Implementation errors during the transition to the International Financial Reporting Standards, Chief Financial Officer's compensation and turnover and earnings quality metrics

Anna Loyeung

A thesis submitted in fulfilment of the requirements for the degree of

Doctor of Philosophy

2011

School of Accounting

The University of Technology, Sydney

CERTIFICATE OF AUTHORSHIP/ORIGINALITY

I certify that the work in this thesis has not previously been submitted for a degree nor has it been submitted as part of requirements for a degree except as fully acknowledged within the text.

I also certify that the thesis has been written by me. Any help that I have received in my research work and the preparation of the thesis itself has been acknowledged. In addition, I certify that all information sources and literature used are indicated in the thesis.

Signature of candidate

Production Note:
Signature removed prior to publication.

ACKNOWLEDGEMENTS

TABLES OF CONTENTS

Contents

LIST OF TABLES

APPENDICES

ABSTRACT

First, the thesis investigates the relation between the Chief Financial Officer's (CFO's) accounting talent, his/her compensation and his/her turnover. The thesis contends that accounting talent of the CFO can be measured by implementation errors, when a country moves to the International Financial Reporting Standards (IFRS) by adopting a "big bang" approach where all firms have to adopt IFRS within the same accounting period without the opportunity of early or late adoption. Eighteen different accounting errors are hand-collected for a sample of 280 Australian companies, which is used in constructing the CFO's accounting talent. The thesis finds (i) a positive relation between the CFO's accounting talent and the CFO's compensation ex-ante in the transition year, (ii) a positive relation between the CFO's accounting talent and the CFO's bonus compensation in the subsequent year (adoption year) and (iii) an inverse relation between the CFO's accounting talent and the CFO's turnover in the subsequent year (adoption year). Further tests on the Chief Executive Officer's (CEO's) accounting talent and the CEO's compensation and turnover and alternative specifications of our variables confirm our results. Overall the findings bring into question the outcomes of government intervention in setting executive compensation. Second, the thesis investigates the extent to which commonly used earnings quality metrics capture implementation errors. The metric used to measure implementation errors is the same as the measure used for the CFO's accounting talent. A positive relation is expected, between some commonly used earnings quality metrics and implementation errors as these metrics have been claimed to capture the extent to which earnings are calculated with errors. Ranging from highest to lowest in terms of explanatory power, from OLS regressions are: total accruals, earnings persistence, accruals quality and earnings predictability. Implementation errors in reported earnings however do not explain variations in "abnormal" accruals as estimated from a firm-specific time-series regressions of the modified Jones model and in earnings smoothness. Overall the results have implications for researchers and provide guidance regarding the appropriateness of earnings quality metrics selected in their research setting. The results also point to the fact that total accruals may be a "better" proxy for implementation errors compared to more "sophisticated" models.

CHAPTER 1

Introduction

1.1 Introduction

This thesis exploits a unique setting, where implementation errors are directly observable to address two research questions. First, the thesis examines the association between the Chief Financial Officer's (CFO's) accounting talent, the CFO's compensation levels and the CFO's turnover. The CFO's accounting talent is measured in terms of implementation errors in reported earnings. Second, the thesis evaluates some commonly used earnings quality metrics, by investigating the association between these metrics and implementation errors in reported earnings.

1.2 Motivation for the research

There are three motivations for this thesis. First, the transition to the IFRS in Australia represents a unique experimental setting where implementation errors can be observed. The ability to observe implementation errors is made possible due to the requirements of two accounting standards. For financial year commencing on or after 1 January 2004 Australian firms were required to provide financial statement users with financial reports based on the Australian Generally Accepted Accounting Principles (GAAP). In addition, the Australian Accounting Standard Board (AASB) 1047 "Disclosing the Impacts of Adopting A-IFRS" required Australian firms to provide a reconciliation of their earnings based on the Australian GAAP to their earnings based on the IFRS. The thesis refers to this reporting cycle as the transition year. Furthermore, for financial year commencing on or after 1 January 2005

Australian firms were required to provide financial statements users with the current year's and the prior year's financial reports based on IFRS. AASB 1 "First-Time Adoption of A-IFRS" required firms to disclose the same reconciliation of their transition year's earnings under GAAP to their transition year's earnings under IFRS. The thesis refers to this reporting cycle as the adoption year. Critically, the requirements of these two accounting standards resulted in the calculation of the same IFRS earnings twice. While there were expectations that these two earnings numbers be the same in the transition year and in the adoption year, many Australian firms had to re-state previously disclosed IFRS earnings in the transition year. This thesis labels the difference between estimated IFRS earnings in the transition year and the re-stated IFRS earnings in the adoption year as, implementation errors.

The second motivation of this thesis is to exploit this unique IFRS setting to provide further insights into the role of the CFOs, their compensation levels and the likelihood of having their employment terminated. Empirical findings on the consequences of the CFO's ability to excel at his/her financial reporting duties are limited to instances of extreme cases of accounting failures (e.g. restatements or fraud). This thesis adds to this body of research by focusing on a measure of the CFO's accounting talent that is less extreme than accounting failures. In particular this thesis focuses on implementation errors as a measure of the CFO's accounting talent.

The thesis contends that the CFO's accounting talent can be measured by implementation errors for three reasons. First, the CFO is ultimately in charge and therefore held responsible for errors in the financial reporting process. This role was re-emphasised by recent regulatory changes (e.g. the enactment of the Sarbanes Oxley Act (2004) in the United States and the ASX Principles of Good Corporate Governance Best Practice Recommendations (2003 and

2007 in Australia). In particular, CFOs are now required to personally "state in writing to the board that the company's financial reports present a true and fair view, in all material respects, of the company's financial condition and that operational results are in accordance with the relevant accounting standards" (ASXGCGBPR 2007, recommendation 4.1). Second, the thesis contends that when a country moves to the IFRS by adopting a "big bang" approach this creates an opportunity to measure the CFO's accounting talent. This is because, all CFOs are in the same race at the same time. Therefore, there is no issue of late adopters learning from the experience of earlier adopters, nor the issue of early adopters self-selecting.[1] This is consistent with Mayer's (1960) definition of talent, which is the ability to complete a given task successfully, in a given period of time. In addition the Australian Securities and Investment Commission (ASIC) played an active role prior to and during the transition to IFRS and warned Australian companies that failure to be prepared for the IFRS requirements may result in breach of financial reporting requirements of the Act.[2] As such, the thesis contends that, Australian companies and those involved in the financial reporting process, the CFOs, had incentives to disclose the most accurate IFRS earnings during the transition year.

The third motivation of this thesis comes from the need to validate commonly used earnings quality metrics. The current trend in accounting research has been to adopt earnings quality metrics in a more generic sense without any explanation on the appropriateness of the earnings quality metric/s selected. In their review paper Dechow, Ge and Schrand (2010) call

---

[1] The Australian setting can be contrasted with the European setting, whereby prior to the adoption of IFRS, the application of IFRS was voluntary in Europe.

[2] The ASIC website has numerous media releases relating to the transition to IFRS starting two years prior to the transition year. These include guidance on how to prepare the reconciliation of GAAP to the IFRS numbers (ASIC 22 April 2004) and warnings to companies and those involved in the financial reporting process to be prepared by having the appropriate accounting systems and procedures in place to ensure an effective transition to IFRS (ASIC 21 October 2003). Overall the aim of these media releases was to ensure high quality financial reporting in Australia, to promote investor protection and market confidence.

for researchers to focus on better understanding the extent to which these metrics capture the fundamental characteristics of firms and the extent to which they capture implementation errors. While much is known on the extent to which these earnings quality metrics are affected by the firm's fundamental characteristics (e.g, Dechow et al. 2010), little is known on the extent to which these metrics are affected by implementation errors in reported earnings. The reason why empirical research is limited in that area is because it is problematic to separate intentional errors from implementation errors. A notable exception is Hennes, Leone and Miller (2008). In their study they carefully reclassify accounting restatements into implementation errors and intentional errors to investigate the likelihood of the Chief Executive Officer's (CEO's) and the CFO's turnover. This thesis aims to address the concerns raised by Dechow, Ge and Schrand (2010) that more work needs to be undertaken on the extent to which implementation errors affect the quality of earnings. This is done by exploiting a unique Australian setting whereby implementation errors in reported earnings are directly observable. Given the lack of evidence of contracts being written based on estimated IFRS earnings in the transition year, the thesis argues that the implementation errors are the output of unintentional accounting errors as opposed to intentional errors.

1.3 Key findings

Evidence of this study is based on Australian companies taken from the S&P ASX Top 500 during the fiscal year ending 2005 (the transition year). The data for the CFO's accounting talent/implementation errors is hand-collected from financial statements. First, eighteen sources of implementation errors are identified. The CFO's accounting talent/implementation errors are calculated as the absolute value of each of the eighteen errors scaled by total assets. Firm's financial characteristics are obtained from the Aspect Huntley database, corporate

governance data and CFO's characteristics are obtained from the "UTS-Accenture Who Governs Australia" database.

Chapter 2 provides evidence on a positive relation between the CFO's accounting talent and the CFO's compensation levels awarded in the transition year (total compensation, base compensation and cash compensation). Moreover, in the subsequent year, when IFRS implementation errors are reported, more talented CFOs obtained higher cash bonuses compared to less talented CFOs. These compensation premiums of talented CFOs indicate that the board of directors are able to identify and remunerate talent in a manner that is consistent with the implications of agency theory and efficient contracting. Finally, Chapter 2 suggests that talented CFOs are more likely to be retained by the firms compared to less talented CFOs. Taken together, the findings are consistent with the predictions derived from the analytical framework based on an efficient labour market for executives.

Chapter 3 evaluates some commonly used earnings quality metrics in the accounting literature (total accruals, "abnormal" accruals, accruals quality, earnings persistence, earnings predictability and earnings smoothness) by investigating the extent to which these metrics are explained by implementation errors. Ranging from highest to lowest in terms of explanatory power, from OLS regressions are: total accruals, earnings persistence, accruals quality and earnings predictability. Implementation errors in reported earnings however, fail to explain variations in "abnormal" accruals as estimated from firm-specific time-series regressions of the modified Jones model and earnings smoothness.

1.4 Contribution of the Research

The thesis contributes to the accounting literature and to accounting practice in several ways. First the thesis contributes to the emerging literature on CFO compensation by documenting an association between the CFO's accounting talent and the CFO's compensation levels. Second, the thesis provides some evidence that has implications for regulators and government around the world. A common view in the regulatory and public domain is that the labour market for executives has failed, whereby executives are overpaid and whereby executives' compensation levels do not reflect performance.[3] Contrary to this view, the findings of this thesis are consistent with existing theories in the analytical literature, that, the observed level of compensation is a reflection of the executive's talent (Mayer 1960; Rosen 1982). These results may suggest that regulatory interventions to either cap or reduce executive compensation could disrupt the efficient operation of the executive labour market and may lead to unintended consequences, as far as CFOs are concerned. For instance, imposing pay restrictions on CFOs could potentially force them to move to private firms.

Furthermore, the thesis provides evidence that should guide researchers in their choice of earnings quality metrics that best suit/s their hypothesised form. For example, accounting researchers investigating instances of pure accounting errors would not be advised to use "abnormal" accruals as measured by the modified Jones model and earnings smoothness as

---

[3] For example in the United States, the Obama administration claims that excessive compensation levels and compensation packages led to risky behaviour that has contributed to the world's financial crisis (Lengell 11 June 2009). Similar sentiments have been expressed in Australia and in Europe (Lannin 18 March 2009). In an attempt to fix what is perceived as a failure in the executive labour market in setting executive compensation, regulatory reforms are underway. For example, President Obama imposed salary caps on top executives that applied for assistance during the financial crisis as a first step in a larger strategy to reshape how Wall Street executives are paid. Furthermore shareholders are now given non-binding say on pay votes in Australia, UK and US (Graybow 22 July 2009). However, concerns have also been expressed, that companies stand to lose their most talented employees if they fail to pay them for what they are worth (Boles 10 January 2010; Martin 18 June 2009; Mason 4 November 2009).

these metrics fail to capture implementation errors in reported earnings. In addition, the findings of this thesis highlight that total accruals may be a more reasonable proxy for implementation errors in reported earnings compared to more "sophisticated" models (e.g. modified Jones model). This suggests that the modified Jones model might not adequately separate the "normal" component of total accruals from the "abnormal" component of total accruals and hence implementation errors might reside in the "normal" component of total accruals.

Results from this study also have implications for accounting standard setters, enforcers of accounting standards and monitors of accounting standards (ASIC), as well as educators (CPA and ICA), as they are interested in better understanding implementation errors. This thesis points to some of the accounting standards that are more likely to lead to errors, even in the absence of the managers' intent to misstate earnings.

While the transition to IFRS is a one-off event, this thesis contends that the results are not specific to the transition year. This is due to the fact that new accounting standards are constantly being implemented and existing accounting standards, revised. For example, three years after the implementation of the IFRS in Australia, there were significant changes made to AASB 3 "Business Combinations" and AASB 127 "Consolidated and Separate Financial Statements."

The remainder of this thesis is organized as follows. Chapter 2 examines (i) the association between the CFO's accounting talent and the CFO's compensation levels and (ii) the association between the CFO's accounting talent and the CFO's turnover. Chapter 3 evaluates some commonly used earnings quality metrics by investigating the association

between these metrics and implementation errors while Chapter 4 draws conclusions and reviews the limitations and identifies avenues for future research.

CHAPTER 2

The relation between the CFO's accounting talent, compensation and turnover

2.1   Introduction

There is an emerging literature investigating the impact of accounting errors on the Chief Financial Officer's (CFO's) compensation and turnover.[4] These studies rely primarily on restatement data that contains both implementation errors and irregularities. This chapter aims to build on these studies and focus on implementation errors. This chapter argues that implementation errors are the result of the CFO's ability to interpret and apply accounting standards and hence use implementation errors as a reasonable proxy for the CFO's accounting talent. The CFO's accounting talent is evaluated in a setting where all CFOs are required to reveal their talent simultaneously by interpreting and implementing a whole new set of accounting standards. Such a setting exists, when a country moves from its local Generally Accepted Accounting Principles (GAAP) to the International Financial Reporting Standards (IFRS). Accordingly, the objectives of this chapter are to (i) provide evidence on the association between the CFO's accounting talent and the CFO's compensation and (ii) provide evidence on the association between the CFO's accounting talent and the CFO's turnover.

The motivation for this chapter is twofold. First, a challenge identified in the extant literature is that it is inherently difficult to quantify executive talent. It is argued that CFOs' accounting talent can be observed when a country adopts IFRS with a "big bang" approach. The adoption

---

[4] For example Aier et al. (2005); Desai, Holgan and Wilkins (2006); Agrawal and Cooper (2007); Collins, Reitenga and Sanchez (2008); Hennes, Leone and Miller (2008); Feng et al. (2011).

of IFRS is a major accounting innovation and it has been suggested that successful transitioning to IFRS requires CFOs to have at least two years of exploring the differences between their local GAAP and IFRS, training staff and keeping board of directors, investors and lenders informed about how the transformation will affect their IT systems, internal controls and financial results. Furthermore, there is support for this being the responsibility of CFOs with the Sarbanes-Oxley (SOX) legislation (and similar legislation internationally) explicitly assigning responsibility for the financial report to the CFOs.[5] There is also evidence of conference calls and other announcements in the financial press by CFOs, which clearly indicate that CFOs were actively involved in the IFRS transition process (Geiger and North 2006; Indjejikian and Nanda 2002; Johnson 25 August 2010).[6] Additionally, by selecting the Australian setting where early adoption was not permitted, all companies had the same transition period. There is no issue of late adopters being able to learn from the experience of early adopters, nor is there a concern of early adopters self-selecting. Critically, all CFOs have been in the "same race" at the "same time." It is contended that IFRS implementation errors (after controlling for accounting complexity, other economic factors and corporate governance factors) provide an explicit cross-sectional proxy for the CFO's accounting talent during the IFRS transition period. This construct is used to test predictions based upon conjectures in the analytical literature that in an efficient labour market talent is the key determinant of executive compensation (Mayer 1960; Rosen 1981; Rosen 1982).

The second motivation is to build on the extant literature and provide further insight into the role of CFOs, their compensation and the likelihood of having their employment terminated.

---

[5] For example the Sarbanes Oxley Act (2004) in the US and the Good Corporate Governance Best Practice Recommendation of the Australian Stock Exchange (2003) require CFOs to personally acknowledge the contents of the financial statements, making them personally liable for accounting errors and/or irregularities.
[6] Both the academic and the financial press provide evidence on CFO's fiduciary obligations to produce financial reports. E.g. Indjejikian and Matejka (2009); Geiger and North (2006) for academic references and 'IFRS north of the border' (Johnson 25 August 2010) for the finance newspaper reference.

The evidence on the relation between the CFO's accounting talent, the CFO's compensation and the CFO's turnover is limited and the CFO's talent has been approximated by different accounting issues ranging from broad measures of accounting quality to extreme instances of accounting misstatements. Existing studies have typically focused on the relation between the CFO's enhanced responsibilities following SOX and compensation and to date there is evidence that the compensation of CFOs increased post-SOX due to increase in the CFOs' accountability (Indjejikian and Matejka 2009; Wang 2010). Further evidence is also provided on the CFO's compensation penalties (reduced bonuses and smaller equity grants) and the CFO's chance of forced dismissal for CFOs who fail to meet analysts' quarterly earnings. The results are stronger post-SOX period (Mergenthaler, Rajgopal and Srinivasan 2009). Evidence also suggests that the turnover of CFOs is greater in the presence of aggressive accounting practices or internal control weaknesses (Collins, Reitenga and Sanchez 2008; Desai, Hogan and Wilkins 2006; Li, Sun and Ettredge 2010). Furthermore, the compensation of CFOs is also reduced in the presence of internal control weaknesses (Indjejikian and Matejka 2009; Zamora 2009). This chapter adds to this body of research by focusing on the association of the CFO's compensation and the CFO's turnover and a measure of talent less extreme than accounting failure.

We argue that a talented CFO has both the technical ability and the incentives to perform. A talented CFO may want to signal his/her superior talent to the labour market by reducing uncertainty in the accounting outcomes, resulting in a more favourable assessment of the CFO's talent and the market value of the firm (Graham, Harvey and Rajgopal 2005; Trueman 1986; Vafeas 2009). These in turn can be expected to lead to more favourable compensation levels (Collins, Reitenga and Sanchez 2008; Hoitash, Hoitash and Johnstone 2009), reduced risks of turnover for the CFO (Arthaud-Day et al. 2006; Collins, Reitenga and

Sanchez 2008; Li, Sun and Ettredge 2010) and reduced cost of capital for the firm (e.g. Francis, Dhananjay and Olsson 2008).

Based on mostly hand collected data for a sample of 280 companies drawn from the S&P ASX Top 500 Australian firms during the fiscal year ending 2005 (the transition year), this chapter provides evidence on a positive relation between the CFO's accounting talent and the CFO's compensation levels (total compensation, base compensation and cash compensation) awarded in the transition year. The compensation premiums awarded to talented CFOs indicate that the board of directors are able to identify and remunerate talent in a manner that is consistent with the implications of agency theory and efficient contracting. Moreover, in the subsequent year, when IFRS implementation errors are reported, more talented CFOs obtain higher compensation bonuses than less talented CFOs. Furthermore, evidence suggests that talented CFOs are more likely to be retained by the firms than less talented CFOs. These results are consistent with the predictions derived from the analytical framework based on an efficient executive labour market.

This chapter contributes to both the academic literature and to the current debate on executive compensation. First, this chapter contributes to the emerging CFO compensation literature by focusing exclusively on "pure" accounting errors as a measure of the CFO's accounting talent. The importance of distinguishing between errors and irregularities is highlighted by Hennes, Leone and Miller (2008). They revisit the CEO/CFO turnover literature and show how the power of their tests is enhanced by clearly separating errors from irregularities. This chapter builds on their study by showing that in an efficient labour market CFOs are also likely to be dismissed in a timely manner when they report implementation errors as opposed to more extreme accounting problems.

