	*0.020*	**0.101**	**0.057**	*0.025*	0.051	**0.185**	0.010	**0.068**	**0.092**	**0.041**	**0.310**	0.014	1					
(14) *SIZE*	**0.116**	**0.374**	**0.187**	0.006	**0.207**	**0.524**	**0.216**	**0.258**	**0.356**	**0.252**	**0.274**	**0.139**	**0.327**	1				
(15) *ZSCORE*	0.010	**0.078**	**0.035**	**0.073**	0.002	**0.115**	−0.013	**0.049**	**0.070**	**0.089**	**0.133**	**0.058**	**0.108**	**−0.221**	1			
(16) *LOSS*	*0.021*	**0.128**	**0.074**	**−0.053**	0.009	**−0.122**	**−0.070**	**−0.081**	**−0.116**	**−0.148**	**0.301**	**0.095**	**−0.114**	**−0.404**	**0.351**	1		
(17) *BIG4*	*−0.026*	**0.227**	**0.107**	**0.043**	**−0.103**	**0.319**	**0.180**	**0.198**	**0.272**	**0.161**	**0.233**	**−0.087**	**0.106**	**0.418**	**0.111**	**0.154**	1	
(18) *GCOPIN*	0.012	**0.121**	**0.087**	**−0.055**	**0.038**	**0.100**	−0.018	**−0.052**	**−0.088**	**−0.079**	**0.143**	**0.105**	**0.072**	**−0.294**	**0.367**	**0.345**	**−0.143**	1

Note: Bold and italic values are statistically significant at $p < 0.01$ and $p < 0.05$ levels, respectively.

Table 5 **Regression analysis (Hypotheses 1 and 2)**

Variables	(1) RESTATE	(2) RESTATE	(3) RESTATE	(4) RESTATE
Intercept	−5.128***	−5.694***	−5.101***	−5.154***
	(−20.633)	(−10.501)	(−9.478)	(−9.535)
ACBUSYNUM	0.064***	-	-	-
	(5.390)			
ACBUSYAVG	-	0.251***	-	-
		(8.475)		
ACSHRDUM	-	-	−0.387***	-
			(−4.255)	
ACSHRPCT	-	-	-	−0.921***
				(−6.620)
BODSIZE	0.037	0.171	0.078	−0.002
	(0.34)	(1.337)	(0.609)	(−0.016)
BODINDP	−0.114	0.036	0.076	0.028
	(−0.517)	(0.151)	(0.316)	(0.118)
ACMEM	−0.077	−0.002	0.052	0.094
	(−0.907)	(−0.023)	(0.753)	(1.360)
ACIND	0.081	0.014	−0.026	−0.056
	(1.012)	(0.191)	(−0.346)	(−0.759)
ACEXPT	−0.010	−0.032	−0.009	−0.016
	(−0.179)	(−0.738)	(−0.225)	(−0.397)
AUDFEE	0.087***	0.093**	0.096**	0.099**
	(2.769)	(2.318)	(2.453)	(2.509)
ARL	0.001	0.001	0.001	0.001
	(1.174)	(1.175)	(1.126)	(1.185)
LEV	0.562**	0.548**	0.511**	0.545**
	(1.967)	(2.353)	(2.221)	(2.373)
SIZE	0.008***	0.011***	0.034***	0.023***
	(3.237)	(3.332)	(3.264)	(3.737)
ZSCORE	0.003	0.003	0.004	0.005
	(0.219)	(0.202)	(0.267)	(0.333)
LOSS	0.005	0.013	0.017	0.011
	(0.062)	(0.157)	(0.198)	(0.128)
BIG4	−0.18**	−0.169**	−0.154*	−0.16*
	(−2.016)	(−2.052)	(−1.876)	(−1.939)
GCOPIN	0.206	0.203	0.232*	0.243*
	(0.791)	(1.532)	(1.764)	(1.849)
INDUSTRY	YES	YES	YES	YES
YEAR	YES	YES	YES	YES
Observations	6408	6408	6408	6408
LR Chi^2	1692.27	1495.09	1543.03	1465.02
Pseudo R^2	0.296	0.30	0.294	0.296
Prob.	0.00	0.00	0.00	0.00

Note: *z*-statistics are in parentheses. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$. Standard errors are clustered by firm and year.

ACSHRPCT). Our results show a negative coefficient of AC share ownership, coefficient $= -0.387^{***}$ and -0.921^{***} ($z = -4.255$ and -6.62, $p < 0.01$, respectively), indicating that the likelihood of reporting financial restatement is lower for firms that grant share ownership to AC members. Our finding is statistically significant at the 1% level. The findings of Hypothesis 2 suggest that granting share ownership to an AC acts as an incentive alignment mechanism that motivates AC members to remain vigilant in their monitoring role. Regarding control variables, we find that large (*SIZE*) and highly leveraged firms (*LEV*) are likely to engage in financial restatement. Conversely, firms audited by a large (*BIG4*) auditor are less likely to engage in financial restatement.

Table 6 reports the findings for Hypothesis 3, which examines the moderating effect of AC share ownership on the association between AC busyness and financial restatement. Our primary variables of interest are *ACBUSY*ACSHR*. Because we use two proxies for both AC busyness (*ACBUSYNUM* and *ACBUSYAVG*) and AC share ownership (*ACSHRDUM* and *ACSHRPCT*), according to equation (3), we have four estimates to examine (*ACBUSYNUM*ACHSHRDUM*, *ACBUSYAVG *ACHSHRDUM*, *ACBUSYNUM*ACHSHRPCT* and *ACBUSYAVG*ACHSHRPCT*).

Table 6 **Regression analysis (Hypithesis 3)**

Variables	(1) RESTATE	(2) RESTATE	(3) RESTATE	(4) RESTATE
Intercept	−4.94***	−5.584***	−4.92***	−5.496***
	(−9.082)	(−10.196)	(−9.136)	(−10.117)
ACBUSYNUM	0.071***	-	0.061***	-
	(4.966)		(5.538)	
ACBUSYAVG	-	0.312***	-	0.256***
		(7.818)		(8.333)
ACSHRDUM	−0.338**	−0.133*	-	-
	(−2.453)	(−1.804)		
ACSHRPCT	-	-	−0.444***	−0.473***
			(−5.187)	(−3.952)
*ACBUSY*ACSHRDUM*	−0.011**	-	-	-
	(−2.596)			
*ACBUSYAVG*ACSHRDUM*	-	−0.147***	-	-
		(−3.562)		
*ACBUSY*ACSHRPER*	-	-	−0.108**	-
			(−2.419)	
*ACBUSYAVG*ACSHRDUM*	-	-	-	−0.305***
				(−2.917)
BODSIZE	0.013	0.149	−0.066	0.072
	(0.076)	(1.166)	(−0.51)	(0.558)
BODINDP	−0.096	0.057	−0.142	0.014
	(−0.394)	(0.235)	(−0.585)	(0.76)
ACMEM	0.029	0.088	0.072	0.138**
	(0.415)	(1.263)	(0.998)	(1.97)
ACIND	−0.024	−0.073	−0.054	−0.113
	(−0.319)	(−0.965)	(−0.722)	(−1.504)
ACEXPT	−0.014	−0.034	−0.021	−0.041
	(−0.336)	(−0.834)	(−0.504)	(−1.002)
AUDFEE	0.09**	0.095**	0.092**	0.098**
	(2.27)	(2.384)	(2.323)	(2.435)
ARL	0.001	0.001	0.001	0.001
	(1.083)	(1.027)	(1.145)	(1.088)
LEV	0.551**	0.542**	0.586**	0.568**
	(2.375)	(2.326)	(2.537)	(2.445)
SIZE	0.013	0.017	−0.002	−0.002
	(0.387)	(0.53)	(−0.063)	(−0.047)
ZSCORE	0.006	0.005	0.007	0.007
	(0.392)	(0.351)	(0.451)	(0.439)
LOSS	0.005	0.012	0.001	0.007
	(0.06)	(0.142)	(0.017)	(0.082)
BIG4	−0.17**	−0.158*	−0.175**	−0.165**
	(−2.067)	(−1.907)	(−2.114)	(−1.992)
GCOPIN	−0.194	−0.193	−0.21	−0.207
	(−1.468)	(−1.456)	(−1.591)	(−1.563)
INDUSTRY	YES	YES	YES	YES
YEAR	YES	YES	YES	YES
Observations	6408	6408	6408	6408
LR Chi^2	1556.92	1583.63	1485.03	1487.36
Pseudo R^2	0.298	0.303	0.301	0.305
Prob.	0.00	0.00	0.00	0.00

Note: *z*-statistics are in parentheses. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$. Standard errors are clustered by firm and year.