Second, this chapter contributes to the general debate regarding executive compensation practices. The level of executive compensation is under intense scrutiny by the public and government bodies.[7] As a response to the perceived failure of the executive labour market in setting "efficient" compensation levels and structures, governments across the globe are proposing reforms to limit executives' compensation levels and to change the compensation structure of executives. The results suggest that regulatory intervention to either cap or reduce executive compensation contributes to this debate may disrupt the efficient operation of the executive labour market and may lead to unintended consequences. For instance, imposing pay restrictions on CFOs could potentially force talented CFOs to move to private firms.

The remainder of this chapter is organised as follows. Section 2.2 reviews existing theories and develops the hypotheses to be tested. Section 2.3 outlines the research design. Section 2.4 reports the results on the association between the CFO's accounting talent and compensation. Section 2.5 provides additional analyses and Section 2.6 concludes the chapter.

---

[7] For example Obama states "It's about changing a system where bad behaviour is rewarded so that we can hold CEOs accountable and make sure they're acting in a way that's good for their company, good for our economy and for America, not just good for themselves."

2.2   Literature review and theory development

2.2.1   *Relevant literature*

Underpinning much of the literature on executive compensation is agency theory and the assumption of an efficient labour market. Critically this framework suggests that compensation packages are designed to attract and retain talent (Holmstrom 1979; Raviv 1985), induce managerial effort (Hannan 2005; Jensen, Murphy and Wruck 2004) and minimise overall costs (Core, Holthausen and Larcker 1999; Jensen, Murphy and Wruck 2004; Raviv 1985; Trueman 1986).

Within this framework executive talent is critical and Mayer (1960) relies upon this to explain differences in compensation levels across firms, suggesting that greater talent leads to higher compensation. Furthermore, Rosen (1982) highlights the importance of talent, arguing that in efficient labour markets talented executives are assigned to top positions as their talent filters through the entire organisation, leading to higher compensation levels. Moreover, once the firms have attracted talented executives, compensation needs to be structured to ensure that the executives exert significant effort and realize their talent (Indjejikian and Nanda 2002). This can be achieved through incentives, which include short-term incentives such as annual bonuses as well as long-term incentives such as stock options.

Although much has been written about the role and compensation issues relating to CEOs (e.g. Bushman, Indjejikian and Smith 1996; Core, Holthausen and Larcker 1999; Murphy 1999), there is relatively little research examining this for CFOs. Unlike the CEO, the role of the CFO is primarily not operational management but rather that of financial management and the supervision of all the financial functions within an organisation. In particular, the

CFO is responsible for the implementation of the accounting standards and the preparation of the financial reports, a critical mechanism in contracting (Aier et al. 2005; Geiger and North 2006; Li, Sun and Ettredge 2010; Mian 2001; Vafeas 2009). This view was reinforced by the passage of the Sarbanes-Oxley Act (2004) in the United States and the ASX Principles of Good Corporate Governance and Best Practice (2003 and 2007) in Australia, which have further increased the responsibility and accountability of the CFO to the board of directors and all users of financial reports. In particular, it is now best practice for the CFOs to personally acknowledge in writing, to the board that the company's financial reports represent a true and fair view. Additionally, to ensure the integrity of the financial reports, the CFO is also responsible for establishing and maintaining internal controls and sound risk management systems and is required to report any deficiencies to the audit committee and the external auditor. This chapter argues that the ability to excel at these tasks is the result of the CFO's accounting talent.

Beyond the CFO's regulatory requirements to maintain the integrity of the financial reports, there are also forces in an efficient executive labour market that provide incentives for the CFOs to reveal their talents. For example more talented CFOs are less likely to engage in misreporting as they have more to lose in terms of their rewards and reputation compared to less talented CFOs (Fama 1980; Francis et al. 2008; Graham, Harvey and Rajgopal 2005; Trueman 1986).

By focusing on CFOs, rather the CEOs, is that it is easier to isolate that part of performance that is directly attributable to the CFO's performance.[8] In this instance it is implementation

---

[8] As CEOs are in charge of the operational management of the firm, prior studies have commonly viewed firm performance as the outcome of the CEOs talent (e.g. Core, Holthausen and Larcker 1999). However, firm performance captures a number of factors other than CEO talent (Bertrand and Mullainathan 2001; Kolev 2006).

errors as a measure the CFO's accounting talent. This is reflected in a number of empirical studies on the CFO's accounting talent, compensation levels and turnover. Hennes, Leone and Miller (2008) classify accounting restatements into errors and irregularities. They demonstrate that CFOs who made implementation errors are less likely to be dismissed than CFOs who committed accounting irregularities. Li, Sun and Ettredge (2010), report that firms take drastic actions and dismiss CFOs who report internal control weaknesses. Collins, Reitenga and Sanchez (2008) document that those CFOs of firms who restate earnings are more likely to be dismissed in the restatement years relative to a control firm. However, these CFOs are only penalised when there is a class action lawsuit against the firms, suggesting that increased public pressure on the board forces them to take disciplinary actions. Similar findings are reported by Arthaud-Day et al. (2006).

However, firms might not always resort to such costly actions, but, rather, might impose penalties on the compensation of those CFOs who maintain their position. As reported by, Hoitash, Hoitash and Johnstone (2009), CFOs who retain their positions after having disclosed internal control weaknesses receive compensation penalties. The monetary penalties are even more severe in firms that have stronger board structures. Collins, Reitenga and Sanchez (2008), also provide evidence of compensation penalties for firms that have intentionally distorted their accounting numbers. In particular Collins, Reitenga and Sanchez (2008) report that firms with aggressive reporting incur cash bonus penalties. However, the results are contingent on whether these firms have class action ligations against them.

This chapter aims to build on this literature, utilising a direct measure of the CFO's accounting talent based on their ability to undertake a major accounting innovation.

Critically, this can be determined for a broad cross-section of firms, rather than for a limited sample of extreme financial reporting failures.

2.2.2 Hypotheses development

The transition to IFRS in Australia was a major accounting innovation. CFOs were required to learn the new standards and were responsible for training staff, updating IT systems and educating users (i.e. boards, analysts, lenders and investors) of the expected impacts on the financial reports.[9] This was doubtless the greatest challenge facing CFOs during this period and the success in implementing these changes, or the errors in implementing IFRS, could reasonably be considered a measure of the CFO's accounting talent.

As part of the transition process Australian firms were required under AASB 1047, to disclose a reconciliation of their GAAP earnings to their IFRS earnings during the transition year. Furthermore, in the subsequent year, i.e. the adoption year, Australian firms were required under AASB 1 to provide the same disclosure as well as comparatives in the first set of financial reports under IFRS.[10] Although there was the expectation that the estimated earnings disclosed in the transition would mirror the actual earnings reported as comparatives in the adoption year, they proved to be very different for some firms. The differences in the estimated earnings in the transition year and the re-stated earnings in the adoption year were

---

[9] Insights regarding the transition to IFRS were gained through interviews with audit partners and IFRS trainers at a Big 4 audit firm. Both the academic and the financial press provide evidence on CFO's fiduciary obligations to produce financial reports. E.g. Indjejikian and Matejka (2009), Geiger and North (2006) for academic references and 'IFRS north of the border', CFO.com, 25 August 2010 for the finance newspaper reference.

[10] Since the announcement of the conversion to IFRS, ASIC provided a substantial amount of guidance relating to the reconciliation disclosure requirements of the IFRS. In a number of media releases ASIC encouraged companies and financial advisors to be prepared and warned them that failure to prepare for changes may result in breach of the financial reporting requirement of the Corporations Act (ASIC media release, 21 Oct 2003). Further ASIC released a guide to disclosing the impact of the new IFRS (ASIC media release, 22 April 2004). ASIC implicitly stated their view regarding good disclosure of the impact of adopting IFRS in order to minimize non-compliance.

mainly due to the incorrect application of accounting provisions (Goodwin, Ahmed and Heaney 2007). These differences are referred to as implementation errors and reflect the errors made by CFOs in forecasting the correct amount of accruals in the transition year.[11]

All other things being equal, it is expected that talented CFOs would report lower IFRS implementation errors because such CFOs (i) have an incentive to signal their superior talent in terms of their ability to anticipate the effect of the IFRS (Fama 1980; Trueman 1986; Francis et al. 2008; Graham, Harvey and Rajgopal 2005), (ii) have the accounting and financial expertise to understand the implications of the new accounting standards to their business models and (iii) took all the appropriate measures required to fulfil their financial reporting requirements in the given time (e.g. Aier et al. 2005; Geiger and North 2006; Hoitash, Hoitash and Johnstone 2009; Li, Sun and Ettredge 2010). Accordingly, the IFRS implementation errors provide a direct measure of the CFOs accounting talent as the extent of the CFO's failure to perform in a given task is observable.

If the executive labour market efficiently prices CFOs talent, ex ante, CFOs who successfully complete their IFRS requirements in the transition year receive higher compensation compared to CFOs who fail to successfully complete their IFRS reporting requirements in the transition year. This leads to the first hypothesis:

H_1: There is a positive relation between the CFO's accounting talent and the CFO's compensation levels in the transition year.

---

[11] The calculation of implementation errors is illustrated in Appendix 1

Because CFOs are typically on a fixed 3-5 year contracts, it is not likely that their base compensation would change from year to year beyond the original contractual agreement. Furthermore, because the annual bonuses do not represent a significant portion of the CFOs total compensation, one would not expect significant changes in CFOs' total compensation either from the transition year to the adoption year. On the other hand, annual bonuses provide CFOs with incentives to be more proactive during the transition to IFRS. Bonuses are rewards to those CFOs who performed as expected or realize their potential talent (Indjejikian and Matejka 2009). Accordingly the chapter expects that in the adoption year talented CFOs receive higher cash bonuses than less talented CFOs. This leads to the second hypothesis:

H_2: There is a positive relation between the CFO's accounting talent and the CFO's annual bonuses in the adoption year.

The extant literature argues that less talented CFOs who misreport earnings figures are more likely to be replaced. Desai, Hogan and Wilkins (2006) find increased turnover of executives following severe GAAP violations or revelations of corporate frauds. Hennes, Leone and Miller (2008), show that all accounting errors (both implementation errors and irregularities) are associated with ex-post CFO's turnover. On the other hand Beneish (1999), Person (2006) and Collins, Reitenga and Sanchez (2008) report little evidence of increased CFO's turnover.[12] It is plausible that the lack of findings in these studies is the result of the efficient assignment of talent across firms (Rosen 1981; Rosen 1982). In particular, the compensation levels are set in such a way that the firms get the talent they paid for. Furthermore, there may be a self-selection bias with firms who violate GAAP. Given the contention that the adoption

---

[12] The results documented by Collins, Reitenga and Sanchez (2008) only holds when the restatement triggers a class-action lawsuit from the shareholders.

of the IFRS represents a major accounting reporting change, that CFOs are in the same unbiased race at the same time and that CFOs are responsible for this change, it is expected that firms with low IFRS implementation errors are more likely to retain their CFOs than firms with large IFRS implementation errors. This leads to the third hypothesis:

H_3: *There is an inverse relation between the CFO's accounting talent and the CFO's turnover during the adoption year.*

The chapter provides evidence for these three hypotheses.

2.3   Research design

2.3.1   Sample and Data collection

Table 2.1 Panel A summarises the sample derivation and Table 2.1 Panel B provides information on the sample selected by GICS sector.

Table 2.1   **Sample attrition and industry breakdown.**

Panel A: Sample attrition.

Firms in the S&P/ASX Fortune 500 in 2005	500
Less:	
Firms with missing annual reports in 2005	(31)
Firms reporting in non-Australian GAAP	(15)
Firms that changed financial year ends	(4)
Firms with missing CFO data	(77)
Financial Firms	(70)
Firms with other missing data	(23)
Sample for testing H_1, H_2 and H_3 (see Tables 2.5, 2.6, 2.7, 2.8 and 2.9)	280

Panel B: GICS industry breakdown.

Industry	Number	Percentage
Consumer Discretionary & Staples	76	27.14%
Energy	25	8.93%
Health Care	36	12.86%
Industrial	50	17.86%
Information Technology	21	7.50%
Material	62	22.14%
Telecommunication Services	6	2.14%
Utilities	4	1.43%
Sample for testing H_1, H_2 and H_3 (see Tables 2.5, 2.6, 2.7, 2.8 and 2.9)	280	100%

Table 2.1 Panel A shows that the sample initially includes all firms in the S&P ASX Top 500 Australian firms for the year 2005. Deleted from the sample are: firms with missing annual reports in the transition year (31 firms), firms reporting in non-Australian GAAP (15 firms and firms that changed financial year ends (4 firms). Also deleted from the sample are firms with missing CFO data (77 firms), which includes missing CFO names and/or the CFO compensation details. Firms from the financial sector (70 firms), are deleted because they are subject to different governance and reporting requirements. Finally, deleted from the sample were firms with other missing data (23 firms). The final sample consists of 280 firms. Table 2.1 Panel B indicates that this sample is not dominated by any single industry group.

Table 2.2, provides descriptive statistics on the sources of IFRS adoption errors. The compensation variables are obtained from the "UTS-Accenture Who Governs Australia" database. Controls for firm characteristics are obtained from the Aspect Huntley database. The CFO's accounting talent measure is hand collected and calculated as detailed in

Appendix 1.[13] Examples of differences in the application of GAAP and IFRS are reported in

Appendix 2. CFO turnover data are also hand collected.

Table 2.2   **Descriptive statistics on IFRS errors.**

Accounting	Standards	Number of firms with an error	Absolute dollar value of errors (in thousands)	Average size of absolute value of errors
AASB 2	Share-Based Payment	145	124.3	0.86
AASB 3	Business Combinations	111	540.3	4.87
AASB 5	Assets Held For Sale	12	54.0	4.50
AASB 6	Exploration	3	18.7	6.23
AASB 112	Income Tax	171	925.1	5.41
AASB 116	Property, Plant and Equipment	51	97.9	1.92
AASB 117	Lease	48	59.7	1.24
AASB 118	Revenue	49	247.4	5.05
AASB 119	Employee Benefits	48	131.4	2.74
AASB 121	Functional Currency	29	105.6	3.64
AASB 123	Borrowings	13	48.5	3.73
AASB 128	Associates and Joint ventures	38	50.8	1.34
AASB 132 and 139	Financial Instruments	20	48.8	2.44
AASB 136	Impairment	42	468.8	11.16
AASB 137	Provisions, Contingent Liabilities and Assets	43	55.3	1.29
AASB 138	Intangible Assets	47	106.0	2.26
AASB 140	Investment Property	10	61.2	6.12
	Other Standards	96	649.5	6.77

The last column, "Average size of absolute value of errors" is equal to "Absolute dollar value of errors (in thousands)" divided by the "Number of firms with an error". The category "Other standards" includes instances where firms disclose other reconciliation without reference to any specific accounting standards.

Table 2.2 lists the eighteen sources of implementation errors. Seventeen sources of the errors

are related to specific standards. When firms do not disclose the source of the change in their

reconciliation tables, they are grouped into "other standards." The largest source of

---

[13] Appendix 1 uses the financial report for the year ended 30 June 2005 and the financial report for the year ended 30 June 2006 to illustrate the 'GAAP to IFRS' reconciliations disclosed by Australian firms in the transition year and in the adoption year.

implementation errors is from the application of AASB 112 Income Tax. AASB 112 Income tax also has the highest frequency of errors across firms. The large implementation errors and high frequency of implementation errors is driven by fact that, changes in profit and loss items and in balance sheet items that are caused by other standards also impact on the calculation of income tax expenses. The second most frequent errors are driven by the application of AASB 2 Share-Based Payments (145 errors). This standard represents a substantial departure from existing GAAP as prior to the adoption of AASB 2, there was no requirement to identify the expense associated with share-based payments, or to measure and recognise such transactions in the financial statements.

Conditional on having an IFRS error, the largest (absolute value) errors are related to the accounting for impairments and exploration, evaluation and development expenditure. The rules for impairments and exploration, evaluation and development expenditure are governed by AASB 136 and AASB 6 respectively and also represented a substantial departure from Australian GAAP.[14]

2.3.2 Experimental Design

The following OLS is used to examine the relation between the CFO's compensation levels and the CFO's accounting talent in the transition year (H_1).

---

[14] Appendix 2 provides examples of the differences across the implementation of the GAAP and the implementation of the IFRS.

Model 1:

$$COMPENSATION_{it} = \beta + \beta_1 TALENT_{it} + \beta_2 TA_{it} + \beta_3 ACC_{it} + \beta_4 ROA_{it-1} + \beta_5 P\_B_{it-1} + \beta_6 BSIZE_{it}$$
$$+ \beta_7 EXDIR_{it} + \beta_8 CPA_{it} + \beta_9 TENURE_{it} + \sum \beta_i IND_{it} + \varepsilon_i$$

(1)

H_2 is tested by the running the same OLS regressions, whereby the left-hand-side variable is the CFO's bonus compensation in the subsequent year.

Model 2:

$$BONUS_{it+1} = \beta + \beta_1 TALENT_{it} + \beta_2 TA_{it} + \beta_3 ACC_{it} + \beta_4 ROA_{it-1} + \beta_5 P\_B_{it-1} + \beta_6 BSIZE_{it}$$
$$+ \beta_7 EXDIR_{it} + \beta_8 CPA_{it} + \beta_9 TENURE_{it} + \sum \beta_i IND_{it} + \varepsilon_i$$

(2)

The dependent and independent variables used are defined below.

Model 1 uses four different measures of CFO compensation (COMPENSATION). The first dependent variables is the TOTAL, which is equal to the log of the CFO's total compensation as reported by the firm (sum of value of salary, bonus, long-term incentive payouts, the value of stock options granted during the year and other cash payments). The second dependent variable is BASE, which is equal to the log of the CFO's base salary. The third dependent variable is CASH which is equal to the log of the CFO's base salary, the annual bonuses and other short-term bonuses. The fourth dependent variable is $BONUS_t$ which is equal to the log of short-term bonuses.

In Model 2, both bonus compensation levels ($BONUS_{t+1}$) in the adoption year and change in bonus compensation are used as left-hand-side variable. Two measures are used to capture change in bonus compensation. The first measure is $\Delta BONUS$, which is equal to the change

24

in the CFO's bonus compensation in the adoption year divided by the total level of compensation (TOTAL). The second measure is ΔBONUSIV, which is an indicator variable, set to equal to one if there is an increase in the CFO's bonus compensation in the adoption year, zero otherwise.

The CFO's accounting talent proxy employed captures the extent to which a CFO successfully fulfils his/her financial reporting duty under the IFRS. For each of the eighteen categories identified in Table 2.2, the difference between the estimated IFRS earnings in the transition year and IFRS earnings restated in the adoption year is calculated. The absolute value of these differences is summed and scaled by size (TA).[15] The output is then multiplied by -1 for ease of explanation ($\sum \left| \dfrac{IFRS_{2006} - IFRS_{2005}}{TA} \right| \times (-1)$). Appendix 1 provides a demonstration of the calculation of the CFO's accounting TALENT.

The first set of controls relate to firms' economic characteristics that affect the CFO's compensation levels. To control for size, the log of total Assets (TA) is used. This is because large firms pay their executives more than small firms (Conyon 2006; Manne 1965; Mayer 1960; Rosen 1982; Smith and Watts 1992;Murphy 1999). Also included in the model is a measure of the firm's financial reporting complexity (ACC). Operating accruals is included under the assumption that firm's whose earnings substantially deviate from cash flows are more prone to the misreporting of earnings (Indjejikian and Matejka 2009). The CFOs of such firms are required to exert more effort in their financial reporting duties to mitigate the increased likelihood of accounting errors and thus demand higher compensation (Indjejikian and Matejka 2009). A measure of firm performance (ROA) is included as the level of pay is

---

[15] TA is average total assets

an increasing function of firm performance (Core, Holthausen and Larcker 1999).[16] Finally, the ratio price to book (P_B) is used to control for the firm's investment opportunities as firms with more investment opportunities have a greater demand for managerial talent (Hoitash, Hoitash and Johnstone 2009; Murphy 1985). The underlying intuition for including this ratio in the context of compensation levels and bonuses is to capture the consequences of the CFO's accounting talent that are reflected in share prices (Bushman, Indjejikian and Smith 1996).

The second set of controls relate to the strength of corporate governance mechanisms in mitigating the ability of the CFO to extract additional rent from the firm. According to Jensen (1993) and Yermack (1996), larger boards are expected to be less effective. As such, CFOs are expected to receive higher compensation when the board is larger (BSIZE) (e.g. Hoitash, Hoitash and Johnstone 2009). The second measure for board strength is the percentage of executive directors on the board of directors (EXDIR). A positive association is expected between the percentage of executive directors on the board and compensation because executive directors are regarded as inferior monitors due to the fact that, unlike non-executive directors they do not have the reputation and incentives to do so (Fama and Jensen 1983; Coles, Daniel and Naveen 2008).

The last set of controls relates to CFO's characteristics expected to be associated with compensation. The empirical literature on CFOs has identified the CFO's qualification and the CFO's tenure as proxies for the CFO's accounting talent. The CFO's qualification is characterised in terms of CFOs professional qualifications (CPA). CFOs have a variety of responsibilities within a firm, including the oversight of the firm's accounting and treasury

---

[16] This paper also runs test with ROE as a measure of firm performance. Unlike Core, Holthausen and Larcker 1999) ROA and ROE were not included in the same regression because of multicollinearity problems. The results do not change when these alternate variables are included.

functions. This chapter suggests that firms have a greater demand for CFOs that have received formal training in accounting during the transition to IFRS. It is expected that firms whose CFO has a ICA or CPA qualification will receive a higher compensation during the transition year. Finally the CFO's tenure (TENURE), which is the number of years the CFO has been CFO of the firm is included in the model. It is viewed that the longer the CFO has kept his/her current position, the better the firm's positive opinion on the CFO's ability to perform his/her duties (Milbourn 2003) and the higher his/her compensation.

The following logit regression is used to examine the relation between the CFO's accounting talent and the CFO's turnover (H_3).

Model 3:

$$TURNOVER_{it+1} = \beta + \beta_1 TALENT_{it} + \beta_2 TA_{it} + \beta_3 ACC_{it} + \beta_4 ROA_{it-1} + \beta_5 P\_B_{it-1} + \beta_6 BSIZE_{it} + \beta_7 EXDIR_{it} + \beta_8 BLOCK_{it} + \beta_9 CPA + \beta_{10} TENURE_{it} + \Sigma_i \beta_i IND_{it} + \varepsilon_i$$

(3)

These dependent and independent variables used are defined below.

Model 3 uses two measures of CFO TURNOVER. The first measure is an indicator variable set to equal to one if the company hires a new CFO during the adoption year, zero otherwise ($TURN_{t+1}$). The second measure is an indicator variable set to equal to one if the company hires a new CFO one year subsequent to the adoption year, zero otherwise ($TURN_{t+2}$).

This section describes the control variables used in the CFO turnover regression. First, firm size (TA) is controlled for (e.g. Desai, Hogan and Wilkins 2006; Li, Sun and Ettredge 2010). It is expected that larger firms have the financial ability to attract more talented CFOs. Once attracted in the firm, proper compensation levels and compensation incentives are put in place

to retain such talented individuals. Therefore a negative association is expected between firm size and CFO's turnover. The firm's financial reporting complexity is also controlled for (ACC). It is viewed that CFO's facing more complex reporting are more likely to make implementation errors (Indjejikian and Matejka 2009). To mitigate these errors firms are more likely to appoint talented CFO's, who in turn, are also less likely to be replaced. Consistent with the existing turnover literature, prior firm performance is controlled for, using ROA as prior research finds that poor performance increases the likelihood of turnover (e.g. Desai, Hogan and Wilkins 2006; Li, Sun and Ettredge 2010). The ratio of price-to-book (P_B) is used to control for the firm's investment opportunities. Firms with more investment opportunities have a greater demand for talent (Murphy 1985), who in turn, is less likely to be replaced.

Also included in the model is the strength of the corporate governance mechanisms in the firm. Board of directors are viewed to play an important role in monitoring management. In extreme cases, board of directors replace poor performing managers. To capture the strength of the board of directors the Chapter controls for board size (BSIZE) and the percentage of executive directors (EXDIR) on the board (e.g. Weisbach 1988; Li, Sun and Ettredge 2010). Desai, Hogan and Wilkins (2006) document that on average boards of restating firms act in a decisive manner by removing top managers following the revelation of earnings restatement. Furthermore, Murphy (1999) observes that turnover is strongest in companies that are dominated by independent outside directors. Therefore it is reasonable to expect a negative relation between the EXDIR variable and the CFO's turnover. In addition consistent with Desai, Hogan and Wilkins (2006) and Li, Sun and Ettredge (2010), block-ownership (BLOCK) is included, as they are more likely to be better monitors.

Finally controls for CFO's quality characteristics are included. It is argued that CFOs that are viewed as being of higher quality are less likely to be replaced. To capture the CFO's quality the qualifications of the CFO (CPA) and the numbers of years that the CFO has been in the CFO position in the firm (TENURE) are used. CFO with longer tenure are also more difficult to replace (Collins, Reitenga and Sanchez 2008; Murphy 1999).

2.4 Results

2.4.1 Descriptive statistics and variables definition.

Table 2.3 presents the descriptive statistics on the compensation of Australian CFOs, economic characteristics of the firms and characteristics of these CFOs.

Table 2.3   **Descriptive statistics.**

	Mean	Median	Std.	Min	Max
TOTAL	$464,533	$311,037	$493,088	$30,625	$4,575,000
BASE	$265,032	$205,260	$192,381	$15,000	$1,518,000
CASH	$357,651	$236,678	$353,373	$28,096	$3,073,000
BONUS$_t$	$92,207	$20,000	$192,180	$0.000	$1,947,000
BONUS$_{t+1}$	$95,658	$26,841	$291,927	$0.000	$2,275,000
ΔBONUS	0.052	0.000	0.265	-0.731	2.085
ΔBONUSIV	0.421	0.000	0.495	0.000	1.000
TALENT (absolute value in millions)	16.091	2.270	4.882	0.000	447.000
TALENT	0.032	0.010	0.078	0.000	0.070
TA (millions)	1060.373	201.385	2865.155	5.960	35651.5
TA (log)	5.530	5.310	1.644	1.785	10.482
ACC	-0.139	-0.020	1.865	-31.180	0.570
ROA	0.039	0.060	0.161	-1.080	0.470
P_B	2.861	2.100	3.211	-4.100	35.180

BSIZE	7.160	7.000	2.230	3.000	15.000
EXDIR	0.140	0.140	0.150	0.000	0.830
CPA	0.600	1.000	0.490	0.000	1.000
TENURE	3.300	2.000	3.72	0.000	34.000
BLOCK	0.870	1.000	0.335	0.000	1.000
$TURN_{t+1}$	0.120	0.000	0.323	0.000	1.000
$TURN_{t+2}$	0.350	0.000	0.478	0.000	1.000

This table represents descriptive statistics on the CFO's compensation levels, economic characteristics of the firm, corporate governance mechanisms and CFO's characteristics

The sample consists of 280 firm observations. The compensation variables; TOTAL, BASE, CASH, $BONUS_t$, $BONUS_{t+1}$ are logged and winsorized at the 1st and 99th percentiles to avoid problems related to outliers.

All variables are defined below:

TOTAL	=	the log of the CFO's total annual compensation (the sum of base salary, cash bonus, superannuation, pecuniary benefits, long-term compensation, retirement allowances and others);
BASE	=	the log of the CFO's fixed base salary;
CASH	=	the log of the CFO's cash compensation (the sum of base salary, cash bonus and other short-term incentives);
$BONUS_t$	=	the log of the CFO's bonus (1+ sum of cash bonus and other short-term cash incentives awarded in the transition year);
$BONUS_{t+1}$	=	the log of CFO bonus (1+ sum of cash bonus and other short-term cash incentives awarded in the subsequent year);
ΔBONUS	=	change in BONUS from the transition year to the adoption year, divided by TOTAL;
ΔBONUSIV	=	an indicator variable set to equal to one if there was an increase in BONUS from the transition year to the adoption year;
TALENT	=	$\sum \left| \dfrac{IFRS_{2006} - IFRS_{2005}}{TA} \right| \times (-1)$ (see Appendix 1 for more information);
TA	=	the log of the average total assets;
ACC	=	the net operating profit after tax minus the cash flow from operations;
ROA	=	the return on assets in the prior year;
P_B	=	the ratio of price to book in the prior year;
BSIZE	=	the number of directors on the board;
EXDIR	=	the percentage of executive directors on the board;

CPA	=	an indicator variable, which is set equal to one if the firm's CFO is a certified public accountant or chartered account, zero otherwise;
TENURE	=	the number of years the CFO has been CFO in the firm until the end of the transition year;
BLOCK	=	an indicator variable set to equal to one if block holding is greater than 5%, zero otherwise;
$TURN_{t+1}$	=	an indicator variable set to equal to one if the company hires a new CFO during the adoption year, zero otherwise;
$TURN_{t+2}$	=	an indicator variable set to equal to one if the company hires a new CFO one year subsequent to the adoption year, zero otherwise.

The CFOs' mean total compensation is $464,533 in the transition year. The average base salary is $265,032 with an average bonus of $92,207. The mean increase in bonus compensation relative to total compensation is 5.2% in the adoption year. Meanwhile 42% of CFOs received an increase in bonus compensation in the adoption year.

Regarding board characteristics, the descriptive statistics reveal that the average board is made up of 7 directors and that 14% of these directors are executive directors. These board characteristics are similar to those reported in prior studies (e.g. Hoitash, Hoitash and Johnstone 2009; Larcker, Richardson and Tuna 2007).

In terms of the CFOs' characteristics, the descriptive statistics reveal that 60% of Australian CFOs have received either a CPA or ICA. The average tenure for Australian CFOs is 3.3 years which is half the mean CFOs' tenure in US firms (Milbourn, 2003; Hoitash et al., 2009). Furthermore, 12% of CFOs had their employment terminated in the adoption year and 35% of CFOs had their employment terminated subsequent to the adoption year.

Table 2.4 presents the correlation matrix of the variables used in model 1, 2 and 3.

Table 2.4   Correlation coefficients matrix of the variables.

		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
1	TOTAL	1.000																		
2	BASE	0.920***	1.000																	
3	CASH	0.952***	0.967***	1.000																
4	BONUS$_t$	0.624***	0.528***	0.647***	1.000															
5	BONUS$_{t+1}$	0.432	0.395	0.431***	0.515***	1.000														
6	ΔBONUS	-0.235***	-0.154***	-0.223***	-0.239	0.342***	1.000													
7	ΔBONUSIV	-0.031***	-0.003	-0.037***	0.003	0.584***	0.513***	1.000												
8	TALENT	0.190***	0.210***	0.199***	0.102*	0.183***	0.014	-0.095	1.000											
9	TA	0.711***	0.702***	0.716***	0.454***	0.428***	0.024	0.022	0.126**	1.000										
10	ACC	0.127**	0.112*	0.104*	0.073*	0.079	0.011	0.05	-0.021	0.048	1.000									
11	ROA	0.182**	0.218***	0.208***	0.092	0.099*	0.026	0.044	0.044	0.273***	0.049	1.000								
12	P_B	-0.074	-0.110*	-0.074	0.020	-0.041	-0.171	-0.012	0.044	-0.319***	0.040	-0.098*	1.000							
13	BSIZE	0.408***	0.397***	0.421***	0.287***	0.256***	0.029	0.033	0.057	0.540***	0.026	0.027	-0.152***	1.000						
14	EXDIR	-0.232***	-0.239***	-0.245***	-0.251***	-0.203***	0.060	0021	-0.011	-0.322***	-0.153***	0.089	0.099*	-0.230***	1.900					
15	CPA	-0.136**	-0.074	-0.105*	-0.119**	-0.178**	0.043	0.071	0.030	-0.188***	-0.046	-0.008	0.051	-0.053	0.081	1.000				
16	TENURE	0.086	0.074	0.096*	0.062	-0.027	-0.032	-0.169***	0.080	0.069	-0.010	0.055	-0.065	0.075	0.041	0.055	1.000			
17	BLOCK	0.0320	0.060	0.022	-0.083	-0.064	-0.014	0.083	-0.090	0.153*	0.034	-0.026	0.019	0.071	-0721	-0.006	-0.088	1.00		
18	TURN$_{t+1}$	-0.090	-0.117*	-0.093	-0.095	-0.1020*	-0.015	-0.020	-0.162***	-0.170***	-0.037	-0.042	0.063	-0.026	0.141*	-0.066	-0.087	-0.091	1.00	
19	TURN$_{t+2}$	-0.113*	-0.165***	-0.146**	-0.055	-0.148*	-0.117**	-0.140**	-0.059	-0.090	-0.131*	-0.232***	0.106*	-0.034	-0.033	0.029	0.041	-0.035	0.420***	1.00

***,**,* significance at the 1, 5 and 10 percent levels, respectively, using a two-tailed test. The sample consists of 280 firm observations. The compensation variables; TOTAL, BASE, CASH, BONUS$_t$, BONUS$_{t+1}$ are logged and winsorized at the 1st and 99th percentiles to avoid problems related to outliers. TOTAL is the log of the CFO's total annual compensation (the sum of base salary, cash bonus, superannuation, pecuniary benefits, long-term compensation, retirement allowances and others); BASE is the log of the CFO's fixed base salary; CASH is the log of the CFO's cash compensation (the sum of base salary, cash bonus and other short-term incentives); BONUS$_t$ is the log of the CFO's bonus (1+ sum of cash bonus and other short-term cash incentives awarded in the transition year); BONUS$_{t+1}$ is the log of CFO bonus (1+ sum of cash bonus and other short-term cash incentives awarded in the subsequent year); ΔBONUS is change in BONUS from the transition year to the adoption year, divided by TOTAL; and ΔBONUSIV is an indicator variable set to equal to one if there

was an increase in BONUS from the transition year to the adoption year; TALENT is $\sum \left| \dfrac{IFRS_{2006} - IFRS_{2005}}{TA} \right| \times (-1)$; TA is the log of the average total assets; ACC is the net

operating profit after tax minus the cash flow from operations; ROA is the return on assets in the prior year; P_B is the ratio of price to book in the prior year; BSIZE is the number of directors on the board; EXDIR is the percentage of executive directors on the board; CPA is an indicator variable, which is set equal to one if the firm's CFO is a certified public accountant or chartered account, zero otherwise; TENURE is the number of years the CFO has been CFO in the firm until the end of the transition year; BLOCK is an indicator variable set to equal to one if block holding is greater than 5%, zero otherwise; $TURN_{t+1}$ is an indicator variable set to equal to one if the company hires a new CFO during the adoption year, zero otherwise; and $TURN_{t+2}$ is an indicator variable set to equal to one if the company hires a new CFO one year subsequent to the adoption year, zero otherwise.

First, Table 2.4 reveals that there is no correlation between the proxy used for the CFO's accounting talent and the CFO's qualification (CPA) and the CFO's tenure (TENURE). This is counterintuitive as qualification and tenure, have been used in prior studies to proxy for talent (e.g. Milbourn, 2003). Alternatively, CPA and TENURE could potentially capture another dimension of talent not captured in the talent proxies used in this paper. Furthermore, there is a positive correlation between total assets (TA) and TALENT at the 5% level (r=0.126). This is consistent with existing theory that larger firms employ the most talented CFOs (Rosen, 1982; Smith and Watts, 1992). The negative correlation between accounting qualification (CPA) and firm size (TA) highlights the trade-offs firms make when appointing CFOs (p=0.01 and r=-0.188). Some firms employ CFOs to perform treasure functions that do not require accounting qualifications, whereas some firms employ CFOs mainly to perform financial reporting oversights.

While there is evidence of high correlations between total assets (TA), board size (BSIZE), variance inflation factor on these variables is within the reasonable threshold. Collinearity diagnostics show that the VIF factor on the right-hand-side variables in models 1, 2 and 3 is less than 2.09, suggesting that multicollinearity is not likely to disturb the direction of the coefficients in the regression estimation models.

2.4.2 Results for H_1 and H_2 based on the association between the CFO's accounting talent and the CFO's compensation.

Table 2.5 reports tests of means and medians of the most talented CFOs and the least talented CFOs.

Table 2.5   Comparing means and medians.

In this table the sample is partitioned in half based on the CFO's accounting talent. "Most talented" represents those CFOs who reported the least IFRS implementation errors and "Least talented" represent those CFOs who reported the highest IFRS implementation errors.

Variables		N	Mean	Median	t-stat (p-value)	z-stat (p-value)
TOTAL	Most talented	140	5.560	5.520	1.67	1.40
	Least talented	140	5.490	5.480	(0.05)**	(0.08)*
BASE	Most talented	140	5.380	5.360	2.62	2.49
	Least talented	140	5.290	5.290	(0.01)***	(0.01)***
CASH	Most talented	140	5.460	5.430	2.48	1.61
	Least talented	140	5.370	5.340	(0.01)***	(0.06)*
$BONUS_t$	Most talented	140	3.090	4.480	1.18	1.56
	Least talented	140	2.750	4.000	-(0.12)	(0.06)*
$BONUS_{t+1}$	Most talented	140	3.270	4.560	1.36	1.696
	Least talented	140	2.890	4.250	(0.09)*	(0.05)**
$\Delta BONUS$	Most talented	140	0.057	0.000	0.333	0.363
	Least talented	140	0.047	0.000	(0.630)	(0.717)

***,**,* indicate significance at the 1%, 5% and 10% levels, respectively, using a one-tailed test. The sample consists of 280 firm observations. The compensation variables; TOTAL, BASE, CASH, $BONUS_t$, $BONUS_{t+1}$ are logged and winsorized at the 1 and 99 percentiles to avoid problems related to outliers.
TOTAL is the log of the CFO's total annual compensation (the sum of base salary, cash bonus, superannuation, pecuniary benefits, long-term compensation, retirement allowances and others); BASE is the log of the CFO's fixed base salary; CASH is the log of the CFO's cash compensation (the sum of base salary, cash bonus and other short-term incentives); $BONUS_t$ is the log of the CFO's bonus (1+ sum of cash bonus and other short-term cash incentives awarded in the transition year); $BONUS_{t+1}$ is the log of CFO bonus (1+ sum of cash bonus and other short-term cash incentives awarded in the subsequent year); $\Delta BONUS$ is change in BONUS from the transition year to the adoption year, divided by TOTAL; and $\Delta BONUSIV$ is an indicator variable set to equal to one if there was an increase in BONUS from the transition year to the adoption year.

CFOs are classified as being among the most talented if they fall in the top 50 percent of firms that report the lowest implementation errors in estimating the IFRS. Consistent with H_1 the most talented CFOs receive higher compensation levels than do the least talented CFOs.

The results are consistent across TOTAL, BASE and CASH. Furthermore, the most talented CFOs receive higher cash bonuses in the subsequent year ($BONUS_{t+1}$) for their superior performance in the transition year, compared to the least talented CFOs. This finding is consistent with H_2. However this finding is not supported when $\Delta BONUS$ is used as an alternate proxy.

Table 2.6 reports the results for H_1 on the association between the CFO's compensation, the CFO's accounting talent and controls.