Consistent with our earlier findings, the coefficients of AC busyness (positive association) and AC share ownership (negative association) show the expected sign. The interaction between AC busyness and AC share ownership (*ACBUSYNUM*ACHSHRDUM* and *ACBUSYAVG * ACHSHRDUM*) show negative coefficients of −0.011** and −0.147*** ($z = -2.596$ and −3.562 respectively, $p < 0.05$). We consistently find a negative association between *ACBUSYNUM*ACHSHRPCT* and *ACBUSYAVG*ACHSHRPCT* on financial restatement (coefficient = −0.108** and −0.305***, $z = -2.419$ and −2.917, respectively, $p < 0.05$), suggesting that AC share ownership moderates the association between AC busyness and financial restatement. Our findings

indicate that AC share ownership can act as an incentive alignment mechanism to curb agency conflicts and reduce financial restatements. Pseudo R^2 shows that the predictability of our logit regression model ranges from 29.8% to 30.5%.

Additional and robustness tests

(a) Endogeneity test

The logit regression estimates the determinants of financial restatement as a function of AC share ownership, AC busyness and other control variables, in which the choice of AC share ownership is random. As explained previously, the ACG does not expressly recommend granting share ownership to AC members. With the flexibility in such soft regulation, firms may opt to allow AC members to own shares according to their firms' specific business strategy. As a result, granting share ownership to AC members is not a random selection. Our correlation analysis (Table 4) indicates that certain firm-specific attributes, such as large leveraged firms or those with independent boards, are more likely to grant share ownership to ACs. Therefore, we apply Heckman's (1979) two-stage test to address the self-selection problem of AC share ownership. We estimate the following probit model in the first stage of the regression analysis:

$$\begin{aligned} Pr(ACSHRDUM)_t\ (0,1) &= \mu_0 + \mu_1 BODSIZE_t \\ &+ \mu_2 BODINDP_t + \mu_3 ACMEM_t + \mu_4 ACIND_t \\ &+ \mu_5 ACEXPT_t + \mu_6 GCOPIN_t + \mu_7 SIZE_t \\ &+ \mu_8 LEV_t + \mu_9 LOSS_t + \mu_{10} ACSHR\_INDAVG_t \\ &+ \mu_j \sum IndustryFE_t + \mu_k \sum YearFE_t + \in_t \quad (4) \end{aligned}$$

ACSHR_INDAVG is the exogenous independent variable for Heckman's (1979) 2SLS test. *ACSHR_INDAVG* represents the average (mean) presence of AC share ownership aligning with peers in the same industry (two-digit GICS) during each year of the sample period (excluding the firm itself). Existing research indicates that firms apply firm-specific and industry corporate governance guidelines (Hines et al. 2015). Thus, we calculate industry-based AC share ownership (*ACSHR_INDAVG*) as a proxy for the exogenous independent variable. Consistent with extant research, we expect a positive association between *ACSHRDUM* and *ACSHR_INDAVG* because firms likely follow a similar corporate governance practice aligning with industry peers. In line with Engel et al. (2010), we include a set of corporate governance variables, such as board attributes (*BODSIZE* and *BODINDP*) and AC composition (*ACMEM*, *ACINDP* and *ACEXPT*), as determinants of granting AC share ownership. Further, we include several firm-specific characteristics, such as firm size (*SIZE*), leverage (*LEV*) and profitability (*LOSS*), as predictors of AC share ownership. Finally, we control for any unobservable effect of the operating year (*YEAR*) and industry (*INDUSTRY*) that might affect AC share ownership. Following Heckman's (1979) 2SLS method using equation (4), we estimate the inverse Mills ratio (*IMR*), which was included as a control variable in equations (1), (2) and (3) to examine our hypotheses.

Table 7 shows the findings of Heckman's (1979) self-selection bias test. Column (1) of Table 7 displays the probit regression results, where we regress *ACSHRDUM* on the likely determinants of AC share ownership and the exclusion variable *ACSHR_INDAVG*. The coefficient of *ACSHR_INDAVG* is significantly positive (coefficient 3.087^{***}, $z = 3.92$, $p < 0.01$), thus supporting the choice of exclusion variable. We calculate the IMR from the first-stage probit model. We include it as an additional independent variable in the second-stage regression model. Columns (2) to (7) exhibit the results replicating the primary models that test Hypotheses 1, 2 and 3. Consistent with the baseline results, we find that the coefficient of AC busyness is positive and statistically significant at the 1% level. In addition, the coefficient of *ACSHRDUM* is negative, suggesting that AC share ownership reduces financial restatements. Finally, our findings indicate that firms with busy AC members who grant share ownership to AC members are less likely to engage in financial restatements.

(b) Impact of restatement on AC-affiliated firms

The ASX listing rules mandate that the companies included in the ASX All Ordinaries Index (primarily consisting of the top 500 companies, according to market capitalisation) must have an AC. Our sample consists of 93.1% (among 6408 firm-year observations) of firms that had ACs during the sample period.

Table 8 shows the empirical evidence on a limited sample in which equations (1), (2) and (3) were re-examined. Our findings suggest that AC busyness has a positive and statistically significant association with financial restatement. In addition, AC share ownership has a negative association with financial restatement. Finally, our findings suggest that AC share ownership still moderates the association between busyness and financial restatement.

(c) Alternative proxies for financial reporting quality: Real earnings management

A financial restatement is a form of financial misconduct. Firms often try to avoid restatement through real activities management, considering that restatements may cause litigation risks. Real activity management is less risky to implement because it has less scope to draw

Table 7 **Accounting for endogeneity: 2SLS instrumental variable**

Variables	(1) ACSHRDUM	(2) RESTATE	(3) RESTATE	(4) RESTATE	(5) RESTATE	(6) RESTATE	(7) RESTATE
Intercept	−1.741*	−5.392***	−5.93***	−5.084***	−5.661***	−4.94***	−5.478***
	(−1.896)	(−8.802)	(−9.683)	(−7.987)	(−8.933)	(−8.013)	(−8.896)
ACBUSYNUM	-	0.059***	-	0.081***	-	0.061***	-
		(5.195)		(5.407)		(5.141)	
ACBUSYAVG	-	-	0.246***	-	0.33***	-	0.258***
			(7.471)		(7.655)		(7.501)
ACSHRDUM	-	-	-	−0.179***	−0.135***	-	-
				(−3.089)	(−3.223)		
ACSHRPCT	-	-	-	-	-	−3.789***	−3.011***
						(−4.23)	(−3.19)
*ACBUSYNUM*ACSHRDUM*	-	-	-	−0.05**	-	-	-
				(−2.43)			
*ACBUSYAVG*ACSHRDUM*	-	-	-	-	−0.249***	-	-
					(−3.822)		
*ACBUSYNUM*ACSHRPCT*	-	-	-	-	-	−0.106**	-
						(−2.289)	
*ACBUSYAVG*ACSHRPCT*	-	-	-	-	-	-	−1.105**
							(−2.267)
BODSIZE	−0.385***	−0.101	0.027	−0.069	0.071	−0.16	−0.024
	(−3.253)	(−0.667)	(0.181)	(−0.455)	(0.469)	(−1.06)	(−0.161)
BODINDP	0.157	0.037	0.181	0.04	0.187	−0.066	0.086
	(0.695)	(0.133)	(0.662)	(0.146)	(0.683)	(−0.24)	(0.314)
ACMEM	1.165***	0.027	0.107	0.026	0.077	0.086	0.15
	(11.184)	(0.207)	(0.802)	(0.197)	(0.593)	(0.622)	(1.093)
ACINDEP	−1.087***	−0.025	−0.098	−0.033	−0.078	−0.083	−0.143
	(−10.21)	(−0.19)	(−0.755)	(−0.257)	(−0.613)	(−0.619)	(−1.072)
ACEXPT	−0.037	−0.004	−0.023	−0.003	−0.022	−0.013	−0.033
	(−1.001)	(−0.089)	(−0.505)	(−0.059)	(−0.475)	(−0.291)	(−0.719)
LEV	−0.507**	0.603**	0.586**	0.665**	0.659**	0.693***	0.67**
	(−2.49)	(2.306)	(2.228)	(2.535)	(2.511)	(2.641)	(2.543)
SIZE	0.185***	0.055	0.058	0.031	0.036	0.012	0.015
	(7.896)	(1.327)	(1.407)	(0.729)	(0.853)	(0.296)	(0.351)
LOSS	−0.03	−0.071	−0.064	−0.07	−0.062	−0.079	−0.073
	(−0.403)	(−0.76)	(−0.687)	(−0.752)	(−0.663)	(−0.843)	(−0.781)
GCOPIN	−0.009	−0.093	−0.089	−0.068	−0.071	−0.102	−0.096
	(−0.073)	(−0.669)	(−0.637)	(−0.489)	(−0.511)	(−0.731)	(−0.684)
ACSHR_INDAVG	69.382***	-	-	-	-	-	-
	(2.593)						
AUDFEE	-	0.079*	0.084*	0.082*	0.086*	0.086**	0.091**
		(1.832)	(1.929)	(1.879)	(1.954)	(1.987)	(2.089)
ARL	-	0.001**	0.001**	0.001**	0.001**	0.001**	0.001**
		(2.427)	(2.347)	(2.213)	(2.105)	(2.265)	(2.144)
ZSCORE	-	0.003	0.003	0.006	0.006	0.008	0.008
		(0.177)	(0.193)	(0.353)	(0.346)	(0.48)	(0.477)
BIG4	-	−0.156*	−0.142	−0.148	−0.131	−0.145	−0.132
		(−1.724)	(−1.558)	(−1.627)	(−1.425)	(−1.587)	(−1.435)
IMR	-	0.176	0.187	−0.067	−0.065	−0.064	−0.064
		(0.928)	(0.987)	(−0.327)	(−0.317)	(−0.32)	(−0.323)
INDUSTRY	YES	YES	YES	YES	YES	YES	YES
YEAR	YES	YES	YES	YES	YES	YES	YES
Observations	6,408	6,408	6,408	6,408	6,408	6,408	6,408
LR Chi^2	1623.96	971.44	983.37	1045.37	1057.56	985.05	996.20
Pseudo R^2	0.266	0.231	0.235	0.235	0.243	0.239	0.244
Prob.	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Note: *z*-statistics are in parentheses. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$. Standard errors are clustered by firm and year.