Table 2.6   **CFO's accounting talent and the CFO's compensation levels in the transition year.**

Evidence on the relation between the CFO's accounting talent and the CFO's compensation is reported as a regression of, the CFO's compensation levels on the CFO's ability to accurately estimate accruals during the transition to the IFRS, corporate governance mechanisms and economic determinants. The table reports results from the following OLS regression:

$$COMPENSATION_{it} = \beta + \beta_1 TALENT_{it} + \beta_2 TA_{it} + \beta_3 ACC_{it} + \beta_4 ROA_{it-1} + \beta_5 P\_B_{it-1} + \beta_6 BSIZE_{it}$$
$$+ \beta_7 EXDIR_{it} + \beta_8 CPA_{it} + \beta_9 TENURE_t + \sum \beta_i IND_{it} + \varepsilon_i$$

		Model (1) DepVar = Compensation levels measured as:			
		TOTAL	BASE	CASH	BONUS$_t$
Variables	Pred.sign	Coefficient (t-stats)	Coefficient (t-stats)	Coefficient (t-stats)	Coefficient (t-stats)
Intercept		10.193 (31.40)***	4.460 (37.10)***	9.946 (30.19)***	-2.168 (-0.70)
TALENT	(+)	0.698 (1.74)**	0.321 (2.16)***	0.730 (1.79)**	-1.058 (-0.20)
TA	(+)	0.358 (13.40)***	0.126 (12.74)***	0.363 (13.41)***	1.585 (6.22)***
ACC	(+)	0.034 (2.02)**	0.010 (1.68)**	0.024 (1.40)*	0.061 (0.38)
ROA	(+)	-0.051 (-0.24)	0.042 (0.54)	0.059 (0.27)	-0.827 (-0.41)
P_B	(+)	0.038 (2.99)***	0.009 (1.89)**	0.040 (3.06)***	0.328 (2.68)***
BSIZE	(+)	-0.003 (-0.15)	-0.001 (-0.12)	-0.005 (-0.32)	0.062 (0.38)
EXDIR	(+)	0.041 (0.18)	-0.011 (-0.13)	-0.035 (-0.15)	-3.905 (-1.78)**
CPA	(+)	-0.008 (-0.12)	0.031 (1.26)	0.035 (0.54)	-0.397 (-0.64)
TENURE	(+)	0.011 (1.30)*	0.002 (0.72)	0.012 (1.39)*	0.076 (0.97)
Industry controls		Yes	Yes	Yes	Yes
Adjusted R-squared		0.5662	0.5511	0.5761	0.2374
F-statistics		22.42	21.15	23.30	6.11
Observations		280	280	280	280

***,**,* significance at the 1, 5 and 10 percent levels, respectively, using a two-tailed (one-tailed) test if there is a non-directional (directional) prediction. The sample consists of 280 firm observations. TOTAL is the log of the CFO's total annual compensation (the sum of base salary, cash bonus, superannuation, pecuniary benefits, long-term compensation, retirement allowances and others); BASE is the log of the CFO's fixed base salary; CASH is the log of the CFO's cash compensation (the sum of base salary, cash bonus and other short-term incentives); BONUS$_t$ is the log of the CFO's bonus (1+ sum of cash bonus and other short-term cash incentives awarded in the transition year); TALENT is $\sum \left| \dfrac{IFRS_{2006} - IFRS_{2005}}{TA} \right| \times (-1)$; TA is the log of the average total assets; ACC is the net operating profit after tax minus the cash flow from operations; ROA is the return on assets in the prior year; P_B is the ratio of price to book in the prior year; BSIZE is the number of directors on the board; EXDIR is the percentage of executive directors on the board; CPA is an indicator variable, which is set equal to one if the firm's CFO is a certified public accountant or chartered account, zero otherwise; and TENURE is the number of years the CFO has been CFO in the firm until the end of the transition year.

The compensation variables; TOTAL, BASE, CASH and BONUS$_t$ are logged and winsorized at the 1 and 99 percentiles to avoid problems related to outliers.

The regression equation includes as dependent variable one of the four measures of the CFO's compensation (TOTAL, BASE, CASH and BONUS) and includes as independent variables the CFO's accounting talent and control variables as described in Table 2.3. The dependent variable in the first column is based on total compensation whereas the second, third and fourth columns are the base salary compensation (BASE), cash compensation (CASH) and bonus compensation (BONUS), respectively. The adjusted R-squared is between 24% and 58% which suggests that the models are well specified.

The regression results presented in the first column of Table 2.6 demonstrate that total compensation is positively associated with the CFO's accounting talent (t=1.74). In terms of economic significance, the results suggest that a 5% increase in talent, corresponds to an increase in total compensation of $16,212 (0.05x0.698x$464,533). This is consistent with H_1 which states that there is a positive relation between the CFO's accounting talent and the CFO's compensation levels awarded in the transition year. Furthermore, this result is also consistent with the analytical literature on efficient labour markets, which predicts a positive relation between compensation and talent (Mayer 1960; Rosen 1982). The controls variables relating to the economic determinants of the firm, corporate governance and the CFO's characteristics are generally significant in the predicted direction at the conventional levels. Consistent with prior studies (Core, Holthausen and Larcker 1999), there is a positive relation between the CFO's compensation and firm size (TA) (t=13.40). This could be interpreted as reflecting firms demand for higher talent. As Rosen (1982) states, larger firms demand higher quality CFOs, who in turn demand higher compensation levels. Furthermore, firms that have high and potentially more complex accruals (ACC) also demand higher quality CFOs with

higher compensation levels (t=2.02). The positive association between the firm's investment opportunity set (P_B) and TALENT suggest that firm's with more investment opportunities have a greater demand for talented CFO (t=2.99). This complements similar findings that have been documented in the CEO literature. However, the chapter only finds modest evidence on the relation between the CFO's compensation and the CFO's tenure (TENURE) which is an alternate proxy for CFO talent (t=1.30). The chapter does not find results on the proxy for firm performance (ROA). This is due to the fact that CEOs have the responsibility firms' overall performance, not CFOs. Finally the proxies for board strength (BSIZE and EXDIR) and the CFO's qualifications (CPA) are not significant.

Evidence on the components of total compensation is provided in the next columns of Table 2.6. The left-hand-side variable TOTAL is replaced with BASE, CASH (base salary plus cash bonus) and $BONUS_t$. The results in columns 2 and 3 are consistent with the main results. The coefficients on TALENT are significant at the 1% and 5% levels respectively, confirming the positive association between talent and different components of compensation (t=2.16 and t=1.79, respectively). Furthermore, the same sets of controls are significant except for TENURE in column 2.

The last column presents the results when BONUS is used as the dependent variable. The CFO's accounting talent is not related to BONUS. This result is consistent with the notion that cash bonuses are awarded to CFOs based on their performance in the prior year. However, the talent proxy only captures the CFO's realized talent in the current year.

Table 2.7 reports the results for H_2, that there is a positive association between the CFO's accounting talent and the CFO's bonus compensation in the subsequent year.

Table 2.7   CFO's accounting talent and the CFO's bonus compensation in the adoption year.

Evidence on the relation between the CFO's accounting talent and the CFO's bonus compensation in the subsequent year is reported as a regression of the CFO's bonus compensation in the adoption year, on the CFO's ability to accurately estimate accruals during the transition to the IFRS, corporate governance mechanisms and economic determinants. The table reports results from the following OLS regression:

$$BONUS_{it+1} = \beta + \beta_1 TALENT_{it} + \beta_2 TA_{it} + \beta_3 ACC_{it} + \beta_4 ROA_{it-1} + \beta_5 P\_B_{it-1} + \beta_6 BSIZE_{it}$$
$$+ \beta_7 EXDIR_{it} + \beta_8 CPA_{it} + \beta_9 TENURE_{it} + \sum \beta_i IND_{it} + \varepsilon_i$$

Variables	Model (2) Dep Var = BONUS$_{t+1}$	
	Pred.sign	Coefficient (t-stats)
Intercept		0.437 (0.14)
TALENT	(+)	8.192 (2.17)**
TA	(+)	1.395 (5.56)***
ACC	(+)	0.097 (0.62)
ROA	(+)	0.015 (0.01)
P_B	(+)	0.111 (0.92)
BSIZE	(+)	0.053 (0.33)
EXDIR	(+)	-2.520 (-1.17)
CPA	(+)	-1.130 (-1.85)**
TENURE	(+)	-0.060 (-0.78)
Industry controls		Yes
Adjusted R-squared		0.2138
F-statistics		5.28
Observations		280

***,**,* significance at the 1, 5 and 10 percent levels, respectively, using a two-tailed (one-tailed) test if there is a non-directional (directional) prediction. The sample consists of 280 firm observations. BONUS$_{t+1}$ is the log of CFO bonus (1+ sum of cash bonus and other short-term cash incentives awarded in the subsequent year); TALENT is $\sum \left| \dfrac{IFRS_{2006} - IFRS_{2005}}{TA} \right| \times (-1)$; TA is the log of the average total assets; ACC is the net operating profit after tax minus the cash flow from operations; ROA is the return on assets in the prior year; P_B is the ratio of price to book in the prior year; BSIZE is the number of directors on the board; EXDIR is the percentage of executive directors on the board; CPA is an indicator variable, which is set equal to one if the firm's CFO is a certified public accountant or chartered account, zero otherwise; and TENURE is the number of years the CFO has been CFO in the firm until the end of the transition year.

The compensation variable BONUS$_t$ is logged and winzorised at the 1 and 99 percentiles to avoid problems related to outliers.

Bonus in the subsequent year is measured as bonus levels. The results based on bonus levels ($BONUS_{t+1}$) suggest a positive and significant relation between the CFO's bonus compensation and the CFO's accounting talent (t=2.17), hence confirming H_2. Turning to the control variables, there is a positive relation between $BONUS_{t+1}$ and TA (t=5.56), suggesting that larger firms who have a greater demand for talent, provides higher bonuses in order to motivate and retain their talents once they have been attracted to the firm (e.g. Jensen, Murphy and Wruck 2004). In addition, there is a negative relation between $BONUS_{t+1}$ and CPA (t=-1.85). The adjusted R-squared for bonus levels suggests that the model is well specified (adjusted R-squared = 21.4%).

Table 2.8 reports the results for H_2, based on the CFO's change in bonus compensation in the adoption year.

Table 2.8 **CFO's accounting talent and changes in the CFO's bonus compensation in the adoption year.**

Evidence on the relation between the CFO's accounting talent and change in the CFO's bonus compensation in the adoption year is reported as a regression of the CFO's bonus change on the CFO's ability to accurately estimate accruals during the transition to the IFRS, corporate governance mechanisms and economic determinants. The table reports results from the following regression:

$$BONUS_{it+1} = \beta + \beta_1 TALENT_{it} + \beta_2 \Delta TA_{it} + \beta_3 ACC_{it} + \beta_4 \Delta ROA_{it} + \beta_5 \Delta P\_B_{it-1} + \beta_6 BSIZE_{it}$$
$$+ \beta_7 EXDIR_{it} + \beta_8 CPA_{it} + \beta_9 TENURE_t + \sum \beta_i IND_{it} + \varepsilon_i$$

		Model (2) Dep Var = change in the CFO's BONUS compensation	
		ΔBONUS	ΔBONUSIV (indicator variable)
Variables	Pred.sign	Coefficient (t-stats)	Coefficient (z-stats)
Intercept		-0.103 (-0.79)	-0.760 (-0.71)
TALENT	(+)	0.311 (1.46)*	5.473 (1.73)**
ΔTA	(+)	0.044 (2.03)**	0.202 (0.97)
ΔACC	(+)	0.003 (0.28)	0.109 (0.57)
ΔROA	(+)	0.009 (0.85)	0.107 (1.03)
ΔP_B	(+)	0.002 (0.28)	-0.208 (-1.36)*
BSIZE	(+)	0.003 (0.50)	0.050 (0.82)
EXDIR	(+)	0.033 (0.33)	0.074 (0.08)
CPA	(+)	0.044 (1.46)*	0.417 (1.48)*
TENURE	(+)	-0.003 (-0.83)	-0.140 (-2.82)***
Industry controls		Yes	Yes
Adjusted R-squared		-0.008	
Pseudo R-squared			0.034
F-statistics		0.87	
Observations		280	280

***,**,* significance at the 1, 5 and 10 percent levels, respectively, using a two-tailed (one-tailed) test if there is a non-directional (directional) prediction. The sample consists of 280 firm observations. ΔBONUS is change in BONUS from the transition year to the adoption year, divided by TOTAL; ΔBONUSIV is an indicator variable set to equal to one if there was an increase in BONUS from the transition year to the adoption year; TALENT is $\sum \left| \dfrac{IFRS_{2006} - IFRS_{2005}}{TA} \right| \times (-1)$; TA is the log of the average total assets;

ACC is the net operating profit after tax minus the cash flow from operations; ROA is the return on assets in the prior year; P_B is the ratio of price to book in the prior year; BSIZE is the number of directors on the board; EXDIR is the percentage of executive directors on the board; CPA is an indicator variable,

The left-hand-side variable used in the first column is ΔBONUS and the left-hand-side variable used in the second column is ΔBONUSIV. For the right-hand-side variables, Table 2.8 uses the change in firm characteristics, change in TA (ΔTA), change in ACC (ΔACC), change in ROA (ΔROA) and change in P_B (ΔP_B). The actual values for the corporate governance variables and the CFO's characteristics are used because of the lack of variation in these variables across one year. An OLS regression is performed for ΔBONUS and a logit regression is performed for ΔBONUSIV. The results in columns 1 and 2 show a positive and significant relation on the experimental variable, TALENT (t=1.46 and z=1.73, respectively). However, the explanatory power in the changes in bonus regressions is relatively low (adjusted R-squared = -0.8% and pseudo R-squared =3.4% for columns 1 and 2 respectively).

The two sets of results from Table 2.7 and Table 2.8 together confirm H_2. This reflects the firms' ex ante intentions to motivate talent and the subsequent ex post reward (actual bonus) awarded to the talented CFOs, once the board of directors' prior evaluation of the CFOs past performance is confirmed. Most of the control variables are not significant with the exception of firms' size (ΔTA), the CFO's qualification (CPA) and the CFO's tenure (TENURE). Whilst in the first column TA is positive and significant, it is not significant in the second column. Similarly whilst TENURE is negative and significant in column 2, it is not significant in column 1. The chapter cannot offer an explanation for these findings.

2.4.3 Results for H_3 based on the association between the CFO's accounting talent and the CFO's turnover.

Table 2.9 reports the results for H_3, that there is an inverse relation between the CFO's

accounting talent and the CFO's turnover.

Table 2.9 CFO's accounting talent and the CFO's turnover in the adoption year and one year after the adoption year.

Evidence on the relation between the CFO's accounting talent and the CFO's turnover is reported as a regression of the CFO's turnover, on CFO's ability to accurately estimate accruals during the transition to the IFRS, corporate governance mechanisms and economic determinants. The table reports results from the following Logit regression:

$$TURNOVER_{it+1} = \beta + \beta_1 TALENT_{it} + \beta_2 TA_{it} + \beta_3 ACC_{it} + \beta_4 ROA_{it-1} + \beta_5 P\_B_{it-1} + \beta_6 BSIZE_{it}$$
$$+ \beta_7 EXDIR_{it} + \beta_8 BLOCK_{it} + \beta_9 CPA + \beta_{10} TENURE_{it} + \sum \beta_i IND_{it} + \varepsilon_i$$

		Model (3) DepVar = CFO Turnover in the adoption year and in the year subsequent to the adoption year	
		$TURN_{t+1}$	$TURN_{t+2}$
Variables	Pred.sign	Coefficient (z-stats)	Coefficient (z-stats)
Intercept		-1.881 (-1.07)	0.014 (0.01)
TALENT	(+)	-4.220 (-2.26)**	0.691 (0.39)
TA	(-)	0.115 (2.26)**	-0.185 (-1.57)*
ACC	(-)	-0.435 (-0.63)	-0.062 (-0.36)
ROA	(-)	-0.354 (-0.27)	-1.747 (-1.77)**
P_B	(-)	-0.108 (-1.11)	-0.008 (-0.44)
BSIZE	(+)	0.034 (0.03)	0.091 (1.15)
EXDIR	(-)	2.902 (2.03)**	2.648 (2.73)***
BLOCK	(+)	-0.861 (-1.59)*	-0.056 (-0.13)
CPA	(-)	-0.523 (-1.25)	-0.109 (-0.37)
TENURE	(-)	-0.128 (-1.45)*	-0.013 (-0.36)
Industry controls		Yes	Yes
Pseudo R-squared		0.1265	0.081
Observations		280	257

***,**,* significance at the 1, 5 and 10 percent levels, respectively, using a two-tailed (one-tailed) test if there is a non-directional (directional) prediction. The sample consists of 280 firm observations. $TURN_{t+1}$ is an indicator variable set to equal to one if the company hires a new CFO during the adoption year, zero otherwise; $TURN_{t+2}$

is an indicator variable set to equal to one if the company hires a new CFO one year subsequent to the adoption year, zero otherwise; TALENT is $\sum \left| \dfrac{IFRS_{2006} - IFRS_{2005}}{TA} \right| \times (-1)$; TA is the log of the average total assets; ACC is the net operating profit after tax minus the cash flow from operations; ROA is the return on assets in the prior year; P_B is the ratio of price to book in the prior year; BSIZE is the number of directors on the board; EXDIR is the percentage of executive directors on the board; BLOCK is an indicator variable set to equal to one if block holding is greater than 5%, zero otherwise; CPA is an indicator variable, which is set equal to one if the firm's CFO is a certified public accountant or chartered account, zero otherwise; and TENURE is the number of years the CFO has been CFO in the firm until the end of the transition year.

Table 2.9 provides evidence on the CFO's turnover one year and two years after the IFRS transition. The models control for firm's economic characteristics (TA, ACC, ROA and P_B), corporate governance (BSIZE, EXDIR and BLOCK) and the CFO's characteristics (CPA, TENURE and TALENT). The Pseudo R-squared is between 12.65% and 8.10% for column 1 and 2 respectively. This is consistent with those reported by Li, Sun and Ettredge (2010) (pseudo R-squared = 12.6%) and Desai, Hogan and Wilkins (2006) (pseudo R-squared = 9.6%).

Focusing on the CFO's turnover one year after the transition year (Table 2.9 column 1) there is a negative and significant association between the CFO's accounting talent and the CFO's turnover (t=-2.26). This result suggests an instantaneous ex-post settlement with non-performing CFOs and confirms H_3. Alternatively, inferior CFOs feel compelled to resign when faced with challenging situations they feel cannot be successfully completed in a given period of time. There is a positive relation between firm size (TA) and the CFO's turnover, suggesting that larger firms are more likely to replace underperforming CFOs one year after the transition to IFRS (t=2.26). Larger firms also have the financial ability to replace their CFOs with more talented CFOs. The chapter also finds that turnover is stronger in companies dominated by executive directors (EXDIR) (t=2.03). These results are inconsistent with the prediction and contradicts prior studies that argue that turnover of executives is more likely in

companies where boards are dominated by independent outside directors (Murphy 1999; Weisbach 1988). However, Desai, Hogan and Wilkins (2006) also report a negative finding on this variable. Moreover, the presence of blockholders (BLOCK) and the CFO's tenure (TENURE) is inversely related to the CFO's turnover (Desai, Hogan and Wilkins 2006; Li, Sun and Ettredge 2010).

The results in respect to the CFO's turnover two years after IFRS transition suggest that there is no association between the experimental variable (TALENT) and the CFO's turnover (Table 2.9 column 2). This result is consistent with the view that (i) underperforming CFOs are likely to be replaced in a timely manner (i.e. within a year after the implementation errors are discovered) which is consistent with an efficient executive labour market view, or (ii) talented CFOs move to better positions or job prospects within or outside their firms. This chapter cannot discriminate between these two explanations. Turning to the control variables, there is a negative association between firm size and CFO's turnover two years after the IFRS transition (t=-1.57). This may suggest that board of directors in larger firms, act on a timelier manner than board of directors in smaller firms in replacing poorly performing CFOs. There is a negative association between previous year's performance and the CFO turnover (t=-1.77). This is consistent with expectation, as poor performance increases the likelihood of turnover (e.g. Desai, Hogan and Wilkins 2006; Li, Sun and Ettredge 2010). Finally there is a positive association between the percentage of executive directors on the board and CFO turnover (t=2.73). This is inconsistent with prior theories that suggest that non-executive directors are better monitors (Murphy 1999; Weisbach 1988). However, Desai, Hogan and Wilkins (2006) also report a negative finding on this variable.

2. 5 Additional tests

2.5.1 CEO's accounting talent

A main concern with the above results is that the CFO's accounting talent is in fact capturing the CEO's accounting talent. Like the CFO, the CEO is also required to personally acknowledge that the financial reports truly and fairly represent the financial performance and position of the firm. Accordingly it is possible that the CEO exerts his/her power to influence the CFO's financial reporting decisions (Ge, Matsumoto and Zhang 2008). Model 1 and Model 2 are re-run using the CEO's compensation levels (TOTAL, BASE, CASH and BONUS). The coefficient on the TALENT is not significant (Appendix 3). Overall, the results suggest that CEOs are not held accountable for implementation errors in annual financial reports because they do not bear the consequences of such errors. Consistent with the view of this paper, it is the CFO's quality that impacts on the outcomes of financial reporting.

2.5.2 Alternative specifications of the control variables

Sensitivity tests are also conducted on alternative measures of firm performance. Hypotheses 1 and 2 are re-tested using (i) ROE as a measure of performance, (ii) average ROE over 3 years and average ROA over 3 years, instead of ROA as a measure of firm performance. The coefficient on the alternate measures of performance remains non-significant and the results are similar to those reported in Tables 2.6, 2.7 and 2.8 (Appendix 4)

2.5.3   Two-stage least squares regression

Another concern with the findings of this chapter is that the experimental variable TALENT captures other factors beyond the CFO's accounting talent. Three instruments that are associated with TALENT in the first-stage regression are identified. External auditors played an important role during the transition to IFRS. In particular larger auditors (BIG4) are more likely to provide higher quality audits during the transition to IFRS. Larger auditors have also been associated with clients that have lower accounting errors. Therefore it is expected that firms with larger auditors to have lower IFRS errors. It is also argued that auditors that are paid a larger fee to exert more effort during the transition to IFRS and hence have lower IFRS errors (AFEES). Finally a dummy variable for firms' financial year ends (YE) is included. It is argued that firms reporting later in the reporting cycle have the advantage of learning about specific IFRS issues during professional training, networking, etc. Also auditors would have already dealt with the IFRS issues earlier in the financial year and hence are less likely to have errors during the later part of the transition year. The first stage is regression performed with TALENT on the left-hand-side and the instruments BIG4, FEES and YE on the right-hand-side. The adjusted R-squared is 2.13% and the F-statistic is 2.97, suggesting that the instruments are relatively weak. The suggested F-statistic for including three instruments in the first stage regression is 12.83 (Larcker and Rusticus 2010). As the F-statistic is below the suggested range, a 2SLS regression is not performed. Appendix 5 documents the results of the first-stage regression with TALENT as the left-hand-side variable and BIG4, AFEES and YE as right-hand-side variables.

2.5.4 Other sensitivities

Tests are also run based on, quartiles, quintiles and deciles (Appendix 6). Results from these tests are generally consistent with the main results. In Appendix 7, an alternative scalar is used for TALENT. Net profit is used instead of total assets to capture the extent to which earnings was measured with errors. While results for H_1 and H_2 still hold, the results for H_3 do not hold when an alternative scalar is used. Finally, in Appendix 8 the sample is partitioned based on financial year ends. Firms with December financial year ends were the first to implement IFRS, with the majority of firm implementing IFRS in June. CFOs having to report later in the reporting cycle have the benefit of more time to become familiar with the IFRS (e.g. professional training and experienced external auditors) compared to CFOs having to report earlier in the reporting cycle. As such it is expected that the relation between the CFO's accounting talent and the CFO's compensation to be stronger for CFO's reporting earlier in the reporting cycle. The results suggest that the relation between the CFO's accounting talent and the CFO's compensation and bonuses is similar across both samples, with the exception of total compensation (TOTAL). However, the results do not hold for the CFO's accounting talent and the CFO's turnover when the sample is partitioned based on financial year ends.

2.6   Conclusion

This chapter builds on the emerging CFO literature and provides evidence regarding the association between the CFO's accounting talent, the CFO's compensation and the CFO's turnover. It is argued that the compulsory transition to IFRS within a year in Australia provides a unique setting, where the IFRS implementation errors reflect the CFO's accounting talent.

The findings of this chapter are as follows. First, this chapter documents a positive relation between the CFOs' accounting talent and their compensation levels (total, base salary and cash compensation). This is consistent with the efficient labour market view that the firms offer higher compensation to talented executives in order to attract, retain and motivate such individuals. Other firm characteristics and corporate governance mechanisms such as firm size, the level of accruals and the firm's investment opportunity set are also associated with the CFO's compensation. Second, this paper document a positive relation between the CFO's accounting talent and the CFO's cash bonuses awarded to them in the subsequent year. This reflects the firms' ex ante decisions to motivate talented CFOs to be more proactive during the transition year to IFRS and to reward those CFOs who realize their talent. The results highlight the importance of including annual cash bonuses in CFOs compensation packages as a short-term incentive. Furthermore, the evidence suggests that CFOs who fail to realize their talent in the adoption year are more likely to be dismissed by the firm. The turnover of these CFOs also happens in a timely manner.

Consistent with the emerging literature on CFO, additional tests reveals that it is the CFOs and the not the CEOs who have the most influence on financial reporting decisions. Overall the results are consistent with an efficient labour market, where the observed compensation levels awarded to executives (at least CFOs) are "efficient" and reflect the firms' demand for talent. These results are however contingent on the assumption that, IFRS implementation errors are a reasonable construct for CFOs' accounting talent.

Results from this chapter have implications for practitioners, regulators and researchers. First, the findings bring into questions the outcomes of government intervention in setting

executive compensation.[17] Second, the findings of this chapter contribute to the emerging literature on CFO compensation by using a directly observable measure of the CFO's accounting talent as opposed to "broader" proxies, such as restatements and media mentions. These findings are also important given the conflicting assumptions in the current literature regarding the CFOs incentives to misreport earnings to mislead investors versus their incentive not to misreport earnings (Bebchuk and Fried 2003; Graham, Harvey and Rajgopal 2005; Jiang, Petroni and Wang 2008). Specifically, this chapter shows that there are cross-sectional variations in the extent to which earnings are calculated with errors, even in the absence of earnings manipulations, where these variations are attributable to the talent of the CFOs. This highlights the importance of including the quality of CFOs in models of earnings quality, disclosure quality and earnings forecasts.

---

[17] For example, President Obama imposed salary caps on top executives that applied for assistance during the financial crisis as a first step in a larger strategy to reshape how Wall Street executives are paid.

CHAPTER 3

IFRS implementation errors and earnings quality metrics

3.1   Introduction

The purpose of this chapter is to evaluate the ability of some commonly used earnings quality metrics[18] to capture implementation errors. Specifically this chapter tests the association between these earnings quality metrics and implementation errors. A unique experimental setting, whereby implementation errors is directly observable, is selected to investigate this research question.

The motivation for this chapter is twofold. First, the need to validate existing earnings quality metrics as articulated by Dechow, Ge and Schrand (2010) motivates this chapter. Dechow, Ge and Schrand (2010) explain that earnings quality is a function of both firm fundamental characteristics and implementation errors (errors in the implementation of GAAP). However, much of the empirical literature focuses on the extent to which these metrics capture fundamental characteristics of firms (Dechow and Dichev 2002; Francis et al. 2004).[19] On the other hand, the extent to which these metric capture implementation errors remains undocumented. This is because it is inherently difficult to observe implementation errors.[20] Yet such evidence is crucial in guiding researchers in their choice of earnings quality metrics and in making conclusions about the implications of their findings. The trend in accounting research has been to adopt earnings quality metrics in a more generic sense without a specific

---

[18] Such as: total accruals, "abnormal" accruals, accruals quality, earnings persistence, earnings predictability and earnings smoothness.
[19] Fundamental characteristic of the firms identified by Dechow and Dichev (2002) are: firm size, cash flow variability, sales variability, length of operating cycle and incidence of negative earnings. In addition Francis et al. (2004) identifies intangible intensity and capital intensity. This chapter considers all of these measures except for intangible intensity because this data is not readily available in the Australian context.
[20] However attempts have been made to model implementation errors (e.g. Dechow and Dichev 2002)

decision context. For example in their review paper, Dechow, Ge and Schrand (2010) highlight that a number of published papers either adopt earnings quality metrics that do not match their hypothesized form, or adopt multiple earnings quality metrics to show robustness of their results. Given that the correlation between earnings quality metrics is not generally economically significant, robust findings across these metrics might suggest that there is a common component to these earnings quality metrics (Dechow, Ge and Schrand 2010) .This chapter addresses the concerns raised by Dechow, Ge and Schrand (2010) regarding the choice of earnings quality metrics (in terms of what some of these metrics capture beyond just fundamental characteristics of the firm) by providing evidence on the extent to which these earnings quality metrics are associated with implementation errors in reported earnings.

The second motivation of this chapter is the ability to directly observe implementation errors in reported earnings by exploiting a unique setting where there is a change in the application and interpretation of accounting standards. This setting is the transition from local Generally Accepted Accounting Principles (GAAP) to the International Financial Reporting Standards (IFRS). The ability to observe the implementation decisions of accounting experts is made possible by the requirements of two accounting standards during the transition to the IFRS and the adoption of the IFRS. Specifically Australian firms were required under AASB 1047 to reconcile home GAAP earnings to IFRS earnings during the transition year.[21] In the subsequent year (the adoption year) under AASB 1 Australian firms were required to provide the same reconciliation to be disclosed and reported as comparatives in the financial statements. While there was an expectation that the two IFRS earnings figures would be

---

[21] There were no early voluntary adoptions of IFRS in Australia. The two requirements of the accounting standards are as follows. AASB 1047 "Disclosing the Impacts of Adopting A-IFRS" required that entities provide a reconciliation of their earnings from the Australian Generally Accepted Accounting Principles (GAAP) to their earnings based on the International Financial Reporting Standards (IFRS). Furthermore upon first-time adoption in the subsequent year firms were required by AASB 1 "First-time Adoption of A-IFRS" to provide the same reconciliation.

similar, many firms had to restate the IFRS earnings previously estimated in the transition year. This chapter refers to this difference between the IFRS earnings estimated in the transition year and the re-stated IFRS in the adoption year as, implementation errors.

It could be argued that implementation errors are free from intentional misstatements, because there are no incentives to manipulate IFRS earnings (Goodwin, Ahmed and Heaney (2007). Instead it is argued that implementation errors are the outcome of "pure" errors. [22] Schipper (2010) explains that the implementation of a new set of accounting standards, in this instance, the IFRS, is viewed as an imperfect process leading to errors in reported earnings, in turn reducing earnings quality. This is because the implementation process is affected by quality of the implementers, in terms of their subject matter knowledge, cognitive ability and incentives. Schipper (2010) explains that the implementation of accounting standards would lead to errors despite being implemented in good faith (without intentionally subverting the intent of the standards) because of unskilled application of the accounting standards.

The primary analysis consists of examining the association between six earnings quality metrics as the dependent variables, implementation errors and firm fundamentals as explanatory variables. The six earnings quality metrics are: total accruals (TACC), "abnormal" accruals (MJONES), accruals quality (DD), earnings persistence (PERSIST), earnings predictability (PREDICT) and earnings smoothness (SMOOTH). These earnings quality metrics have been selected as they have been claimed to measure the extent to which reported earnings is calculated with errors.

---

[22] While there were no incentives to manipulate the IFRS earnings, there were incentives to comply with the accounting standards. For example, ASIC took an active role prior to and during the transition to IFRS, warnings Australian firms that failure to comply with the requirements of the standards could potentially breach the financial reporting requirements of the Act (ASIC 21 October 2003).

Evidence from this chapter is based on 198 Australian companies drawn from the S&P ASX Top 500 firms during the fiscal year ending 2005 (the transition year).[23] Implementation errors are calculated in the transition year using financial statements in the transition year and in the adoption year. Fundamental characteristics of the firm required to compute the earnings quality metrics are obtained from the Aspect-Huntley database from 1991 to 2005. Because the implementation errors are based on the IFRS and only observable for one year, it is hard to determine how long implementation errors have existed in the firms' reported earnings. It is argued that the accuracy of the firms' financial reporting system is "sticky" and hence implementation errors in earnings have existed for several years prior to their disclosure (Doyle, Ge, and McVay 2007). Moreover the fact that the implementation errors metrics and earnings quality metrics are based on two different sets of accounting rules does not influence the overall accuracy of the firms' financial reporting system.

The chapter finds that implementation errors are positively associated with models of total accruals, accruals quality, earnings persistence and earnings predictability. Ranging from highest to lowest in terms of explanatory power, from OLS regressions are; total accruals, earnings persistence, accruals quality and earnings predictability. Overall these results are consistent with the view articulated by Dechow, Ge and Schrand (2010) that all models of earnings quality are not equally affected by firm characteristics and implementation errors. These results do not indicate which earnings quality metrics are the overall best. Instead, the results suggest that total accruals and earnings persistence are the more appropriate metrics to use in research settings that examine the causes and/or consequences of "unintentional" errors caused by the misapplication of GAAP.

---

[23] Unlike Chapter 2 that provides evidence based on 280 Australian firms, in Chapter 3 the sample size reduces to 198 firms because of the data requirements (ten years of prior data) to calculate some of the earnings quality metrics.

This chapter makes several contributions. The findings of this chapter are of interest to accounting researchers and accounting standard setters. First, accounting researchers have shown interest in validating earnings quality metrics (Dechow, Ge and Schrand 2010). However, little work has been done to validate these metrics. Ecker et al. (2006) performs construct validity on their "e-loading" proxy for accruals quality. Furthermore, Doyle, Ge and McVay (2007) , provide evidence on the extent to which internal control weakness is associated with accruals quality, "abnormal" accruals and earnings persistence. In addition Dechow et al. (2010) shows evidence on the ability of total accruals and several versions of the Jones model to predict restatements. This chapter complements their study by providing additional construct validation of existing earnings quality metrics. Specifically, this chapter provides evidence on which earnings quality metrics are associated with implementation errors.

Second, while prior studies evaluate how metrics of earnings quality relate to the fundamental characteristics of the firm, they do not evaluate how these earnings quality metrics capture the firm's underlying process of implementing the accounting standards (Dechow, Ge and Schrand 2010). This study fills this gap in the literature by clearly recognising the distinction between the fundamental characteristics of the firm and the implementation process as well as providing evidence on the earnings quality metrics that are more likely to capture implementation errors. As such these findings guide accounting researchers in making the appropriate choice of earnings quality metrics that match their hypothesis.

The remainder of this chapter is organised as follows. Section 3.2 reviews the relevant literature and develops the hypothesis. Section 3.3 outlines the research design. Section 3.4 reports the results on the association between earnings quality, fundamental characteristics of

the firm and implementation errors. Section 3.5 provides additional analyses and section 3.6 concludes the chapter.

3.2   Literature review and hypothesis development

This section reviews; the importance of implementation errors in understanding earnings quality and the models proposed in the financial accounting literature to measure implementation errors. Finally this section identifies two experimental settings whereby implementation errors are directly observable (the accounting restatement setting and the IFRS setting).

3.2.1   Reported earnings and the implementation process

In this chapter, the quality of reported earnings is viewed from the accounting standard setter's perspective, that is, reported earnings is of high quality when reported earnings are consistent with the intent of the accounting standards. However implementations that subvert the intent of the accounting standards are viewed as undesirable, leading to low quality earnings.

As argued in Chapter 2, to ensure successful implementation outcomes, companies need to attract competent implementers (e.g. CFOs) who have, (i) the technical ability to understand the implications of the accounting standards to their underlying business model, (ii) the ability to undertake all the appropriate measures to ensure that the financial reporting requirements of the standards are met (e.g. strong internal control systems Doyle, Ge and McVay 2007 and (iii) the incentive to do so (Graham, Harvey and Rajgopal 2005; Hoitash, Hoitash and Johnstone 2009). Companies also need to appoint high quality external auditors

who have the expertise and incentives to detect and reveal such accounting errors (e.g. DeFond and Jiambalvo 1991; Weber and Willenborg 2003). Because the implementation of accounting standards is cognitively demanding, this can lead to errors in reported earnings even in the absence of intentional misreporting. For example, the implementation of the accounting standards could be performed in good faith but unskilfully by less competent implementers.

The next section reviews the different models proposed in the literature to assess the quality of implementation decisions.

3.2.2   Settings to evaluate implementation decisions

3.2.2.1 Modelling implementation decisions

The accounting literature offers several models designed to capture the quality of the implementation decisions made by accounting experts. However, the general tendency in accounting research has been to consider implementation decisions that are mainly driven by incentives of the implementers to manipulate earnings (see Fields, Lys and Vincent 2001 for a survey of the literature).

Healy (1985) proposes total accruals (reported earnings minus cash flows from operations) as a measure of "abnormal" accruals. This is because errors in reported earnings usually arise from errors in estimating the accruals component of earnings (both intentional and unintentional errors). This suggests a positive association between total accruals and implementation errors. Recent findings of Dechow et al. (2010) document that misstating

firms have higher levels of total accruals compared to a control group of non-misstating firms.

The most popular models of earnings manipulation proposed in the accounting literature are the Jones model and several modified versions of the Jones model that take into account a number of accounting fundamentals (e.g. Jones 1991; Dechow, Sloan and Sweeney 1996). The main objective of the Jones and the modified Jones models is to separate accruals between "normal" accruals and "abnormal" accruals. The "abnormal" accrual component is viewed as a measure of errors in the accruals estimation process. Therefore implementation errors are expected to increase as the "abnormal" component of accruals increases. "Abnormal" accruals estimated from these models have been shown to be associated with internal corporate governance practices (e.g. Bowen, Rajgopal and Venkatachalam 2008; Lev 1983) and external auditor quality (e.g. DeFond and Jiambalvo 1991; Kanagaretnam, Lobo and Dong-Hoon 2004). Although less powerful than total accruals, the "abnormal" accruals estimated from the modified Jones model has shown some ability to detect SEC enforcement releases (e.g. Dechow et al. 2010).

Dechow and Dichev (2002) views the quality of accruals and earnings as decreasing in the magnitude of estimation errors. They propose a model of accruals quality based on the matching of accruals to cash flows (past, current and future cash flows). They identify the standard deviation of the residuals from their model to proxy for the magnitude of estimation errors. They argue that that the estimation errors from their model capture both implementation errors and intentional errors. This model is further extended by Francis et al. (2004) who decompose the residual from the Dechow and Dichev (2002) model into innate estimation errors and discretionary estimation errors. According to Francis et al. (2004), the

discretionary estimation errors represent the outcome of implementation decisions that involved intentional misstatements of earnings. The possibility that estimation errors are also affected by unintentional estimation errors beyond the "innate" characteristics of the firm is not addressed in their analysis. Using the Dechow and Dichev (2002) model as modified by McNichols (2002), Doyle, Ge and McVay (2007) document a positive association between weak internal controls and low quality accruals. Their findings remain robust to the inclusion of fundamental characteristics of firms. Furthermore, Srinidhi and Gul (2007) document a positive association between audit fees (which reflect more effort and better judgments) and accruals quality. These findings provide validity to this model because weak internal controls/low audit fees allow both implementation errors and intentional errors in the accruals estimation process.

Another measure of implementation decisions proposed in the literature is, earnings persistence, which is the ability of earnings to sustain itself. Persistent earnings are viewed as more desirable as it is recurring (e.g. Schipper and Vincent 2003). Earnings persistence has been explained to a large extent by the uncertainty of the business process in terms of product type, industry competition, capital intensity (e.g. Lev 1983). The most studied determinant of persistence has however, been the accruals and different components of accruals (e.g. Sloan 1996; Dechow and Ge 2005).[24] The general findings in prior empirical studies highlight that accruals are less persistent than cash flow and this is likely to be driven by errors that reside in accruals (Xie 2001).[25] Further evidence on the effect of implementations errors made in estimating accruals and earnings persistence is documented by Doyle, Ge and McVay

---

[24] For example Sloan (1996) document that the accruals component of earnings is less persistent than the cash flow component of earnings while Dechow and Ge (2005) document that large negative accruals (unusual items) are less persistent than the cash flow component.

[25] Xie (2001) decompose accruals between normal and "abnormal" accruals. Xie (2001) finds that the persistence parameters on cash flows, normal accruals and "abnormal" accruals are 0.73, 0.7 and 0.57, respectively.

(2007). They show that firms with internal control weaknesses have less persistent earnings due to both unintentional implementation errors and intentional errors that reside in reported earnings. Therefore it is expected that as implementation errors in reported earnings increase, earnings persistence decreases.

Predictability has also been used in the literature to capture the ability of earnings to predict itself (Richardson 2003; Schipper and Vincent 2003). More predictable earnings have been viewed as more desirable. Using analyst forecast errors as a measure of earnings predictability, Elliott and Philbrick (1990) documents a negative association between earnings predictability and changes in accounting standards. A change in accounting standards temporarily increases the complexity in the implementation process leading to implementation errors in reported earnings. Therefore, it is expected that as implementation errors in reported earnings increase, earnings predictability decreases.