Table 8 **Impact of financial restatement within AC-affiliated firms**

Variables	(1) RESTATE	(2) RESTATE	(3) RESTATE	(4) RESTATE	(5) RESTATE	(6) RESTATE
Intercept	−5.607***	−6.02***	−5.427***	−5.898***	−5.268***	−5.679***
	(−8.908)	(−9.566)	(−8.491)	(−9.234)	(−8.372)	(−9.027)
ACBUSYNUM	0.067***	-	0.089***	-	0.07***	-
	(5.71)		(5.768)		(5.656)	
ACBUSYAVG	-	0.245***	-	0.343***	-	0.255***
		(6.872)		(7.362)		(6.783)
ACSHRDUM	-	-	−0.187***	−0.011**	-	-
			(−3.161)	(−2.062)		
ACSHRPCT	-	-	-	-	−4.024***	−3.763***
					(−4.533)	(−4.167)
*ACBUSYNUM*ACSHRDUM*	-	-	−0.049**	-	-	-
			(−2.334)			
*ACBUSYAVG*ACSHRDUM*	-	-	-	−0.269***	-	-
				(−3.893)		
*ACBUSYNUM*ACSHRPCT*	-	-	-	-	−0.179***	-
					(−2.423)	
*ACBUSYAVG*ACSHRDUM*	-	-	-	-	-	−0.817***
						(−3.722)
BODSIZE	0.109	0.098	0.055	0.053	−0.035	−0.044
	(0.717)	(0.643)	(0.365)	(0.346)	(−0.227)	(−0.287)
BODINDP	0.271	0.228	0.293	0.237	0.181	0.134
	(0.944)	(0.788)	(1.021)	(0.821)	(0.625)	(0.463)
ACMEM	−0.11	−0.003	0.044	0.122	0.107	0.208**
	(−1.403)	(−0.038)	(0.538)	(1.475)	(1.289)	(2.507)
ACINDEP	−0.015	−0.006	−0.158*	−0.116	−0.216**	−0.201**
	(−0.172)	(−0.072)	(−1.73)	(−1.278)	(−2.353)	(−2.192)
ACEXPT	−0.015	−0.019	−0.019	−0.023	−0.032	−0.035
	(−0.325)	(−0.414)	(−0.429)	(−0.511)	(−0.697)	(−0.784)
AUDFEE	0.097**	0.099**	0.099**	0.101**	0.105**	0.107**
	(2.088)	(2.133)	(2.125)	(2.144)	(2.261)	(2.312)
ARL	0.001**	0.001**	0.001**	0.001**	0.001**	0.001**
	(2.35)	(2.299)	(2.182)	(2.094)	(2.211)	(2.144)
LEV	0.643**	0.635**	0.643**	0.629**	0.657**	0.642**
	(2.43)	(2.398)	(2.427)	(2.366)	(2.469)	(2.413)
SIZE	0.034	0.033	0.038	0.04	0.018	0.018
	(0.919)	(0.898)	(1.032)	(1.073)	(0.493)	(0.496)
ZSCORE	0.001	−0.002	0.002	0.001	0.005	0.003
	(−0.027)	(−0.089)	(0.116)	(0.03)	(0.261)	(0.189)
LOSS	−0.056	−0.052	−0.061	−0.057	−0.071	−0.067
	(−0.582)	(−0.543)	(−0.63)	(−0.584)	(−0.735)	(−0.687)
BIG4	−0.149	−0.148	−0.138	−0.136	−0.139	−0.138
	(−1.604)	(−1.582)	(−1.472)	(−1.451)	(−1.47)	(−1.458)
GCOPIN	−0.107	−0.096	−0.091	−0.081	−0.122	−0.112
	(−0.742)	(−0.669)	(−0.64)	(−0.564)	(−0.847)	(−0.771)
INDUSTRY	YES	YES	YES	YES	YES	YES
YEAR	YES	YES	YES	YES	YES	YES
Observations	5969	5969	5969	5969	5969	5969
LR Chi^2	921.05	928.85	987.61	998.77	930.64	938.25
Pseudo R^2	0.233	0.236	0.238	0.242	0.243	0.246
Prob.	0.00	0.00	0.00	0.00	0.00	0.00

Note: *z*-statistics are in parentheses. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$. Standard errors are clustered by firm and year.

the attention of auditors and regulators, and such activities can be justified as business strategy and planning. Roychowdhury (2006) finds that firms manipulate sales, over- or under-production, and aggressively adjust discretionary expenditures to avoid losses. Zang (2012) analyses the trade-off between REM and accruals management and finds that management treats both strategies as substitutes. Additionally, Cohen et al. (2008) find that firms that just achieved important earnings benchmarks used lower accruals and higher REM after SOX compared with similar firms before the SOX implementation period. Considering that our sample period is post-SOX, even though the study context pertains to Australian listed firms, we re-examined our pri-

Table 9 **Impact of AC busyness and share ownership on real earnings management**

Variables	(1) REM	(2) REM	(3) REM	(4) REM	(5) REM	(6) REM
Intercept	−0.332	−0.241	−0.219	−0.142	−0.291	−0.217
	(−1.37)	(−1.002)	(−0.979)	(−0.624)	(−1.209)	(−0.907)
ACBUSYNUM	−0.014**	-	−0.019*	-	−0.018***	-
	(−2.562)		(−1.892)		(−3.051)	
ACBUSYAVG	-	−0.037**	-	−0.041	-	−0.046***
		(−2.285)		(−1.552)		(−2.747)
ACSHRDUM	-	-	−0.139	−0.109	-	-
			(−1.48)	(−1.393)		
ACSHRPCT	-	-	-	-	−0.677	−0.625
					(−1.552)	(−1.517)
*ACBUSYNUM*ACSHRDUM*	-	-	0.006	-	-	-
			(0.538)			
*ACBUSYAVG*ACSHRDUM*	-	-	-	0.003	-	-
				(0.089)		
*ACBUSYNUM*ACSHRPCT*	-	-	-	-	0.122*	-
					(1.924)	
*ACBUSYAVG*ACSHRDUM*	-	-	-	-	-	0.379*
						(1.869)
BODSIZE	0.139	0.115	0.12	0.095	0.141	0.117
	(1.411)	(1.18)	(1.248)	(1.001)	(1.385)	(1.168)
BODINDP	0.312	0.268	0.308	0.264	0.289	0.247
	(1.57)	(1.378)	(1.581)	(1.389)	(1.477)	(1.288)
ACMEM	−0.031	−0.037	−0.006	−0.014	−0.024	−0.029
	(−1.148)	(−1.368)	(−0.229)	(−0.528)	(−0.955)	(−1.11)
ACINDEP	0.017	0.025	−0.006	0.003	0.011	0.019
	(0.483)	(0.686)	(−0.155)	(0.09)	(0.315)	(0.545)
ACEXPT	−0.013	−0.011	−0.014	−0.012	−0.014	−0.013
	(−0.806)	(−0.712)	(−0.855)	(−0.723)	(−0.857)	(−0.801)
AUDFEE	0.007	0.005	0.007	0.004	0.007	0.005
	(0.634)	(0.401)	(0.61)	(0.349)	(0.604)	(0.418)
ARL	0.002	0.002	0.003	0.002	0.002	0.003
	(−0.043)	(−0.004)	(−0.064)	(−0.034)	(−0.049)	(0.032)
LEV	−0.247**	−0.243**	−0.245**	−0.243**	−0.237**	−0.237**
	(−2.393)	(−2.324)	(−2.386)	(−2.327)	(−2.305)	(−2.272)
SIZE	−0.042***	−0.043***	−0.037***	−0.039***	−0.043***	−0.044***
	(−2.901)	(−2.924)	(−2.774)	(−2.797)	(−2.912)	(−2.977)
ZSCORE	−0.017	−0.017	−0.017	−0.016	−0.018	−0.017
	(−1.505)	(−1.457)	(−1.495)	(−1.454)	(−1.54)	(−1.461)
LOSS	0.011	0.012	0.019	0.019	0.004	0.005
	(0.343)	(0.317)	(0.565)	(0.558)	(0.136)	(0.164)
BIG4	0.008	0.004	0.007	0.002	0.015	0.011
	(0.221)	(0.122)	(0.186)	(0.069)	(0.397)	(0.265)
GCOPIN	0.018	0.024	0.01	0.018	0.015	0.019
	(0.169)	(0.221)	(0.098)	(0.166)	(0.137)	(0.178)
INDUSTRY	YES	YES	YES	YES	YES	YES
YEAR	YES	YES	YES	YES	YES	YES
Observations	971	971	971	971	971	971
F-statistics	13.36	13.34	13.29	13.30	13.25	13.20
Adjusted R^2	0.119	0.117	0.127	0.124	0.124	0.121
Prob.	0.00	0.00	0.00	0.00	0.00	0.00

Note: *t*-statistics are in parentheses. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$. Standard errors are clustered by firm and year.

mary findings using a different proxy for financial reporting quality, namely, REM. Our results are reported in Table 9.