Finally earnings smoothness has been another avenue for prior studies to determine whether implementation errors in accruals (intentional errors and unintentional errors) affect earnings smoothness. Smooth earnings have been viewed as having both a fundamental component which increases quality, as well as an "artificial" component which decreases quality. It is viewed that smooth (artificial) earnings, in which reported earnings have less volatility than the fundamental earnings process, represent distortions (Dechow, Ge and Schrand 2010).[26] The focus of prior studies has been on the artificial component of smoothed earnings and empirical findings to date, document evidence on the incentives for earnings smoothing through accounting choices or real activities (e.g. Graham, Harvey and Rajgopal 2005; Kanagaretnam, Lobo and Dong-Hoon 2004). Moreover, other studies have shown that

---

[26] However, smooth earnings can also be of higher quality if the firms fundamental earnings process is smoother that the cash receipt/payment process.

unbiased application of specific GAAP methods also affects earnings smoothness (e.g, Barefield and Comiskey 1971; and Dharan 1987). This chapter takes the view that managers use their private information about future earnings to smooth out fluctuations in earnings to achieve a more representative earnings number. However this process of smoothing earnings is impacted by errors in the implementation process. It is expected that, as implementation errors in reported earnings increase, earnings smoothness decreases.

While these proposed models provide one avenue to better understand errors driven by implementation decision errors, another research avenue is to identify a setting whereby implementation decisions that result in significant bias in reported earnings, are directly observable.

3.2.2.2 Observing implementation decisions – Restatements

According to the SEC, restated earnings is "the most visible indicator of improper accounting" (Palmrose and Scholz 2004). Material restatements occur as a result of (i) aggressive management accounting practices or negligence from management or lower level employees (e.g. DeFond and Jiambalvo 1991),[27] (ii) internal control errors in applying the accounting standards rather than intentional misreporting and (iii) auditors failing to detect the misstatements. As such these misstatements occur as a result of both biased and unbiased errors that arise when implementing accounting standards.

More recent studies have focused on distinguishing biased and unbiased errors in restatement firms. For example, to demonstrate the importance of partitioning unbiased errors versus

---

[27] DeFond et al. (1991) found earnings errors are consistent with managers responding to economic incentives arising because of deteriorating financial conditions.

irregularities, Hennes, Leone and Miller (2008) investigate the relation between restatement and CEO and CFO turnover. They find that the turnover rate of CEOs and CFOs is higher for firms classified as having irregularities than for firms that have unbiased errors. Their findings highlight the importance of distinguishing between the two types of errors.

However, while restated earnings provides an avenue to investigate the implementation decisions that led to initial "poorer" quality earnings, the restatement sample suffers from several limitations. In particular the sample of restatement firms is biased towards how these firms are detected and the firm's decision to report the misstatement. This further limits the ability to provide large sample evidence.[28] The sample is also biased towards the inclusion of the most obvious cases of implementation decisions to misreport earnings which limit the generalizability of the empirical results in that area of research (e.g. Beasley 1996; Dechow, Sloan and Sweeney 1996).

This chapter adds to this body of research by investigating an experimental setting whereby the unbiased judgements and decisions made by the implementers of accounting standards is directly observable when a new set of accounting standard is implemented.

3.2.2.3 Observing implementation decisions – IFRS errors

The adoption of the IFRS in Australia provides a unique opportunity to investigate the judgements and decisions made when implementing a new set of accounting standards. This study focuses on Australia (as opposed to European countries) because unlike Europe, there were no voluntary adoptions of the IFRS in Australia. Therefore the sample is not

---

[28] For example in their study Beasley (1996) identifies 75 firms accused of wilful violation of GAAP from 1982-1991 while Dechow et al. (1996) identifies 95 firms from the period 1982-1992.

confounded by firms' incentives to voluntarily adopt early versus firms' incentives not to adopt early.

During the transition to IFRS, Australian firms were required under AASB 1047 "Disclosing the Impacts of Adopting A-IFRS" to provide a reconciliation of their earnings from the Australian Generally Accepted Accounting Principles (GAAP) to their earnings based on the International Financial Reporting Standards (IFRS) in the transition year.[29] Furthermore, upon first-time adoption in the subsequent year firms were required by AASB 1 "First-time Adoption of A-IFRS" to provide the same reconciliation. For most companies the estimated IFRS earnings in 2005 and the actual IFRS earnings in 2006 were different. The difference between the estimated IFRS earnings in the transition year and the re-stated IFRS earnings in the adoption year, is referred to as, implementation error.

These implementation errors arise due to the increased complexity implementers of accounting standards face, when a country moves from its home GAAP to a new set of accounting standards. For example while some of the IFRS changes impacted on the recognition and measurement process of items that previously existed on the financial statements (e.g. AASB 138 Intangible Assets and AASB 136 Impairment), other IFRS changes lead to the implementation of completely new standards (AASB 2 Share-based Payments and AASB 139 Financial Instruments: Recognition and measurement). These new standards placed greater demands on the expertise of the implementers and are expected to result in less precise implementations even in the absence of incentives to misreport

---

[29] Since the announcement of the conversion to IFRS, ASIC provided a substantial amount of guidance relating to the reconciliation disclosure requirements of A-IFRS. In a number of media releases ASIC encouraged companies and financial advisors to be prepared and warned them that failure to prepare for changes may result in breach of the financial reporting requirement of the Corporations Act (ASIC media release, 21 Oct 2003). Further ASIC released a guide to disclosing the impact of the new IFRS (ASIC media release, 22 April 2004). ASIC implicitly stated their view regarding good disclosure of the impact of adopting IFRS in order to minimize non-compliance.

(Schipper 2010). It is contended that these implementation errors are unlikely to be contaminated by other confounding effects such as intentional misstatements as there were no incentives to overstate or understate earnings in the transition year (Goodwin, Ahmed and Heaney 2007).

Conceptually it makes sense that low implementation errors in reported earnings are the foundation to high quality earnings. Since the earnings quality metrics discussed previously (Section 3.2.2.1) capture the extent to which reported earnings are measured with error, it is expected that there is an association between these earnings quality metrics and implementation errors during the transition to the IFRS. This leads to the following hypothesis,

H_1: *There is an association between some commonly used earnings quality metrics and implementation errors in reported earnings.*

A positive association is expected between total accrual, "abnormal" accruals, accruals quality, earnings predictability and earnings smoothness, and implementation errors. This is because larger values of: total accrual, "abnormal" accruals, accruals quality, earnings predictability and earnings smoothness, are indicative of larger implementation errors during the accruals estimation process. A negative association is expected between earnings persistence and implementation errors, because more persistent earnings are indicative of lower errors in accruals during the implementation process.

3.3 Research design

3.3.1 Sample and data collection

Table 3.1 Panel A summarises the sample derivation. Furthermore, Table 3.1 Panel B provides information on the sample selected by GICS sector.

Table 3.1   **Sample attrition and industry breakdown.**

Panel A: Sample attrition

	Number
Firms in the S&P/ASX Fortune 500 in 2005	500
Less:	
Firms without annual reports in 2005	(31)
Firms reporting in non-Australian GAAP	(15)
Firms that changed financial year ends	(4)
Firms with less than 10 years of prior year data to compute earnings quality metrics	(182)
Firms with other missing data (mainly consisting of financial firms that do not have all the required data)	(70)
Sample for testing H_1 (see Table 3.3 and 3.4)	198

Panel B: GICS sector breakdown

Industry	Number	Percentage
Consumer Discretionary & Staples	54	27.27%
Energy	18	9.09%
Health Care	16	8.08%
Industrial	27	13.64%
Financials	26	13.13%
Material	46	23.23%
Information Technology	7	3.54%
Telecommunication Services	3	1.52%
Utilities	1	0.51%
Sample for testing the H_1 (see Tables 3.3 and 3.4)	198	100%

The sample initially includes all Australian firms in the S&P ASX Top 500 for the year 2005. Deleted from the sample are firms with missing annual reports in 2005 (31 firms),

firms reporting in non-Australian GAAP (15 firms) and firms that changed financial year ends (4 firms). Also deleted from the sample are firms that do not have at least 10 years of prior data to compute some of the earnings quality metrics (182 firms) and firms with other missing data (70 firms). The final sample consists of 198 firms. Table 3.1 Panel B, indicates that the sample is from a range of different industries, reducing the potential for industry bias. The largest representation is from the Consumer Discretionary and Staples industries and Material, making up 27.27% and 23.23% of the sample respectively.

The data for implementation errors is hand-collected from financial statements. Financial characteristics of firms used to compute the earnings quality metrics and financial characteristics of firms used as controls are obtained from the Aspect-Huntley database. The Aspect-Huntley database provides financial data starting from 1990, while financial reports are only available from the database, starting 1993. The sample used in this chapter starts from 1991 to ensure that there is adequate data for firms reporting using December financial year ends and June financial year ends. Therefore it is possible to obtain financial data for a maximum of fourteen years. A cut off of ten years is used as a minimum data requirement to compute some of the earnings quality metrics.

Because implementation errors are directly observable for one financial year, it is difficult to determine how long implementation errors have existed in the firm's reported earnings (and hence how long to calculate the earnings quality metrics). In their study on internal control weaknesses and accruals quality, Doyle, Ge and McVay (2007) argues that on average internal control problems have existed several years prior to their disclosure, if not since the firm's inception. As such, they calculate their accruals quality metrics up to the year

preceding the disclosure of internal control weaknesses. The same approach is used in this chapter, whereby the earnings quality metrics are calculated from 1991 to 2005.

3.3.2 Experimental Design

Two main tests are conducted. The first test is a univariate test that examines the correlations between six earnings quality metrics and implementation errors. The second test is a multivariate test that uses OLS regressions to examine the relation between the six earnings quality metrics, firm fundamentals and implementation errors. The following model is used:

Model 1:

$$Earningsquality_{it} = \beta + \beta_1 ERROR_{it} + \beta_2 TA_{it} + \beta_3 \sigma(CFO)_{it} + \beta_4 \sigma(SALES)_{it} + \beta_5 OPERCYCLE_{it} + \beta_6 NEG_{it} + \beta_7 CAP\_INT_{it} + \varepsilon_i$$

(1)

The variables from the above equation are defined below.

3.3.2.1 Variables definition

Six measures of earnings quality are used as dependent variables (TACC, MJONES, DD, PERSIST, PREDICT and SMOOTH).

Total accruals

The measure of total accruals (TACC) is the difference between net operating income before extraordinary items minus cash flow from operations. A positive association is expected between TACC and implementation errors.

"Abnormal" accruals

Various models that decompose accruals into "normal" and "abnormal" accruals have been proposed in the literature. The "abnormal" portion is assumed to capture errors made in the accruals estimation process, which is not explained by firm fundamentals (which could be intentional or unintentional errors). Chapter 3 adopts the firm-specific, times-series version of the modified Jones model. "Abnormal" accruals are measured by subtracting normal accruals from total accruals (TACC). [30]

The modified-Jones discretionary accruals model:

$$TACC_{it} = \alpha_0 + \alpha_1(REV_{it} - \Delta REC_{it}) + \alpha_2 PPE_{it} + \varepsilon_i \qquad \text{EQ.1}$$

Where:

$TACC_{it}$ =   net operating income before extraordinary items less operating cash flows for firm i in year t;

ΔREV_{it} =   revenues for firm i in year t less revenues in year t-1;

ΔREC_{it} =   net accounts receivable for firm i in year t less net accounts receivables in year t-1;

PPE_{it} =   Year end property, plant and equipment for firm i in year t;

ε_i =   "Abnormal" accruals (MJONES).

All variables [including constant] are scaled by lagged total assets.

A positive association is expected between "abnormal" accruals (MJONES) and implementation errors.

Accrual quality

The Dechow and Dichev (2002) model, is used to measure accruals quality.

---

[30] The Jones model and the modified Jones model adjusted for growth in sales are also used in additional tests.

$$TACC_{it} = \alpha_0 + \alpha_1 CFO_{it-1} + \alpha_2 CFO_{it} + \alpha_3 CFO_{it+1} + \varepsilon_i$$ EQ.2

Where:

$TACC_{it}$	=	net operating income before extraordinary items less operating cash flows for firm i in year t
CFO_{it-1}	=	firm i's cash flow from operations in year t-1
CFO_{it}	=	firm i's cash flow from operations in year t
CFO_{it+1}	=	firm i's cash flow from operations in year t+1

All variables [including constant] are scaled by lagged total assets.

The measure of accruals quality is based on the standard deviation of estimated residuals ($\sigma\varepsilon_{j,t}$), hereafter, DD from EQ. (2). Large (small) values of DD correspond to lower (higher) accruals quality and lower (higher) earnings quality.

A positive association is expected between DD and implementation errors.

Earnings persistence

Earnings persistence as the slope coefficient from a regression of current earnings on lagged earnings.

$$EARNS_{it} = \alpha + \delta_1 EARNS_{it-1} + \varepsilon_i$$ EQ.3

Where:

$EARN_{it}$	=	firm's i net income before extraordinary items in year t
$EARN_{it-1}$	=	firm's i net income before extraordinary items in year t-1

All variables [including constant] are scaled by lagged total assets.

The measure capturing earnings persistence is based on the slope-coefficient estimate (δ_1, hereafter, PERSIST) from EQ. (3). Values of δ_1 close to 1 (or greater than 1) indicate highly persistent earnings which correspond to high quality earnings.

A negative association is expected between earnings persistence and implementation errors.

Earnings predictability

This element of earnings captures the ability of earnings to predict itself (Lipe 1990).

$$PREDICTABILITY_{jt} = \sqrt{\sigma^2(\upsilon_{it})} \qquad\qquad EQ.4$$

Where:

$\sigma^2(\upsilon_{it})$ =   the estimated-error variance of firm i in year t, calculated from Eq. (3) over at least 10 years

Large values of PREDICT imply less predictable earnings, which correspond to low quality earnings.

A positive association is expected between PREDICT and implementation errors.

Smooth earnings

Earnings smoothing is measured as the standard deviation of earnings divided by the standard deviation of operating cash flow (Leuz, Nanda and Wysocki 2003; Francis et al. 2004)

$$SMOOTH_{it} = \frac{\sigma(EARN_{it}/TotalAssets_{it-1})}{\sigma(CFO_{it}/TotalAssets_{it-1})} \qquad\qquad EQ.5$$

Where:

σ	=	firm i's standard deviation (10 years minimum)
$EARN_{it}$	=	firm i's net income before extraordinary items in year t.
CFO_{it}	=	firm i's operating cash flows in year t

All variables [including constant] are scaled by lagged total assets.

Consistent with Francis et al. (2004), Chapter 3 takes the view that managers use their private information to smooth out transitory fluctuations in order to present more useful earnings numbers. Thus, small (large) values of SMOOTH indicate more (less) earnings smoothness and high (low) earnings quality.

A positive association is expected between smoothness and implementation errors.

Implementation errors

Implementation errors (ERRORS) are measured as the difference between the estimated IFRS earnings in the transition year and re-stated IFRS earnings in the adoption year, scaled by total assets. First, eighteen categories where a restatement were made are identified. The difference between the estimated amounts and the restated amounts for each category are identified. Then, the absolute amount of these differences are calculated and scaled by total assets to be consistent with the scaling used for all the earnings quality metrics adopted in this chapter (see Appendix 1 for an example based on the Qantas annual reports for 2005 and 2006).

Fundamental characteristics of the firm

The model includes firms fundamental variables identified in prior literature (Dechow and Dichev 2002; Francis et al. 2004).The log of total assets (TA) is included to control for size. Larger firms are expected to have higher quality earnings. This is because larger firms have the financial ability to employ better quality implementers, compared to smaller firms. Also included is the model are; cash flow volatility (σ(CFO)) and sales volatility (σ(SALES)) to control for uncertainty in the operating environment. σ(CFO) is measured as the standard deviation of the firm's ten year cash flow from operations scaled by lagged total assets. σ(SALES) is measured as the standard deviation of the firm's ten-year sales revenue scaled by lagged total assets. Firms with uncertain operating environments are expected to have lower quality earnings. The length of operating cycle (OPERCYCLE) is also controlled for, because longer operating cycles indicate greater uncertainty, which may lead to more errors and hence decrease the quality of earnings. OPERCYCLE is measured as the log of the sum of the firm's days accounts receivable and days inventory. The frequency of loss reporting (NEG) is included because losses are viewed as shock to the firm operating environment. As a consequence, the quality of earnings is lower in the presence of losses. Finally following Francis et al. (2004) the ratio of net book value of property, plant & equipment is included to control for capital intensity (CAP_INT). This is because capital intensive firms have more volatile earnings due to operating leverage.

3.4 Results

3.4.1 Descriptive statistics and variables definition

Table 3.2 reports the descriptive statistics on the earnings quality metrics, implementation errors and firm fundamentals. Definitions of the variables used are also provided.

Table 3.2   Descriptive statistics.

Variables	Mean	Std.	Min	Q1	Median	Q3	Max
TACC	0.091	0.216	0.000	0.022	0.045	0.100	2.791
MJONES	0.009	0.336	0.000	-0.100	-0.014	0.088	3.119
DD	0.244	0.393	0.007	0.056	0.113	0.255	2.700
PERSIST	0.336	0.248	1.166	0.509	0.297	0.000	0.129
PREDICT	0.205	0.394	0.005	0.094	0.062	0.181	2.52
SMOOTH	1.381	1.547	0.083	0.593	0.930	1.527	11.53
ERRORS (absolute value in millions)	29.543	125.463	0.000	0.344	3.650	17.135	1643.400
ERRORS[31]	36.818	90.835	0.000	2.000	9.000	28.000	695.000
TA (millions)	1649.130	3584.652	5.842	117.972	354.384	1548.422	36310.000
TA (log)	8.629	0.730	6.767	8.072	8.549	9.190	10.560
σ(CFO)	0.175	0.321	0.008	0.039	0.075	0.167	2.434
σ(SALES)	0.525	1.003	0.000	0.139	0.250	0.505	8.975
OPERCYCLE	1.890	0.449	0.000	1.719	1.934	2.081	3.852
NEG	0.256	0.287	0.000	0.000	0.125	0.438	1.000
CAP_INT	0.597	0.492	0.000	0.207	0.489	0.904	2.455

The sample consists of 198 firm observations. Firms are required to have at least 10 years of prior year data to be included in the sample. All variables are defined below.

---

[31] ERRORS has been multiplied by 1000

Variables descriptions.

TACC	=	the difference between operating profit after tax before extraordinary items (scaled by lagged total assets) and cash flow from operations (scaled by lagged total assets), estimated in year t;
MJONES	=	the absolute discretionary accruals from a firm-specific time-series regressions of the Modified Jones model, estimated from 1991 to 2005. The predicted model is estimated from 1991-2004, then fitted with the actual values in 2005;
DD	=	the standard deviation of the residuals from a regression of total accruals and lagged operating cash flow, current operating cash flow and lead operating cash flow, estimated from 1991 to 2005;
PERSIST	=	the slope coefficient of firm specific time-series regressions of current earnings on lagged earnings, estimated from 1991 to 2005;
PREDICT	=	the standard deviation of the residuals of firm specific regression of current earnings on lagged earnings, estimated from 1991 to 2005;
SMOOTH	=	the ratio of standard deviation of earnings to the standard deviation of cash flow from operations, estimated from 1991 to 2005;
ERRORS	=	the sum of the absolute amount of actual IFRS amount in 2006 minus the estimated IFRS amount in 2005, scaled by total assets; $$\sum \left| \frac{IFRS_{2006} - IFRS_{2005}}{TA} \right|;$$
TA	=	the log of total assets in the prior year;
$\sigma(CFO)$	=	the standard deviation of the firm's ten-year cash flow from operations scaled by lagged total assets, from 1991 to 2005;
$\sigma(SALES)$	=	the standard deviation of the firm's ten-year sales revenue scaled by lagged total assets, from 1991 to 2005;
OPERCYCLE	=	the log of the sum of the firm's days accounts receivable and days inventory calculated from 1991 to 2005;
NEG	=	the ratio of the number of years of losses relative to the total number of years of data from 1991 to 2005;
CAP_INT	=	the ratio of net book value of PPE to total assets.

The mean (median) on JONES is 0.009 (-0.014). In comparison Dechow, Sloan and Sweeney (1995) report mean (median) of 0.002 (0.001) for their sample of 1000 randomly selected firm-years. Furthermore, the mean (median) on accruals quality, DD is 0.244 (0.113). In

comparison Dechow and Dichev (2002) report mean (median) of 0.028 (0.02) while Doyle, Ge and McVay (2007) report mean (median) of approximately 0.055 (0.043). The accruals quality proxy is higher than those produced in prior studies and this is possibly due to sample size. This could also be due to the fact that the sample firms are larger compared to prior studies (see TA below). Meanwhile, the mean and median on PERSIST and PREDICT is 0.336 (0.297) and 0.205 (0.062) respectively. In comparison, Francis et al. (2004) report mean (median) on PERSIST and PREDICT of 0.482 (0.52) and 0.876 (0.536) respectively for their sample of firms from 1975 to 2001. While the mean for PREDICT is slightly lower in this chapter's sample, the mean for PERSIST is quite low compared to Francis et al. (2004).[32] The mean (median) for SMOOTH which is the ratio of standard deviation of earnings to the standard deviation of cash flow from operations is 1.381 (0.930). Meanwhile Francis et al. (2004) reports a mean (median) of 0.64 (0.578). Due to the dispersion of the earnings quality metrics, firms are ranked based on each earnings quality metric.

The reported firm fundamentals are generally consistent with prior literature. The sample mean (median) values are 8.629 (8.549) for TA, 0.175 (0.075) for $\sigma(CFO)$, 0.525 (0.250) for $\sigma(SALES)$, 1.890 (1.934) for OPERCYCLE and 0.256 (0.125) for NEG. In comparison results reported by Dechow and Dichev (2002) are 5.50 (5.44) for TA, 0.06 (0.051) for $\sigma(CFO)$, 0.215 (0.166) for $\sigma(SALES)$, 2.149 (2.119) for OPERCYCLE and 0.10 (0.037) for NEG. The mean (median) on the capital intensity variable (CAP_INT) is 0.597 (0.489) which higher than CAP_INT reported on US data. For example, Francis et al. (2004) report mean (median) for CAP_INT of 0.366 (0.314).

---

[32] The sample used by Francis et al. (2004) covers 27 years, from 1975 to 2001 while the sample used in this thesis covers 12 years, from 1993 to 2005.

Finally, descriptive on implementation errors (ERRORS) suggests that the mean (median) ERRORS is $29.543 ($3.650) millions. This descriptive suggest that the data is skewed to the left due to the fact that some firms did not report implementation errors. The chapter also ranks firms based on ERRORS.

3.4.2 *Univariate evidence on the association between earnings quality metrics and implementation errors*

Table 3.3 reports the correlation matrix of based on the ranked values of earnings quality metrics (TACC, DD, MJONES, PERSIST, PREDICT and SMOOTH) and implementation errors (ERRORS).

Table 3.3   **Univariate tests on the association between earnings quality metrics and implementation errors.**

Correlation coefficient matrix of ranked earnings quality metrics and ranked implementation errors

		ERRORS	TACC	MJONES	DD	PERSIST	PREDICT	SMOOTH	TA	σ(CFO)	σ(SALES)	OPERCYCLE	NEG	CAP_INT
TACC	Correlation (p-value)	0.239 (0.001)***	1.000											
MJONES	Correlation (p-value)	0.055 (0.441)	0.433 (0.000)***	1.000										
DD	Correlation (p-value)	0.079 (0.268)	0.330 (0.000)***	0.374 (0.000)***	1.000									
PERSIST	Correlation (p-value)	-0.136 (0.056)*	-0.062 (0.388)	-0.145 (0.042)**	-0.158 (0.026)***	1.000								
PREDICT	Correlation (p-value)	0.088 (0.219)	0.258 (0.000)***	0.322 (0.000)***	0.827 (0.000)***	-0.192 (0.007)***	1.000							
SMOOTH	Correlation (p-value)	0.009 (0.905)	0.073 (0.308)	0.175 (0.014)**	0.242 (0.000)***	-0.273 (0.000)***	0.598 (0.000)***	1.000						
TA	Correlation (p-value)	0.015 (0.834)	-0.168 (0.018)**	-0.307 (0.000)***	-0.600 (0.000)***	0.034 (0.632)	-0.549 (0.000)***	-0.200 (0.005)***	1.000					
σ(CFO)	Correlation (p-value)	-0.074 (0.300)	0.098 (0.170)	0.178 (0.012)**	0.512 (0.000)***	-0.146 (0.040)**	0.463 (0.000)***	-0.013 (0.857)	-0.295 (0.000)***	1.000				
σ(SALES)	Correlation (p-value)	-0.017 (0.817)	-0.017 (0.813)	0.083 (0.245)	0.219 (0.002)***	-0.155 (0.029)**	0.145 (0.042)**	-0.129 (0.070)*	-0.010 (0.888)	0.378 (0.000)***	1.000			
OPERCYCLE	Correlation (p-value)	-0.053 (0.458)	0.023 (0.748)	0.071 (0.324)	0.109 (0.125)	0.018 (0.797)	0.028 (0.695)	-0.104 (0.145)	-0.096 (0.179)	0.080 (0.262)	-0.013 (0.861)	1.000		
NEG	Correlation (p-value)	0.027 (0.709)	0.257 (0.000)***	0.244 (0.001)***	0.679 (0.000)***	-0.136 (0.055)*	0.763 (0.000)***	0.477 (0.000)***	-0.611 (0.000)***	0.421 (0.000)***	0.019 (0.789)	0.036 (0.612)	1.000	
CAP_INT	Correlation (p-value)	0.069 (0.338)	0.096 (0.180)	0.174 (0.015)**	-0.175 (0.014)**	-0.040 (0.581)	-0.140 (0.049)**	0.020 (0.776)	0.206 (0.004)***	-0.171 (0.016)**	-0.011 (0.882)	-0.051 (0.480)	-0.103 (0.149)	1.000

***,**,* significance at the 1, 5 and 10 percent levels, respectively, using a two-tailed test. TACC is the difference between operating profit after tax before extraordinary items (scaled by lagged total assets) and cash flow from operations (scaled by lagged total assets), estimated in year t; MJONES is the absolute discretionary accruals from a firm-specific time-series regressions of the Modified Jones, estimated from 1991 to 2005; DD is the standard deviation of the residuals from a regression of total accruals and lagged operating cash flow, current operating cash flow and lead operating cash flow, estimated from 1991 to 2005; PERSIST is the slope coefficient of firm specific time-series regressions of current earnings on lagged earnings, estimated from 1991 to 2005; PREDICT is the standard deviation of the residuals of firm specific regression of current earnings on lagged earnings, estimated from 1991 to 2005; SMOOTH is the ratio of standard deviation of earnings to the standard deviation of cash flow from operations, estimated from 1991 to 2005; ERRORS is the sum of the absolute amount of actual IFRS amount in 2006 minus the estimated IFRS amount in 2005 scaled by total assets $\sum \left| \dfrac{IFRS_{2006} - IFRS_{2005}}{TA} \right|$.

Table 3.3 provides preliminary evidence on the earnings quality metrics that are more likely correlated with implementation errors. Table 3.3 reveals a positive correlation between TACC and ERRORS at the 1% level (r= 0.239) and a negative correlation between PERSIST and ERRORS at the 10% level (r= -0.136). This provides preliminary results for TACC and PERSIST to support H_1. On the other hand MJONES, DD, PREDICT, and SMOOTH are not correlated with ERRORS. PERSIST displays a negative association with the other earnings quality metrics as a high value of PERSIST represent high quality earnings, whereas a high values of TACC, MJONES, DD, PREDICT and SMOOTH represent low quality earnings. The positive correlation between DD and PERSIST (r= -0.158) is consistent with the results documented by Dechow and Dichev (2002), who argue that more accruals errors (leading to high DD) results in lower earnings persistence. Meanwhile, the correlations between PREDICT and DD is large (r = 0.827). The correlation across the other earnings quality metrics vary from -0.062 to 0.827.

Turning to the control variables, generally there is no correlation between ERRORS and the control variables. This may suggest that implementation errors are more likely to be driven by the characteristics of the implementers, rather than the fundamental characteristics of the firm. There is a negative correlation between TA and σ(CFO) at the 1% level (r= -0.295), suggesting that larger firms have more stable operating environments compared to smaller firms. There is also a negative correlation between TA and NEG at the 1% level (r= -0.611) and a positive correlation with CAP_INT at the 1% level (r= 0.206). This suggests that larger firms are less likely to make losses and are more capital intensive. There is also a positive correlation between the two measures of uncertainty of the operating environment σ(CFO) and σ(SALES) at the 1% level (r= 0.378). In addition there is a positive correlation between

σ(CFO) and NEG and between σ(CFO) and CAP_INT at the 1% and 5% levels, respectively (r=0.421 and -0.171, respectively).

The highest correlation is between TA and NEG, displaying a correlation of -0.611. Collinearity diagnostics show that the VIF factor on the right-hand-side variables is less than 1.83 in model 1, suggesting that multicollinearity is not likely to disturb the direction of the coefficients in the regression estimation model.

To provide further evidence on the association between earnings quality metrics and implementation errors, multivariate tests are performed below.

3.4.3 *Multivariate evidence on the association between earnings quality metrics and implementation errors*

Table 3.4 reports the results for multivariate tests on the association between earnings quality, fundamental characteristics of the firm and implementation errors.

Table 3.4   **Multivariate tests on the association between earnings quality metrics and implementation errors.**

This table provides evidence on the relation between earnings quality metrics, implementation errors and fundamental characteristics of the firm. The table reports results from the following OLS regression:

$$Earningsquality_{it} = \beta + \beta_1 ERRORS_{it} + \beta_2 TA_{it} + \beta_3 \sigma(CFO)_{it} + \beta_4 \sigma(SALES)_{it} + \beta_5 OPERCYCLE_{it} + \beta_6 NEG_{it} + \beta_7 CAP\_INT_{it} + \varepsilon_t$$

		Dependent variables: Earnings quality metrics measured as:											
		TACC		MJONES		DD		PERSIST		PREDICT		SMOOTH	
Variables	Pred Sign	Coefficient (t-stats)	Coefficient (t-stats)	Coefficient (t-stats)	Coefficient (t-stats)	Coefficient (t-stats)	Coefficient (t-stats)	Coefficient (t-stats)	Coefficient (t-stats)	Coefficient (t-stats)	Coefficient (t-stats)	Coefficient (t-stats)	Coefficient (t-stats)
Intercept		107.947	85.187	266.102	261.443	239.719	231.518	158.318	169.950	148.750	141.356	18.222	21.212
		(1.58)*	(1.31)	(4.23)***	(4.14)***	(5.40)***	(5.23)***	(2.34)***	(2.52)**	(3.49)***	(3.75)***	(0.32)	(0.36)
ERRORS	+/-		0.230		0.056		0.095		-0.135		0.086		-0.035
			(3.37)***		(0.84)		(2.06)**		(-1.91)**		(1.68)**		(-0.57)
Firm fundamentals:													
TA	-	-3.497	-3.978	-23.534	-23.670	-21.097	-21.297	-5.305	-5.021	-9.497	-9.678	9.165	9.238
		(-0.50)	(-0.58)	(-3.55)***	(-3.56)***	(-4.50)***	(-4.58)***	(-0.74)	(-0.71)	(-2.11)**	(-2.59)***	(1.50)	(1.51)
σ(CFO)	+	2.906	6.990	17.217	18.273	34.037	35.731	-11.186	-13.590	22.429	23.966	-38.771	-39.389
		(0.19)	(0.47)	(1.20)	(1.26)	(3.36)***	(3.54)***	(-0.72)	(-0.88)	(2.30)***	(2.41)***	(-2.94)***	(-2.97)***
σ(SALES)	+	-1.511	-1.768	2.512	2.440	7.809	7.703	-7.392	-7.240	4.763	4.667	-3.380	-3.341
		(-0.35)	(-0.42)	(0.61)	(0.59)	(2.69)***	(2.67)***	(-4.422)**	(-1.65)*	(1.71)**	(1.68)**	(-0.89)	(-0.88)
OPERCYCLE	+	1.937	3.192	6.013	6.337	6.721	7.242	2.330	-1.592	-2.158	-1.688	-12.550	-12.740
		(0.22)	(0.37)	(0.71)	(0.75)	(1.13)	(1.22)	(0.26)	(-0.18)	(-0.38)	(-0.30)	(-1.62)*	(-1.64)*
NEG	+	47.362	43.156	8.067	6.971	85.067	83.320	-30.974	-28.499	126.330	124.756	129.183	129.819
		(2.53)***	(2.37)***	(0.46)	(0.39)	(6.81)***	(6.71)***	(-1.63)*	(-1.50)	(10.53)***	(10.45)***	(7.94)***	(7.95)***
CAP_INT	+	15.446	14.016	30.849	30.621	-4.556	-5.149	-6.139	-5.298	-3.340	-3.875	2.361	2.577
		(1.85)**	(1.72)**	(3.80)***	(3.76)***	(-0.82)	(-0.93)	(-0.72)	(-0.63)	(-0.62)	(-0.73)	(0.33)	(0.35)
Adjusted R-squared		0.055	0.103	0.146	0.145	0.577	0.584	0.021	0.034	0.610	0.616	0.284	0.281
F-statistics		2.90	4.25	6.58	5.73	45.83	40.55	1.69	1.99	52.42	46.10	14.01	12.01
Observations		198	198	198	198	198	198	198	198	198	198	198	198

***,**,* significance at the 1, 5 and 10 percent levels, respectively, using a two-tailed (one-tailed) test if there is a non-directional (directional) prediction. TACC is the difference between operating profit after tax before extraordinary items (scaled by lagged total assets) and cash flow from operations (scaled by lagged total assets), estimated in year t; MJONES is the absolute discretionary accruals from a firm-specific time-series regressions of the Modified Jones model, estimated from 1991 to 2005; DD is the standard deviation of the residuals from a regression on current total accruals and lagged operating cash flow, current operating cash flow and lead operating cash flow, estimated from 1991 to 2005; PERSIST is the slope coefficient of firm

specific time-series regressions of current earnings on lagged earnings, estimated from 1991 to 2005; PREDICT is the standard deviation of the residuals of firm specific regression of current earnings on lagged earnings, estimated from 1991 to 2005; SMOOTH is the ratio of standard deviation of earnings to the standard deviation of cash flow from operations, estimated from 1991 to 2005; ERRORS is the sum of the absolute amount of actual IFRS amount in 2006 minus the estimated IFRS amount in 2005; $\sum \left| \dfrac{IFRS_{2006} - IFRS_{2005}}{TA} \right|$; TA is the log of total assets in the prior year; σ(CFO) is the standard deviation of the firm's ten-year cash flow from operations scaled by lagged total assets, from 1991 to 2005; σ(SALES) is the Standard deviation of the firm's ten-year sales revenue scaled by lagged total assets, from 1991 to 2005; OPERCYCLE is the log of the sum of the firm's days accounts receivable and days inventory calculated from 1991 to 2005; NEG is the ratio of the number of years of losses relative to the total number of years of data from 1991 to 2005; and CAP_INT is the ratio of net book value of PPE to total assets.

Consistent with the arguments of this chapter, a positive coefficient on ERRORS is expected for TACC, MJONES, DD, PREDICT and SMOOTH, while a negative coefficient is expected on PERSIST.

The regression includes as dependent variable one of the six earnings quality metric (TACC, MJONES, DD, PERSIST, PREDICT and SMOOTH) and includes as independent variables implementation errors (ERRORS). Also included as independent variables are TA, σ(CFO), σ(SALES), OPERCYCLE, NEG and CAP_INT), to control for firm characteristics that have been found to be associated with TACC, MJONES, DD, PERSIST, PREDICT and SMOOTH

The dependent variable in the first column is the difference between net operating profit before extraordinary items and operating cash flows (TACC). The coefficient ERRORS is positive and significant (t=3.37). This result indicates that total accruals as a broad measure of earnings quality capture errors in the accounting implementation process. In terms of firm fundamentals the propensity to report losses and capital intensity are both positive and significant (t=2.37 and t=1.72, respectively). This is consistent with the prediction of this chapter. The incremental adjusted R-squared for including ERRORS is 5%, which represents 46.6% of the total explanatory power of the model (from adjusted R-squared of 0.055 to adjusted R-squared of 0.103).

The dependent variable in the second column is the absolute "abnormal" accruals from a firm specific time-series regression of the modified Jones model estimated from 1991 to 2005 (MJONES). The regression results demonstrate that "abnormal" accruals as calculated from a time-series modified Jones model is not associated with implementation errors (ERRORS). MJONES is mainly explained by fundamental factors like size (TA) and capital intensity (CAP_INT) (t=-3.56 and t=3.76, respectively). In terms of the explanatory power, results show that the firm fundamental factors alone explain about 14.6% of the variation in MJONES.

The dependent variable in the third column is the standard deviation of the residuals from a regression on current total accruals on lagged operating cash flow, current operating cash flow and lead operating cash flow estimated from 1991 to 2005 (DD). There is a positive relation between accruals quality and implementation errors. The coefficient on ERRORS is positive and significant (t=2.06). This suggests that the accruals quality model as suggested by Dechow and Dichev is able to identify errors made during the implementation of accounting standards. Furthermore, TA is negative and significant while, $\sigma(CFO)$, $\sigma(SALES)$ and NEG are positive and significant (t=-4.58, t=3.54, t=2.67 and t=6.71, respectively). These findings are consistent with the chapter's prediction and the findings of Dechow and Dichev (2002) and Francis et al. (2004). However, the coefficients on the operating cycle (OPERCYCLE) and capital intensity (CAP_INT) are not statistically significant. Together implementation errors and firm fundamentals explain about 58.4% of the variation in accruals quality as suggested by Dechow and Dichev (2002) (DD). The incremental R-squared of including ERRORS in this model is however low (from adjusted R-squared of 0.577 to adjusted R-squared of 0.584).

The dependent variable in the fourth column is the coefficient of firm specific time-series regressions of current earnings on lagged earnings (PERSIST). The regression results suggest that earnings persistence is partly explained by implementation errors. The coefficient on implementation errors (ERRORS) is negative and significant suggesting that firms reporting greater implementation errors have less persistent earnings (t=-1.91). A similar finding is reported by Doyle, Ge and McVay (2007). Specifically they document that firms with internal control weaknesses (which would allow more implementation errors to occur) have lower earnings persistence compared to a set of control firms that do not report internal control weaknesses. Moreover, Dechow and Dichev (2002) report a positive association

between accruals quality and earnings persistence. The only firm fundamental variable that is associated with PERSIST is variability of sales (t=-1.65). The coefficient is negative and significant. This finding is consistent with the chapter's prediction as well as the finding previously documented in the literature (e.g. Dechow et al. 2010; Doyle, Ge and McVay 2007). Results also suggest that implementation errors and firm fundamentals only explain 3.4% of the variation in PERSIST. In comparison, Francis et al. (2004) report an adjusted R-squared of 15% on a regression of earnings persistence on firm fundamentals alone. Meanwhile the incremental R-squared for including implementation errors is 1.3% suggesting that implementation errors explain a greater variation in earnings persistence as opposed to firm fundamentals.

The dependent variable in the fifth column is the standard deviation of the residuals of firm specific regressions of current earnings on lagged earnings from 1991 to 2005 (PREDICT). The coefficient on implementation errors (ERRORS) is positive and significant (t=1.68). This suggests firms reporting greater implementation errors have less predictable earnings. Consistent with prior studies the coefficient on size (TA) is negative and significant (t=-2.59) Variability of cash flow from operations (σ(CFO)) and variability and variability of sales are both positively associated with PREDICT ((t=2.41 and t=1.68, respectively). This is consistent with results from prior studies (e.g. Francis et al. 2004). There is also a positive association between the propensity to report losses and earnings persistence (t=10.45). Turning to the explanatory power of the test, results suggest that both implementation errors and firm fundamentals explain 61.6% of earnings predictability. However, the incremental R-squared for including implementation errors is low (0.6%).

The dependent variable in the sixth column is the ratio of the standard deviation of earnings to the standard deviation of cash flow from operations (SMOOTH). The chapter fails to find an association between implementation errors (ERRORS) and earnings smoothness (SMOOTH). Turning to the explanatory power of the test, results suggest that firm fundamentals explain about 28.4% of earnings smoothness. The explanatory power of the test is consistent with the literature (e.g. Francis et al. (2004) report adjusted R-squared of 33%).