We follow Roychowdhury (2006) to calculate the REM.[8] Using a limited matched sample, our results are consistent with the main findings, suggesting that firms with busier ACs report higher REM levels. Consistently, firms with higher REM are less likely to grant share ownership to ACs. Finally, we find that AC share ownership mitigates the positive association between AC busyness and firms' REM.

(d) Alternative measure of AC busyness

Table 10 **Alternative measure of AC busyness (Mendez et al. 2015)**

Variables	(1) RESTATE	(2) RESTATE	(3) RESTATE
Intercept	−5.499***	−5.431***	−5.281***
	(−10.187)	(−9.862)	(−9.768)
ACBUSY3	0.782***	0.969***	0.746***
	(8.509)	(7.321)	(7.653)
ACSHRDUM	-	−0.083	-
		(−1.581)	
*ACBUSY3*ACSHRDUM*	-	−0.382**	-
		(−2.157)	
ACSHRPCT	-	-	−0.488***
			(−4.459)
*ACBUSY3*ACSHRPCT*	-	-	−0.146***
			(−2.951)
BODSIZE	0.05	0.028	−0.048
	(0.389)	(0.214)	(−0.367)
BODINDP	−0.111	−0.078	−0.139
	(−0.455)	(−0.319)	(−0.568)
ACMEM	−0.042	0.059	0.104
	(−0.617)	(0.839)	(1.473)
ACINDEP	0.044	−0.055	−0.089
	(0.597)	(−0.722)	(−1.18)
ACEXPT	−0.006	−0.009	−0.017
	(−0.152)	(−0.22)	(−0.41)
AUDFEE	0.092**	0.094**	0.097**
	(2.322)	(2.38)	(2.467)
ARL	0.001	0.001	0.001
	(1.075)	(0.931)	(1.012)
LEV	0.529**	0.523**	0.555**
	(2.296)	(2.265)	(2.413)
SIZE	0.019	0.024	0.007
	(0.586)	(0.741)	(.229)
ZSCORE	0.003	0.003	0.004
	(1.009)	(1.172)	(1.254)
LOSS	0.011	0.008	0.006
	(0.135)	(0.09)	(0.075)
BIG4	−0.215***	−0.209**	−0.208**
	(−2.624)	(−2.537)	(−2.516)
GCOPIN	0.185	0.167	0.194
	(1.383)	(1.253)	(1.454)
INDUSTRY	YES	YES	YES
YEAR	YES	YES	YES
Observations	6408	6408	6408
LR Chi^2	1463.86	1557.79	1455.09
Pseudo R^2	0.314	0.303	0.306
Prob.	0.00	0.00	0.00

Note: *z*-statistics *are in parenthesis*. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$. Standard errors are clustered by firm and year.

Corporate governance best practice guidelines do not provide a clear definition of what constitutes a 'busy director' or a 'busy AC member'. Consequently, the measures of AC busyness in empirical accounting and auditing research are inconclusive. In earlier sections of this paper, we used two different measures of AC busyness (*ACBUSYNUM* and *ACBUSYAVG*). In this section, we aim to assess the robustness of our earlier findings by using the measure suggested by Méndez et al. (2015), which considers a director (AC member) to be busy (*ACBUSY3*) if they hold at least three simultaneous directorships.[9] The results of this analysis are presented in Table 10.

Table 10 presents the results of our analysis of the association between AC busyness and financial restatements. In column (1), we find a positive and statistically significant coefficient of AC busyness (*ACBUSY3*), indicating that firms are more likely to engage in financial restatements when their AC members are busy. In columns (2) and (3), we examine whether the relationship between AC busyness and restatements varies depending on whether AC members have share

ownership. To do so, we use two measures of AC share ownership (*ACSHRDUM* and *ACSHRPCT*) and interact with them with AC busyness (*ACBUSY3*). Our main variables of interest are *ACBUSY3*ACSHRDUM* and *ACBUSY3*ACSHRPCT*.

The results show that the coefficients of both *ACBUSY3*ACSHRDUM* and *ACBUSY3*ACSHRPCT* are negative, indicating that financial restatements are less likely to occur when AC members have share ownership. These findings are statistically significant at the 5% level. Overall, the study results are robust and consistent with our earlier findings and provide further evidence to support the hypothesis that busy AC members may be less effective in preventing financial restatements. However, the results also suggest that AC share ownership can mitigate this effect, highlighting the importance of aligning the interests of AC members with those of shareholders.

(e) Impact of the global financial crisis on financial restatement

The global financial crisis (GFC) has significantly influenced firm financial reporting quality, discretionary accruals and ACs in Australia. It has been established that good corporate governance practices affect firms' financial reporting quality during times of economic downturn. The empirical evidence on the relationship between macroeconomic crises and discretionary accruals is inconclusive. Habib et al. (2013) find a significant rise in discretionary accruals during the GFC period. In contrast, Choi et al. (2011) provide evidence that firm discretionary accruals decreased during the Asian financial crisis. From a corporate governance perspective, high-quality AC features are related to improved firm performance in Australia during the GFC (Aldamen et al. 2012). Aldamen and Duncan (2016) report that firms with good corporate governance mechanisms in place before the GFC are less likely to engage in excessive discretionary accruals during financially distressed periods. Auditors' GC opinions were higher during the GFC period than during the pre-GFC period (Xu et al. 2013). A Big 4 auditor appointment is associated with a reduction in earnings management for Australian firms in pre-crisis periods but not during the GFC. The presence of independent members in a firm's AC significantly reduces earnings management before and during the GFC (Mollik et al. 2020). In this section, we intend to investigate this issue because of the influence of the GFC on financial reporting quality and governance qualities and because our prior analyses do not address the GFC effect.

Table 11 presents the findings regarding the GFC effect on financial restatement. We divide the sample into two different groups: the GFC period (the financial years 2008, 2009 and 2010) and the non-GFC period. We re-perform equation (3) in both groups. Consistent with our earlier results, we find that AC busyness has a positive association with financial restatement, suggesting that AC busyness increases restatement irrespective of the GFC effect. Further, a negative association with AC share ownership indicates that firms engage in lower financial restatement irrespective of the GFC effect. Finally, we find that the moderating effect on the association between AC busyness and financial restatement is more pronounced within the group of the non-GFC period, and the findings are statistically significant ($p < 0.05$). Overall, our findings are consistent with earlier findings.[10]

Conclusion

The importance of ACs in ensuring financial reporting quality has received increased attention from regulators, boards of directors and investors. Although proponents of financial reporting quality have raised concerns about whether AC busyness affects the effectiveness of AC oversight and reporting quality, the extant literature provides mixed results on this issue. This study examines whether AC busyness enhances or reduces the likelihood of financial restatements. We tested three hypotheses and made three significant findings from our analysis of a sample of 6408 firm-year observations from 2004–2015 for ASX-listed companies. First, we investigated the association between AC busyness and the likelihood of their involvement in financial restatements. Our findings provide evidence supporting the notion that firms' financial restatement increases when AC members are busy. Second, we investigated the likelihood of ACs with share ownership being involved in financial restatement and find compelling evidence suggesting that ACs with share ownership are less prone to engaging in financial restatement. Third, we delved into the moderating role of AC share ownership on the association between AC busyness and financial restatement. Our findings substantiate that AC share ownership mitigates the positive association between AC busyness and financial restatements. These results are robust to controlling for endogeneity emanating from firms' deliberate decisions to grant shares to AC members.

This study has important implications for various stakeholders, including regulators, directors and investors. First, the findings demonstrate that principles-based corporate governance guidelines have significant value in promoting higher-quality financial reporting. Despite the criticism levelled at such 'soft regulation' for lacking clear guidance on issues such as AC workload, the study highlights the effectiveness of such guidelines in maintaining robust monitoring and accurate financial reporting practices. Regulators could explore the idea of setting limits on the number of external

Table 11 **Impact of GFC on financial restatement**

Variables	(1) RESTATE GFC	(2) RESTATE GFC	(3) RESTATE GFC	(4) RESTATE GFC	(5) RESTATE Non-GFC	(6) RESTATE Non-GFC	(7) RESTATE Non-GFC	(8) RESTATE Non-GFC
Intercept	−3.683***	−4.001***	−3.815***	−4.128***	−1.727***	−2.268***	−1.848***	−2.318***
	(−3.406)	(−3.717)	(−3.651)	(−3.943)	(−4.267)	(−5.618)	(−4.656)	(−5.828)
ACBUSYNUM	0.031**	-	0.046**	-	0.071***	-	0.056***	-
	(2.032)		(1.977)		(5.646)		(5.749)	
ACBUSYAVG	-	0.096*	-	0.159**	-	0.274***	-	0.218***
		(1.703)		(2.022)		(7.772)		(7.986)
ACSHRDUM	−0.602*	−0.606*	-	-	−0.463***	−0.333***	-	-
	(−1.804)	(−1.95)			(−3.791)	(−2.927)		
ACSHRPCT	-	-	−0.901	−0.855**	-	-	−0.631***	−0.717***
			(−1.555)	(−2.445)			(−3.827)	(−2.706)
*ACBUSYNUM*ACSHRDUM*	−0.028	-	-	-	−0.021**	-	-	-
	(−1.617)				(−2.192)			
*ACBUSYAVG*ACSHRDUM*	-	−0.102	-	-	-	−0.148***	-	-
		(−1.643)				(−2.641)		
*ACBUSYNUM*ACSHRPCT*	-	-	−0.079	-	-	-	−0.049**	-
			(−1.312)				(−1.983)	
*ACBUSYAVG*ACSHRPCT*	-	-	-	−0.279	-	-	-	−0.442**
				(−1.296)				(−2.487)
BODSIZE	−0.198	−0.118	−0.228	−0.147	−0.057	0.072	−0.128	−0.005
	(−0.578)	(−0.338)	(−0.666)	(−0.424)	(−0.484)	(0.615)	(−1.09)	(−0.038)
BODINDP	0.875	0.992	0.926	1.041	−0.054	0.107	−0.055	0.101
	(1.321)	(1.498)	(1.377)	(1.551)	(−0.235)	(0.469)	(−0.242)	(0.441)
ACMEM	−0.021	0.026	0.042	0.086	0.052	0.109*	0.027	0.078
	(−0.125)	(0.156)	(0.234)	(0.503)	(0.819)	(1.689)	(0.311)	(1.199)
ACINDEP	0.033	−0.005	−0.018	−0.056	−0.057	−0.105	−0.016	−0.066
	(0.188)	(−0.025)	(−0.098)	(−0.305)	(−0.812)	(−1.48)	(−0.224)	(−0.943)
ACEXPERT	0.047	0.034	0.031	0.017	0.005	−0.013	0.009	−0.009
	(0.407)	(0.296)	(0.268)	(0.147)	(0.124)	(−0.352)	(0.248)	(−0.237)
AUDFEE	0.093	0.098	0.096	0.121	0.077**	0.083**	0.093***	0.098***
	(0.921)	(0.973)	(0.972)	(1.016)	(2.163)	(2.365)	(2.639)	(2.797)
ARL	−0.001	−0.001	−0.001	−0.002	0.001	0.001	0.001	0.001
	(−0.715)	(−0.801)	(−0.818)	(−0.889)	(0.597)	(0.576)	(0.65)	(0.599)
LEV	0.932**	0.905*	1.041**	1.008**	0.278	0.267	0.162	0.147
	(2.017)	(1.942)	(2.285)	(2.192)	(1.313)	(1.258)	(0.775)	(0.666)
SIZE	0.036	0.041	0.002	0.006	0.002	0.006	−0.007	−0.004
	(0.474)	(0.538)	(0.024)	(0.083)	(0.003)	(0.224)	(−0.257)	(−0.138)
ZSCORE	0.005	0.006	−0.002	0.001	0.011	0.012	0.008	0.008
	(0.107)	(0.142)	(−0.052)	(−0.003)	(0.826)	(0.855)	(0.568)	(0.598)
LOSS	0.011	0.012	−0.024	−0.023	0.036	0.039	0.053	0.052
	(0.041)	(0.051)	(−0.101)	(−0.095)	(0.465)	(0.504)	(0.691)	(0.675)
BIG4	−0.465**	−.0455**	−0.517**	−0.504**	−0.032	−0.018	−0.072	−0.062
	(−2.236)	(−2.216)	(−2.522)	(−2.478)	(−0.383)	(−0.225)	(−0.925)	(−0.802)
GCOPIN	−0.196	−0.185	−0.163	−0.158	−0.102	−0.093	−0.076	−0.064
	(−0.592)	(−0.556)	(−0.488)	(−0.472)	(−0.827)	(−0.747)	(−0.614)	(−0.512)
INDUSTRY	YES	YES	YES	YES	YES	YES	YES	YES
YEAR	No	No	No	No	No	No	No	No
Observations	1686	1686	1686	1686	4722	4722	4722	4722
LR Chi^2	33.52	37.45	32.71	35.16	153.93	181.15	109.65	138.30
Pseudo R^2	0.026	0.027	0.026	0.027	0.027	0.031	0.025	0.024
Prob.	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Note: *z*-statistics are in parenthesis. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$. Standard errors are clustered by firm and year.

board committee memberships for AC members or encouraging share ownership requirements. Moreover, the study examines whether allowing AC members to hold shares can enhance financial reporting quality by reducing financial restatements; it also provides evidence of the beneficial effect of granting share ownership to AC members. Second, the findings of this study reveal that the negative effect of a busy AC should not be overlooked. Specifically, the study shows that firms are more likely to engage in financial restatement when AC members are busy with external directorships. However, this negative effect can be mitigated when AC members own shareholdings that align their interests with those of shareholders. Finally, the results empirically reinforce

the concerns raised by regulators and academic research that the effectiveness of AC is compromised when AC members hold multiple external board memberships. By showing that busy AC members are less effective at preventing financial restatement, this study emphasises the need for increased attention to AC workloads and suggests that regulators should consider implementing guidelines on limiting or determining the optimal number of board memberships that AC members can hold.

While this study provides insights into the relationship between AC busyness and share ownership, it is important to acknowledge the limitations of our research and consider them as opportunities for future research. One potential limitation of this study is the biased sample selection: data from the SIRCA database reasonably covers only large firms. Corporate governance practices in mid- or small-sized firms may differ from those in larger firms, affecting the relationship between busyness and share ownership. Future research could explore mid- or small-sized firms to understand this association better and identify any additional factors that may moderate or mediate these effects. Additionally, this study does not consider the relationship between AC busyness and financial reporting quality for AC members holding leadership roles, such as the chair of the AC or other subcommittees. Further research could identify, for example, the optimal number of board or AC appointments for individuals who hold leadership roles. Further, future research could also examine whether it matters how many leadership roles are held by an AC member and how this role differs for a large, complex firm in financial distress versus a simple, stable and established firm.

Additionally, the findings of this study extend international research in the context of a different corporate governance system. This extension may provide additional policy implications for regulators, directors and investors interested in improving corporate governance practices and enhancing financial reporting quality. Finally, it is worth noting that the one-size-fits-all approach may not be appropriate for good corporate governance practice (Coles et al. 2008; Anderson and Gupta 2013). Therefore, our findings support the call for context-specific policies and guidelines, particularly on AC members' share ownership which is not apparent in the ACG.

Acknowledgements

We thank the associate editor and two anonymous reviewers for their constructive comments in an earlier version of this manuscript. Also, we thank Xuan Sun for his generous research assistance and support in the early stage of this research to source relevant data.

Open access publishing facilitated by Massey University, as part of the Wiley - Massey University agreement via the Council of Australian University Librarians.

Notes

1 The incentive alignment effect indicates aligning the interest of AC members with share ownership to ensure that AC members have a personal stake in the firm's success, leading to greater diligence by them in their oversight duties while maintaining their independence.

2 The entrenchment effect suggests that managers with high levels of ownership in a firm are more likely to make decisions that benefit themselves at the expense of other shareholders (see Habib et al. 2021b).

3 According to the *Australian Corporations Act 2001*, s.9, substantial holding 'is 5% or more of the total number of votes attached to voting shares in the body or interests in the scheme or fund'. See https://www.legislation.gov.au/Details/C2019C00216. Thus, in the Australian context, owning 5% or more shares represents one form of material interest.

4 The ACG was issued for the first time in 2003. It was later revised in 2010 and 2014. The current version of corporate governance principles and recommendations was issued in 2019 (4th edition) and largely remains unchanged regarding the AC's roles, scope of operation and composition.

5 Prior research in corporate governance suggests insider ownership as a remedy for agency problems from ownership-control separation. Oswald and Jahera (1991) link director/officer ownership to firm performance, while Mehran (1995) correlates manager equity with performance. Morck et al. (1988), McConnell and Servaes (1990), Wong and Yek (1991) and Poh (1991) note a non-linear relationship between ownership structure and market valuation. Specifically, McConnell and Servaes (1990) highlight a significant curvilinear link between Tobin's Q and insider-owned common stock. Lilenfeld-Toal and Ruenzi (2014) show that firms with high CEO ownership have higher stock market returns than firms with low ownership.

6 Our study period is limited to 2015 because SIRCA ceased providing corporate governance data after that year. Despite the implementation of the latest ASX Corporate Governance Council Corporate Governance Principles and Recommendation, the principles regarding ACs' purpose, scope of operation and composition have remained largely unchanged since the introduction of the 2003 ACG.

7 GC opinion indicates significant uncertainty regarding a firm's ability to sustain its operations and suggests that the firm lacks the financial stability required to continue operations in the foreseeable future, potentially even beyond the upcoming financial period.

8 We develop three models that estimate the abnormal levels of CFO, production costs and discretionary expenses. We follow a similar approach by taking the difference between the actual levels and the estimated normal levels to obtain the proxies (abnormal cash flow from operating activities, abnormal production cost and abnormal discretionary expenses) for the dependent variable REM. Low values of the residuals for abnormal cash flow from operating activities, abnormal production cost and abnormal discretionary expenses are usually interpreted as indicative of high *REM*. The values are thus multiplied by −1, where a higher (lower) value indicates higher (lower) *REM*.

9 We thank the anonymous reviewer for suggesting this test.

10 We thank the anonymous reviewer for suggesting this alternative test. In addition, we find that our findings are consistent across the seven different sectors (e.g., energy, materials, industrial,

consumer discretionary, consumer staples, information technology and real estate sectors). We refer to Table 1 (Panel B) for details on the global industry classification standard (GICS) code.

References

Abbott, L.J., Park, Y. and Parker, S. 2000, 'The Effects of Audit Committee Activity and Independence on Corporate Fraud', *Managerial Finance*, 26 (11): 55–68.

Ahn, T.S., Hwang, I. and Kim, M.I. 2010, 'The Impact of Performance Measure Discriminability on Ratee Incentives', *The Accounting Review*, 85 (2): 389–417.

Aldamen, H. and Duncan, K. 2016, 'Does Good Corporate Governance Enhance Accruals Quality During Financial Crises?', *Managerial Auditing Journal*, 31 (4/5): 434–57.

Aldamen, H., Duncan, K., Kelly, S., McNamara, R. and Nagel, S. 2012, 'Audit Committee Characteristics and Firm Performance During the Global Financial Crisis', *Accounting & Finance*, 52 (4): 971–1000.

Alzeban, A. 2020, 'The Impact of Audit Committee, CEO, and External Auditor Quality on the Quality of Financial Reporting', *Corporate Governance: The International Journal of Business in Society*, 20 (2): 263–79.

Anderson, A.M. and Gupta, P.P. 2013, 'Corporate Governance: Does One Size Fit All?', *Journal of Corporate Accounting & Finance*, 24 (3): 51–64.

Archambeault, D.S., DeZoort, F.T. and Hermanson, D.R. 2008, 'Audit Committee Incentive Compensation and Accounting Restatements', *Contemporary Accounting Research*, 25 (4): 965–92.

ASX Corporate Governance Council. 2019, *Corporate Governance Principles and Recommendations* (4th ed.), ASX Corporate Governance Council, Sydney.

Baxter, P. and Cotter, J. 2009, 'Audit Committees and Earnings Quality', *Accounting & Finance*, 49 (2): 267–90.

Beasley, M.S. 1996, 'An Empirical Analysis of the Relation Between the Board of Director Composition and Financial Statement Fraud', *The Accounting Review*, 71 (4): 443–65.

Beasley, M.S., Carcello, J.V., Hermanson, D.R. and Lapides, P.D. 2000, 'Fraudulent Financial Reporting: Consideration of Industry Traits and Corporate Governance Mechanisms', *Accounting Horizons*, 14 (4): 441–54.

Bédard, J., Chtourou, S.M. and Courteau, L. 2004, 'The Effect of Audit Committee Expertise, Independence, and Activity on Aggressive Earnings Management', *Auditing: A Journal of Practice & Theory*, 23 (2): 13–35.

Bédard, J. and Gendron, Y. 2010, 'Strengthening the Financial Reporting System: Can Audit Committees Deliver?', *International Journal of Auditing*, 14 (2): 174–210.

Bhuiyan, M.B.U. and D'Costa, M. 2020, 'Audit Committee Ownership and Audit Report Lag: Evidence From Australia', *International Journal of Accounting & Information Management*, 28 (1): 96–125.

Bravo, F. and Reguera-Alvarado, N. 2019, 'Sustainable Development Disclosure: Environmental, Social, and Governance Reporting and Gender Diversity in the Audit Committee', *Business Strategy and the Environment*, 28 (2): 418–29.

BRC. 1999, 'Report and Recommendations of the Blue Ribbon Committee on Improving the Effectiveness of Corporate Audit Committees', *The Business Lawyer*, 1067–95.

Campa, D. and Donnelly, R. 2016, 'Non-Audit Services Provided to Audit Clients, Independence of Mind and Independence in Appearance: Latest Evidence From Large UK Listed Companies', *Accounting and Business Research*, 46 (4): 422–49.

Campbell, J.L., Downes, J.F. and Schwartz, W.C. 2015, 'Do Sophisticated Investors Use the Information Provided by the Fair Value of Cash Flow Hedges?', *Review of Accounting Studies*, 20 (2): 934–75.

Carcello, J.V. and Neal, T.L. 2003, 'Audit Committee Characteristics and Auditor Dismissals Following "New" Going-Concern Reports', *The Accounting Review*, 78 (1): 95–17.

Choi, J.-H., Kim, J.-B. and Lee, J.J. 2011, 'Value Relevance of Discretionary Accruals in the Asian Financial Crisis of 1997–1998', *Journal of Accounting and Public Policy*, 30 (2): 166–87.

Cohen, D.A., Dey, A. and Lys, T.Z. 2008, 'Real and Accrual-Based Earnings Management in the Pre-and Post-Sarbanes-Oxley Periods', *The Accounting Review*, 83 (3): 757–87.

Coles, J.L., Daniel, N.D. and Naveen, L. 2008, 'Boards: Does One Size Fit All?', *Journal of Financial Economics*, 87 (2): 329–56.

Cullinan, C.P., Du, H. and Jiang, W. 2010, 'Is Compensating Audit Committee Members With Stock Options Associated With the Likelihood of Internal Control Weaknesses?', *International Journal of Auditing*, 14 (3): 256–73.

Dalton, D.R., Daily, C.M., Certo, S.T. and Roengpitya, R. 2003, 'Meta-Analyses of Financial Performance and Equity: Fusion or Confusion?', *Academy of Management Journal*, 46 (1): 13–26.

De Vlaminck, N. and Sarens, G. 2015, 'The Relationship Between Audit Committee Characteristics and Financial Statement Quality: Evidence From Belgium', *Journal of Management & Governance*, 19: 145–66.

DeAngelo, L.E. 1981, 'Auditor Size and Audit Quality', *Journal of Accounting and Economics*, 3 (3): 183–99.

DeFond, M. and Zhang, J. 2014, 'A Review of Archival Auditing Research', *Journal of Accounting and Economics*, 58 (2-3): 275–326.

DeFond, M.L. and Jiambalvo, J. 1991, 'Incidence and Circumstances of Accounting Errors', *The Accounting Review*, 66 (3): 643–55.

Deslandes, M., Fortin, A. and Landry, S. 2020, 'Audit Committee Characteristics and Tax Aggressiveness', *Managerial Auditing Journal*, 35 (2): 272–93.

DeZoort, F.T. 1998, 'An Analysis of Experience Effects on Audit Committee Members' Oversight Judgments', *Accounting, Organizations and Society*, 23 (1): 1–21.

Engel, E., Hayes, R.M. and Wang, X. 2010, 'Audit Committee Compensation and the Demand for Monitoring of the Financial Reporting Process', *Journal of Accounting and Economics*, 49 (1–2): 136–54.

Fama, E.F. and Jensen, M.C. 1983, 'Separation of Ownership and Control', *The Journal of Law and Economics*, 26 (2): 301–25.

Feng, Z.Y. and Huang, H.W. 2021, 'Corporate Governance and Earnings Management: A Quantile Regression Approach', *International Journal of Finance & Economics*, 26 (4): 5056–72.

Fich, E.M. and Shivdasani, A. 2007, 'Financial Fraud, Director Reputation, and Shareholder Wealth', *Journal of Financial Economics*, 86 (2): 306–36.

Field, L., Lowry, M. and Mkrtchyan, A. 2013, 'Are Busy Boards Detrimental?', *Journal of Financial Economics*, 109 (1): 63–82.

Ghafran, C. and O'Sullivan, N. 2013, 'The Governance Role of Audit Committees: Reviewing a Decade of Evidence', *International Journal of Management Reviews*, 15 (4): 381–407.

Ghafran, C., O'Sullivan, N. and Yasmin, S. 2022, 'When Does Audit Committee Busyness Influence Earnings Management in the UK? Evidence on the Role of the Financial Crisis and Company Size', *Journal of International Accounting, Auditing and Taxation*, 47: 100467.

Goodwin, J. and Wu, D. 2016, 'What is the Relationship Between Audit Partner Busyness and Audit Quality?', *Contemporary Accounting Research*, 33 (1): 341–77.

Gul, F.A., Ma, S. and Lai, K. 2017, 'Busy Auditors, Partner-Client Tenure, and Audit Quality: Evidence From an Emerging Market', *Journal of International Accounting Research*, 16 (1): 83–105.

Guo, Y., Delaney, D. and Ahmed, A. 2020, 'Is an Auditor's Propensity to Issue Going Concern Opinions a Valid Measure of Audit Quality?', *Australian Accounting Review*, 30 (2): 144–53.

Habbash, M., Sindezingue, C. and Salama, A. 2013, 'The Effect of Audit Committee Characteristics on Earnings Management: Evidence From the United Kingdom', *International Journal of Disclosure and Governance*, 10: 13–38.

Habib, A. and Bhuiyan, M.B.U. 2016, 'Overlapping Membership on Audit and Compensation Committees and Financial Reporting Quality', *Australian Accounting Review*, 26 (1): 76–90.

Habib, A., Bhuiyan, M.B.U. and Wu, J. 2021a, 'Corporate Governance Determinants of Financial Restatements: A Meta-Analysis', *The International Journal of Accounting*, 56 (01): 2150002.

Habib, A., Bhuiyan, M.B.U. and Wu, J.Y.H. 2021b, 'Audit Committee Ownership and the Cost of Equity Capital', *Managerial Auditing Journal*, 36 (5): 665–98.

Habib, A., Bhuiyan, M.B.U. and Islam, A. 2013, 'Financial Distress, Earnings Management and Market Pricing of Accruals During the Global Financial Crisis', *Managerial Finance*, 39 (2): 155–80.

Hambrick, D.C., Misangyi, V.F. and Park, C.A. 2015, 'The Quad Model for Identifying a Corporate Director's Potential for Effective Monitoring: Toward a New Theory of Board Sufficiency', *Academy of Management Review*, 40 (3): 323–44.

Harris, I.C. and Shimizu, K. 2004, 'Too Busy to Serve? An Examination of the Influence of Overboarded Directors', *Journal of Management Studies*, 41 (5): 775–98.

Heckman, J.J. 1979, 'Sample Selection Bias as a Specification Error', *Econometrica: Journal of the Econometric Society*, 47 (1): 153–61.

Hillman, A.J. and Dalziel, T. 2003, 'Boards of Directors and Firm Performance: Integrating Agency and Resource Dependence Perspectives', *Academy of Management Review*, 28 (3): 383–96.

Hines, C.S., Masli, A., Mauldin, E.G. and Peters, G.F. 2015, 'Board Risk Committees and Audit Pricing', *Auditing: A Journal of Practice & Theory*, 34 (4): 59–84.

Hua, S., Leauby, B.A. and Liu, Z. 2016, 'Busy Audit Committee Members and Internal Control Deficiencies', *International Journal of Corporate Governance*, 7 (2): 138–63.

Jensen, M.C. and Meckling, W.H. 1976, 'Theory of the Firm: Managerial Behavior, Agency Costs and Ownership Structure', *Journal of Financial Economics*, 3 (4): 305–60.

Jiraporn, P., Singh, M. and Lee, C.I. 2009, 'Ineffective Corporate Governance: Director Busyness and Board Committee Memberships', *Journal of Banking & Finance*, 33 (5): 819–28.

Karamanou, I. and Vafeas, N. 2005, 'The Association Between Corporate Boards, Audit Committees, and Management Earnings Forecasts: An Empirical Analysis', *Journal of Accounting Research*, 43 (3): 453–86.

Kashyap, S. and Iveroth, E. 2021, 'Transparency and Accountability Influences of Regulation on Risk Control: The Case of a Swedish Bank', *Journal of Management and Governance*, 25 (2): 475–508.

Keune, M.B. and Johnstone, K.M. 2015a, 'Audit Committee Incentives and the Resolution of Detected Misstatements', *Auditing: A Journal of Practice & Theory*, 34 (4): 109–37.

Keune, M.B. and Johnstone, K.M. 2015b, 'Audit Committee Incentives and the Resolution of Detected Misstatements', *Auditing: A Journal of Practice & Theory*, 34 (4): 109–37.

Khoo, E.S., Lim, Y. and Monroe, G.S. 2020, 'Audit Committee Members' Reputation Incentives and Their Effectiveness in Monitoring the Financial Reporting Process'', *Abacus*, 56 (3): 348–406.

Kiel, G.C. and Nicholson, G.J. 2006, 'Multiple Directorships and Corporate Performance in Australian Listed Companies', *Corporate Governance: An International Review*, 14 (6): 530–46.

Krishnamoorthy, G., Wright, A. and Cohen, J. 2002, 'Audit Committee Effectiveness and Financial Reporting Quality: Implications for Auditor Independence', *Australian Accounting Review*, 12 (28): 3–13.

Krishnan, J., Wen, Y. and Zhao, W. 2011, 'Legal Expertise on Corporate Audit Committees and Financial Reporting Quality', *The Accounting Review*, 86 (6): 2099–30.

Le, Q., Vafaei, A., Ahmed, K. and Kutubi, S. 2023, 'Busy Boards and Accounting Conservatism–An Australian Perspective', *Meditari Accountancy Research*, 31 (4): 970–1014.

Lin, J.W., Li, J.F. and Yang, J.S. 2006, 'The Effect of Audit Committee Performance on Earnings Quality', *Managerial Auditing Journal*, 21 (9): 921–33.

Lim, S., Matolscy, Z. and Show, D. 2007, 'The Association Between Board Composition and Different Types of Voluntary Disclosure', *European Accounting Review*, 16 (3): 555–83

Lilienfeld-Toal, U.V. and Ruenzi, S. 2014, 'CEO Ownership, Stock Market Performance, and Managerial Discretion', *The Journal of Finance*, 69 (3): 1013–50.

Lipton, M. and Lorsch, J. 1992, 'A Modest Proposal for Improved Corporate Governance', *The BusinessL Lawyer*, 48 (1): 59–77.

Liu, X., Lobo, G.J., Yu, H.-C. and Zheng, Z. 2023, 'Multiple Directorships and Audit Committee Effectiveness: Evidence From Effort Allocation', *European Accounting Review*, 32(5): 1273–1306.

Liu, X., Lobo, G.J. and Yu, H.C. 2021, 'Is Audit Committee Equity Compensation Related to Audit Fees?', *Contemporary Accounting Research*, 38 (1): 740–69.

Liu, X. and Yu, H.-C. 2018, 'How do Companies React to Restatements? – Evidence From Audit Committee Compensation', *Asia-Pacific Journal of Accounting & Economics*, 25 (5): 546–85.

Magilke, M.J., Mayhew, B.W. and Pike, J.E. 2009, 'Are Independent Audit Committee Members Objective? Experimental Evidence', *The Accounting Review*, 84 (6): 1959–81.

Mangena, M. and Pike, R. 2005, 'The Effect of Audit Committee Shareholding, Financial Expertise and Size on Interim Financial Disclosures', *Accounting and Business Research*, 35 (4): 327–49.

Mangena, M. and Tauringana, V. 2008, 'Audit Committees and Voluntary External Auditor Involvement in UK Interim Reporting', *International Journal of Auditing*, 12 (1): 45–63.

McConnell, J.J. and Servaes, H. 1990, 'Additional Evidence on Equity Ownership and Corporate Value', *Journal of Financial Economics*, 27 (2): 595–612.

McDaniel, L., Martin, R.D. and Maines, L.A. 2002, 'Evaluating Financial Reporting Quality: The Effects of Financial Expertise vs. Financial Literacy', *The Accounting Review*, 77 (s-1): 139–67.

Méndez, C.F., Pathan, S. and García, R.A. 2015, 'Monitoring Capabilities of Busy and Overlap Directors: Evidence From Australia', *Pacific-Basin Finance Journal*, 35: 444–69.

Mehran, H. 1995, 'Executive Compensation Structure, Ownership, and Firm Performance', *Journal of Financial Economics*, 38 (2): 163–184.

Menon, K. and Williams, J.D. 1994, 'The Use of Audit Committees for Monitoring', *Journal of Accounting and Public Policy*, 13 (2): 121–39.

Mizruchi, M.S. 1996, 'What Do Interlocks Do? An Analysis, Critique, and Assessment of Research on Interlocking Directorates', *Annual Review of Sociology*, 22 (1): 271–98.

Mollik, A.T., Mir, M., McIver, R. and Bepari, M. 2020, 'Effects of Audit Quality and Audit Committee Characteristics on Earnings Management During the Global Financial Crisis–Evidence From Australia', *Australasian Accounting, Business and Finance Journal*, 14 (4): 85–115.

Monks, R. and Minow, N. 2011, *Corporate Governance* (5th ed.), Wiley, Cambridge, MA.

Morck, R., Shleifer, A. and Vishny, R.W. 1988, 'Management Ownership and Market Valuation: An Empirical Analysis', *Journal of Financial Economics*, 20: 293–315.

Naiker, V., Navissi, F. and Truong, C. 2013, 'Options Trading and the Cost of Equity Capital', *The Accounting Review*, 88 (1): 261–95.

Naiker, V. and Sharma, D.S. 2009, 'Former Audit Partners on the Audit Committee and Internal Control Deficiencies', *The Accounting Review*, 84 (2): 559–87.

National Association of Corporate Directors (NACD). 2003, '*Director Compensation Survey 2002–2003*', NACD, Washington, DC.

Neville, F., Byron, K., Post, C. and Ward, A. 2019, 'Board Independence and Corporate Misconduct: A Cross-National Meta-Analysis', *Journal of Management*, 45 (6): 2538–69.

Organisation for Economic Co-operation and Development. 2021, Corporate Governance Factbook 2021. Available at: https://www.oecd.org/corporate/OECD-Corporate-Governance-Factbook.pdf, accessed 4 June 2023.

Okazaki, T., Sawada, M. and Yokoyama, K. 2005, 'Measuring the Extent and Implications of Director Interlocking in the Prewar Japanese Banking Industry', *The Journal of Economic History*, 65 (4): 1082–115.

Oswald, S.L. and Jahera Jr, J.S. 1991, 'The Influence of Ownership on Performance: An Empirical Study', *Strategic Management Journal*, 12 (4): 321–26.

Poh, L.C. 1991, A Study of the Relationship Between Board Ownership and Corporate Performance with a Control of Size Effect, Bachelor's Thesis, National University of Singapore, Singapore.

Rezaee, Z., Olibe, K.O. and Minmier, G. 2003, 'Improving Corporate Governance: The Role of Audit Committee Disclosures', *Managerial Auditing Journal*, 18 (6/7): 530–37.

Romanus, R.N., Maher, J.J. and Fleming, D.M. 2008, 'Auditor Industry Specialization, Auditor Changes, and Accounting Restatements', *Accounting Horizons*, 22 (4): 389–413.

Rose, A.M. and Rose, J.M. 2008, 'Management Attempts to Avoid Accounting Disclosure Oversight: The Effects of Trust and Knowledge on Corporate Directors' Governance Ability', *Journal of Business Ethics*, 83: 193–205.

Roychowdhury, S. 2006, 'Earnings Management Through Real Activities Manipulation', *Journal of Accounting and Economics*, 42 (3): 335–70.

Safari Gerayli, M., Rezaei Pitenoei, Y. and Abdollahi, A. 2021, 'Do Audit Committee Characteristics Improve Financial Reporting Quality in Emerging Markets? Evidence From Iran', *Asian Review of Accounting*, 29 (2): 251–67.

Sarkar, J., Sarkar, S. and Sen, K. 2008, 'Board of Directors and Opportunistic Earnings Management: Evidence From India', *Journal of Accounting, Auditing & Finance*, 23 (4): 517–51.

Schrader, C.L. and Sun, H.-L. 2019, 'How Does the Type of Equity Compensation of Audit Committee Affect Audit Fees?', *Advances in Accounting*, 45: 100411.

Sharma, D.S., Sharma, V.D., Tanyi, P.N. and Cheng, X. 2020, 'Should Audit Committee Directors Serve on Multiple Audit Committees? Evidence From Cost of Equity Capital', *Auditing: A Journal of Practice & Theory*, 39 (2): 185–205.

Sharma, V.D. and Iselin, E.R. 2012, 'The Association Between Audit Committee Multiple-Directorships, Tenure, and Financial Misstatements', *Auditing: A Journal of Practice & Theory*, 31 (3): 149–75.

Sil Kang, W., Kilgore, A. and Wright, S. 2011, 'The Effectiveness of Audit Committees for Low- and Mid-Cap Firms', *Managerial Auditing Journal*, 26 (7): 623–50.

Song, J. and Windram, B. 2004, 'Benchmarking Audit Committee Effectiveness in Financial Reporting', *International Journal of Auditing*, 8 (3): 195–205.

Sultana, N., Singh, H. and Rahman, A. 2019, 'Experience of Audit Committee Members and Audit Quality', *European Accounting Review*, 28 (5): 947–75.

Sun, J., Lan, G. and Liu, G. 2014, 'Independent Audit Committee Characteristics and Real Earnings Management', *Managerial Auditing Journal*, 29 (2): 153–72.

Tanyi, P.N. and Smith, D.B. 2015, 'Busyness, Expertise, and Financial Reporting Quality of Audit Committee Chairs and Financial Experts', *Auditing: A Journal of Practice & Theory*, 34 (2): 59–89.

Tham, Y.H., Sultana, N., Singh, H. and Taplin, R. 2019, 'Busy Boards and Earnings Management–An Australian Perspective', *Asian Review of Accounting*, 27 (3): 464–86.

Vafeas, N. 1999, 'Board Meeting Frequency and Firm Performance', *Journal of Financial Economics*, 53 (1): 113–42.

Wahab, E.A.A., Gist, W.E. and Majid, W.Z.N.A. 2014, 'Characteristics of Non-Audit Services and Financial Restatements in Malaysia', *Journal of Contemporary Accounting & Economics*, 10 (3): 225–47.

Wong, K.A. and Yek, T.C. 1991, 'Shareholdings of Board of Directors and Corporate Performance: Evidence from Singapore', *Pacific-Basin Capital Markets Research*, 2 (2): 211–25.

Wu, J., Habib, A., Weil, S. and Wild, S. 2018, 'Exploring the Identity of Audit Committee Members of New Zealand Listed Companies', *International Journal of Auditing*, 22 (2): 164–84.

Xie, B., Davidson III, W.N. and DaDalt, P.J. 2003, 'Earnings Management and Corporate Governance: The Role of the Board and the Audit Committee', *Journal of Corporate Finance*, 9 (3): 295–316.

Xu, Y., Carson, E., Fargher, N. and Jiang, L. 2013, 'Responses by Australian Auditors to the Global Financial Crisis', *Accounting & Finance*, 53 (1): 301–38.

Yang, J.S. and Krishnan, J. 2005, 'Audit Committees and Quarterly Earnings Management', *International Journal of Auditing*, 9 (3): 201–19.

Zalata, A. and Roberts, C. 2016, 'Internal Corporate Governance and Classification Shifting Practices: An Analysis of UK Corporate Behavior', *Journal of Accounting, Auditing & Finance*, 31 (1): 51–78.

Zang, A.Y. 2012, 'Evidence on the Trade-Off Between Real Activities Manipulation and Accrual-Based Earnings Management', *The Accounting Review*, 87 (2): 675–703.

Zmijewski, M.E. 1984, 'Methodological Issues Related to the Estimation of Financial Distress Prediction Models', *Journal of Accounting Research*, (22): 59–82.

Appendix

Variable definitions

Variable name	Definition
RESTATE	Restatement is a dummy variable with a value of one for firms that restated their annual financial statements and zero otherwise
ACBUSY	AC busyness, measured in *ACBUSYNUM* and *ACBUSYAVG*
ACBUSYNUM	Total number of external board directorships held by the AC members (i.e., the *total number of* external directorships by the AC)
ACBUSYAVG	Average number of external board directorships held by the AC member (i.e., *ACBUSYNUM divided by the total number of AC members*)
ACSHR	AC share ownership, measured in *ACSHRDUM* and *ACSHRPCT*
ACSHRDUM	AC share ownership, a dummy variable, coded one if AC members held share ownership, zero otherwise
ACSHRPCT	AC share ownership, % of the total number of shares owned by the AC members, calculated by the total number of shares owned divided by the total share outstanding in a firm year
BODSIZE	Board size, the natural logarithm of the total board size
BODINDP	Board independence is the ratio of the number of independent directors on the board to the total board size
ACMEM	Natural logarithm of the total AC size
ACIND	AC independence is the ratio of the total number of independent directors on the AC to the total size of the AC
ACEXPT	AC expertise, number of accounting and finance experts on the AC
AUDFEE	Audit fees, natural logarithm of total audit fees
ARL	Audit report lag, the natural logarithm of the difference between the number of calendar days from fiscal year-end to the date of the auditor's report
LEV	Leverage, the ratio of total debt to total assets
SIZE	Total assets, the logarithm of total assets
ZSCORE	Zmijewski (1984) model score. The Zmijewski model is based on several financial ratios: return on assets (ROA) (net income/total assets), financial leverage (FINL) (total debt/total assets) and liquidity (LIQ) (current assets/current debt). The formula of Zmijewski Model is as follows: $ZSCORE = -4.336 - 4.513\ (ROA) + 5.679\ (FINL) + 0.004\ (LIQ)$
LOSS	Profitability, a dummy variable, coded one if the firm has negative earnings before interest and tax and zer otherwise
BIG4	Auditor quality, dummy variable, coded one if the firm was audited by Big 4 auditors and zero otherwise
GCOPIN	Auditor going concern opinion, a dummy variable, coded one if the firm had a going concern audit opinion and zero otherwise