In summary the results suggest that some of the variation observed in TACC, DD, PERSIST and PREDICT are attributable to implementation errors. However, the extent to which each of these metrics is affected by implementation errors varies significantly. The variations in DD and PREDICT are predominantly driven by firm fundamentals (adjusted R-squared of 57.7% and 61%, respectively) and very modestly explained by implementation errors (adjusted R-squared of about 0.7% for both). The fact that this chapter finds an association between TACC and implementations and no association between more "sophisticated" models of "discretionary" accruals (MJONES) and implementation errors, suggest that perhaps estimating the time-series MJONES adds more error in the "abnormal" portion of accruals. Similar inferences have been made by Dechow et al. (2010) and Bayley and Taylor (2007).

3.5   Additional tests

Table 3.5 reports the results on multivariate tests on the association between other measures of earnings quality, firm fundamentals and implementation errors.

Table 3.5   Additional tests on the Jones model, the modified Jones adjusted for lagged total accruals and performance and the Dechow and Dichev (2002) model as modified by McNichols (2002).

Variables	Pred. Sign	JONES Coefficient (t-stats)	JONES Coefficient (t-stats)	AdjMJONES Coefficient (t-stats)	AdjMJONES Coefficient (t-stats)	McDD Coefficient (t-stats)	McDD Coefficient (t-stats)
Constant		249.822	244.685	228.381	218.233	78.708	73.189
		(4.01)***	(3.91)***	(3.74)***	(3.58)***	(1.31)*	(1.21)
ERRORS	+/-		0.0612		0.1209		0.0643
			(0.93)		(1.89)**		(1.01)
Firm fundamentals:							
TA	-	-22.053	-22.202	-21.553	-21.849	0.942	0.808
		(-3.35)***	(-3.37)***	(-3.34)***	(-3.41)***	(0.15)	(0.13)
σ(CFO)	+	13.747	14.911	7.434	9.733	32.531	33.672
		(0.96)	(1.04)	(0.53)	(0.70)	(2.37)***	(2.44)**
σ(SALES)	+	1.714	1.629	1.260	1.092	10.228	10.157
		(0.42)	(0.40)	(0.32)	(0.27)	(2.60)***	(2.58)**
OPERCYCLE	+	6.484	6.830	14.775	15.460	-16.435	-16.085
		(0.78)	(0.82)	(1.80)**	(1.90)**	(-2.03)**	(-1.99)**
NEG	+	20.004	18.795	31.888	29.500	43.508	42.333
		(1.14)	(1.07)	(1.85)**	(1.72)**	(2.57)***	(2.49)**
CAP_INT	+	31.817	31.565	31.413	30.916	36.001	35.601
		(3.95)***	(3.91)***	(3.98)***	(3.94)***	(4.76)***	(4.70)***
Adjusted R-squared		0.161	0.160	0.194	0.205	0.223	0.223
F-statistics		7.26	6.34	8.86	8.20	10.40	9.06
Observations		198	198	198	198	198	198

***,**,* significance at the 1, 5 and 10 percent levels, respectively, using a two-tailed (one-tailed) test if there is a non-directional (directional) prediction. JONES is the absolute discretionary accruals from firm specific time-series regressions of the Jones, estimated from 1991 to 2005; AdjMJONES is the absolute discretionary accruals from firm specific time-series regressions of the Modified Jones adjusted for growth in sales, estimated from 1991 to 2005; McDD is the standard deviation of the residuals from a regression on current total accruals and lagged operating cash flow, current operating cash flow, lead operating cash flow, change in revenue and gross PPE, from 1991 to 2005; ERRORS is the sum of the absolute amount of actual IFRS amount in 2006 minus the estimated IFRS amount in 2005; $\sum \left| \dfrac{IFRS_{2006} - IFRS_{2005}}{TA} \right|$; TA is the log of total assets in the prior year; σ(CFO) is the standard deviation of the firm's ten-year cash flow from operations scaled by lagged total assets, from 1991 to 2005; σ(SALES) is the Standard deviation of the firm's ten-year sales revenue scaled by lagged total assets, from 1991 to 2005; OPERCYCLE is the log of the sum of the firm's days accounts receivable and days inventory calculated from 1991 to 2005; NEG is the ratio of the number of years of losses relative to the total number of years of data from 1991 to 2005; and CAP_INT is the ratio of net book value of PPE to total assets.

Prior studies have also used different versions of the earnings quality metrics to those adopted in the main analysis of this chapter. As sensitivity this chapter also considers the absolute discretionary accruals from firm-specific time-series regressions of the Jones model and the modified Jones model adjusted for performance (growth in sales) and the residual from the Dechow and Dichev model as modified by McNichols (2002). The results suggest no association between discretionary accruals as estimated from the Jones model and ERRORS. Also there is no association between the residuals estimated by the modified version of the Dechow and Dichev model (2002) and ERRORS. This may suggest that the original version of the Dechow and Dichev model (2002) better captures implementation errors while including additional variables to the original model may add noise in the estimated residuals. Finally, Table 3.6 documents a positive association between "abnormal" accruals estimated from the modified Jones model adjusted for performance and ERRORS. The incremental R-squared on including the variable implementation errors is however very low (incremental adjusted R-squared is 0.1%).

Table 3.6 reports the results of multivariate tests on the association between implementation errors and firm fundamentals.

Table 3.6   Implementation errors and hypothesised determinants of earnings quality.

This table provides evidence from the relation between implementation errors on hypothesised determinants of accounting errors (Francis et al. 2004 and Dechow and Dichev 2002).

Variables	Pred.Sign	DepVar= ERRORS
		Coefficient (t-stats)
Intercept		85.883
		(1.25)
Innate factors		
TA	-	2.093
		(0.29)
σ(CFO)	+	-17.750
		(-1.13)
σ(SALES)	+	1.117
		(0.25)
OPERCYCLE	+	-5.453
		(-0.59)
NEG	+	18.281
		(0.95)
CAP_INT	+	6.215
		(0.72)
Adjusted R-squared		0.000
F-statistics		0.51
Observations		198

***,**,* significance at the 1, 5 and 10 percent levels, respectively, using a two-tailed (one-tailed) test if there is a non-directional (directional) prediction. ERRORS is the sum of the absolute amount of actual IFRS amount in 2006 minus the estimated IFRS amount in 2005; $\sum \left| \dfrac{IFRS_{2006} - IFRS_{2005}}{TA} \right|$; TA is the log of total assets in the prior year; σ(CFO) is the standard deviation of the firm's ten-year cash flow from operations scaled by lagged total assets, from 1991 to 2005; σ(SALES) is the Standard deviation of the firm's ten-year sales revenue scaled by lagged total assets, from 1991 to 2005; OPERCYCLE is the log of the sum of the firm's days accounts receivable and days inventory calculated from 1991 to 2005; NEG is the ratio of the number of years of losses relative to the total number of years of data from 1991 to 2005; and CAP_INT is the ratio of net book value of PPE to total assets. The dependent variable is the absolute ranked value of ERRORS.

This sensitivity analysis consists of examining the extent to which implementation errors vary with firm fundamental characteristics. Given the contention in this chapter that there are differences between firm fundamentals and implementation errors, firm fundamentals variables are not expected to be statistically associated with implementation errors. Consistent with expectation Table 3.6 reports no significant associations between

implementation errors and firm fundamentals. This suggests that the measure for implementation errors and firm fundamentals are different constructs. This finding highlights the importance of controlling for the implementation errors when modelling earnings quality, as fundamental characteristics are insufficient in explaining earnings quality.

In the main analysis of this chapter, the absolute value of implementation errors is used. As sensitivity this chapter re-runs the main multivariate test on positive TACC, positive MJONES and positive PERSIST (Appendix 10) and negative TACC, negative MJONES and negative PERSIST (Appendix 11). The coefficients on ERRORS for positive TACC, positive MJONES and positive PERSIST, are consistent with the main findings as documented in Table 3.4. Moreover, the coefficients on ERRORS for negative TACC and for negative MJONES are consistent with the main findings as documented in Table 3.4. However, the coefficient on ERRORS is not significant for negative PERSIST.

Finally this chapter replaces ERRORS with ERRORSIV, which is an indicator variable set to equal to one if ERRORS is greater than the median value of ERRORS (0.009), zero otherwise. The coefficients on ERRORSIV and firm fundamentals, reported in Appendix 12 remain consistent with the main findings of this chapter, as documented in Table 3.4.

3.6 Implications of the results.

The findings of this thesis have several implications for researchers. This chapter documents that the extent to which some earnings quality metrics are affected by firm fundamental characteristics and implementation errors vary. This suggests that researchers should be careful in their choice of earnings quality metric/s. For example, if implementation errors are

important in a research question and the researcher decides to adopt the modified Jones model as a proxy for implementation errors, then the wrong inference would be made as the modified Jones model mainly capture fundamental characteristics of the firms as opposed to implementation errors in reported earnings.

In addition, the findings suggest that total accruals is a "better" proxy for implementation errors compared to more "sophisticated" models that aim to separate accruals into the "normal" and the "abnormal" components. This finding coupled with the findings of Dechow et al. (2010) who find that total accruals has a stronger ability to predict accounting restatements compared to "abnormal" accruals estimated from the modified Jones model and the modified Jones adjusted for performance, suggest that future research might want to move away from further improvement to this model. Appendix 13 documents a summary of results for estimating the Jones model, the modified Jones model and the modified Jones model adjusted for lagged total accruals and firm performance. This includes the statistics for the coefficients, estimates of normal and "abnormal accruals" as well as the explanatory power of the models. Appendix 13 highlights that the explanatory power of the models based on a sample of 198 Australian firms, decreases as more variables (that are expected to capture firms' fundamentals) are included in the original version of the Jones model. Therefore it is suggested that more time be spent in understanding what the earnings quality metrics capture, so the right conclusion can be made about the research outcome.

3.7   Conclusion

This chapter examines the extent to which commonly used earnings quality metrics are affected by implementations errors and firm fundamental characteristics. Consistent with the contention of Dechow, Ge and Schrand (2010), this chapter shows that earnings quality metrics are not all equally affected by implementation errors just as they are not all equally affected by firm fundamentals. First, total accruals are almost equally affected by implementation errors and firm fundamentals. Also, the results suggest that "abnormal" accruals estimated from the modified Jones and earning smoothing are not at all affected by implementation errors. Instead, variations from "abnormal" accruals from the modified Jones model and earnings smoothing are mainly attributable to firm fundamental characteristics. Moreover, accruals quality estimated from the Dechow and Dichev (2002) model and earnings predictability are modestly affected by implementation errors. The explanatory power of including implementation errors in an OLS regression of earnings predictability and accruals quality is only 0.6%. The results suggest that variations in these models are to a very large extent explained by firm fundamentals.

These findings contribute to our understanding regarding the factors that are most likely to affect commonly used earnings quality metrics as well as the extent to which implementation errors affect these commonly used metrics. As such this thesis provides guidance to accounting researchers in their choice of earnings quality metrics and in making conclusion regarding their findings based on these earnings quality metrics. The findings of this chapter also highlight that cross-sectional differences in the quality of reported earnings are also attributable to the quality of the implementers. However, existing studies rarely control for the quality of implementers in models of earnings quality.

The results have several limitations. First, because IFRS restatement is a one year event, the sample size is limited as firms are required to have at least 10 years of data prior to the transition year. The earnings quality metrics may be affected by the sample size. However, firms are ranked based on these metrics in an attempt to eliminate any extreme variations in the metrics. Second, the implementation of a new set of accounting standard is not an ongoing process. However, implementation of new accounting standards and revision to existing accounting standards happen on an ongoing basis. For example after the transition to IFRS in Australia in 2005, there were major changes to AASB 127 "Consolidated and separate financial statements." As such these results can extend beyond the one off implementation of the IFRS.

CHAPTER 4

Conclusion and implications

4.1   Conclusion

This thesis exploits a unique Australian setting, where implementation errors in reported earnings are directly observable to address two research questions. The first research question examines the association between the CFO's accounting talent, the CFO's compensation levels and the CFO's turnover, where the CFO's accounting talent is measured in terms of implementation errors in reported earnings. The second part of the thesis evaluates the extent to which some commonly used earnings quality metrics capture implementation errors in reported earnings.

Drawing from the analytical framework and agency theory, Chapter 2 develops three hypotheses. The first hypothesis examines whether there is a positive association between the CFO's accounting talent and his/her compensation levels during the transition to IFRS. The second hypothesis examines whether there is a positive association between the CFO's accounting talent and his/her cash bonus during the adoption of IFRS. The third hypothesis examines whether there is an inverse association between the CFO's accounting talent and his/her turnover in the adoption year. Based on a sample of 280 Australian firms during the transition year, the thesis provides evidence on the three hypotheses. The results are generally consistent in the predicted direction.

Chapter 3 validates commonly used earnings quality metrics, in terms of their ability to capture implementation errors in reported earnings. Given that implementation errors in reported earnings decrease earnings quality and given that these metrics model the extent to

which earnings are measured with errors, Chapter 3 hypothesises a positive association between commonly used earnings quality metrics and implementation errors in reported earnings. Based on a sample of 198 Australian firms during the transition year, the thesis provides evidence that not all earnings quality metrics examined, are affected by implementation errors.

The findings of this thesis have several implications for practitioners, regulators, accounting researchers, accounting standard setters and academics. First, the findings of Chapter 2 have implications for regulators. The findings of Chapter 2 confirm existing theories in the analytical literature, which suggest the observed level of compensation is a reflection of the executive's talent (Mayer 1960; Rosen 1982). This finding is crucial for regulators who are considering interfering in the process of setting executive compensation. The findings suggest that the board of directors and pressures from the executive labour market ensure that executives are paid based on how well they perform. This finding is consistent with existing empirical findings (e,g. Hoitash, Hoitash and Johnstone, 2009 and Collins, Reitenga and Sanchez, 2008).

Second, the findings have implications for researchers. The extensive literature on earnings quality (earnings management, accruals quality, restatement, fraud and internal control weaknesses) over the last twenty years indicates a long-standing interest in understanding implementation errors. However, the majority of empirical findings relate to intentional errors that distort reported earnings. An exception is Hennes et al. (2008) who argue and find that different inferences can be made about the consequences of restatement if the restatement sample can be re-classified into intentional errors and implementation errors.

Furthermore, the results in Chapter 3 highlight that firm characteristics alone are insufficient in explaining errors in reported earnings. Researchers have previously assumed homogeneity across implementers of accounting standards. The thesis strongly advises researchers to control for the quality of the implementers (CFOs and external auditors) in their research design because the cognitive ability of the implementers of accounting standards (CFOs) has a significant impact on reported earnings. This is consistent with the findings of Ge, Matsumoto and Zhang (2008) who document a link between CFO-specific factors and firms earnings related and disclosures related practices.

Third, the findings have implications for accounting standards setters and those who enforce and regulate the accounting profession (e.g. ASIC). The thesis points to the types of accounting standards that are more problematic and more likely to lead to implementation errors in reported earnings. Finally the findings have implications for accounting educators who devote considerable resources in training implementers of accounting standards.

4.2   Limitations

The findings of this thesis however, have their limitations. First, because implementation errors can only be observed in the transition year, observations are drawn from a single year (280 firms). The data requirements for the calculation of some of the commonly used earnings quality metrics (at least ten years of prior year data) in Chapter 3 further reduces the sample size to 198 firms. Second, the transition to IFRS is a one-off event that led to the implementation of a whole new set of accounting standards and hence it could be argued that the results of this thesis cannot be generalised to other financial years. Whilst this is the case, implementation of new accounting standards has been an ongoing process (e.g. the changes to AASB 3 "Business Combinations" and AASB 127 "Consolidated and Separate Financial

Statements" in 2009). Third, the findings of Chapter 2 only have implications for CFOs and hence cannot be generalised to CEOs and other executives.

4.3   Topics for future research

4.3.1 Executive talent and rewards

To support theories from the analytical framework, more empirical work needs to be undertaken on the relation between talent, compensation and turnover. This thesis has only provided evidence on the compensation and turnover of the CFO. Future research could focus on developing talent proxies for the other top 5 executives. While attempts have been made to capture CEO talent (beyond firm performance) (e.g. Demerjian, Lev and McVay 2009), no attempt has been made to assess or evaluate the quality of other executives in the firm. Yet it is the contention of this thesis that it is the quality of the executives at the top of the organisation that makes the company thrive. To date researchers have used loose proxies for talent, for example, share prices and media mentions. It is advised that, when developing a proxy for talent, one should clearly indentify the task the executive is responsible for and then measure how well this executive completed his/her task compared to his/her peers.

Another research avenue is to investigate whether firms managed by a group of superstars (talented top 5 executives) perform differently in terms of abnormal returns, audit fees, compensation premiums and job retention. Furthermore, future research could investigate the type of compensation structures firms offer to talented executives to attract, retain and motivate these individuals and why. While the findings of this thesis provide evidence of the CFO's turnover and the CFO's accounting talent, it does not investigate why the CFOs leave the firms; retirement, better job prospects, underperformance, etc. To provide further evidence on the importance of the CFO's accounting talent in the financial reporting process,

future research could identify CFOs that move from firm to firm and examine the firm's financial reporting quality/disclosure quality/earnings forecast accuracy when the these CFOs are appointed in a new firm.

4.3.2 Different settings

The findings of this thesis provide several future research avenues. First, it is expected that the US will soon be transitioning to IFRS and it is expected that this transition will be similar to the transition to IFRS in Australia (i.e. the "big bang" approach). Given that the US setting benefits from bigger sample size, the findings of this thesis could be replicated in the US for large sample evidence. Another avenue would be to identify a setting whereby implementation errors are observable across more than one financial year (IFRS transition year). For example Hennes, Leone and Miller (2008) carefully separate implementation errors from accounting irregularities in a sample of restatement firms. This alternative proxy for implementation errors could be used to further validate the findings of this thesis.

Another avenue for future research is to identify whether financial ratios if any, are related to implementation errors. If researchers find a strong association between financial ratios and implementation errors, the former can be used as an alternative proxy for implementation errors and can be used to extend the findings to more than one financial year. For instance, Bayley and Taylor (2007) provide a range of financial ratios that could be used to detect accounting restatements. They argue that these financial ratios are more strongly associated with accounting restatements than the Jones model.

APPENDICES

Appendix 1:   Calculating the CFO's accounting talent/ implementation errors.

The Qantas Ltd's IFRS disclosure is used to illustrate the calculation of the CFO's accounting

TALENT. Based on the Qantas reconciliation table below, TALENT is 0.0023

$$\frac{|-22.4m|+|0.4m|+|-5.7m|+|-7.3m|+|0.1m|+|-4.6m|}{17854m} \times (-1).$$

Qantas Limited

		Transition year (amounts in thousands)	Adoption year (amounts in thousands)	Adoption minus Transition (in absolute amount in thousands)
Net profit GAAP		764.4	764.4	
Revenue	AASB 118	-99.6	-99.6	0
Employee benefits	AASB 119	40	17.6	22.4
Leases	AASB 117	-11.8	-11.4	0.4
Property, Plant and Equipment	AASB 116	-0.3	-6	5.7
Income tax	AASB 112	1.9	-5.4	7.3
Financial instruments	AASB 139	0	0.1	0.1
Other		34.4	29.8	4.6
Net profit IFRS		729	689.5	40.5
Average total assets				17854
CFO's accounting TALENT/implementation errors				**-0.0023**

Appendix 2:   Examples of differences in the application of GAAP and IFRS

Revenues [AASB 1004 to AASB 118]

The major change to the Revenue standards relates the stricter revenue recognition criteria under A-IFRS. While AASB 1004 contains a broader definition of revenue encompassing all the entity's inflows (even those not attributable to ordinary activities), AASB 118 defines revenue as the gross inflow from ordinary activities only.

Share-based payments [None to AASB 2]

Prior to the issue of AASB 2, there was no requirement to identify the expenses associated with share-based payments, or to measure and recognise such transaction in the financial statements. As share based plans are designed as a form of additional compensation, AASB 2 requires that the latter be expensed. AASB 2 is straightforward and requires the number of options granted, the fair value of the option at grant date, the vesting period and the number of employees (also employee departure) to calculate the remuneration expense incurred.

Impairment [AASB 1010 to AASB 136]

Prior to AASB 136 (all assets except inventory), AASB 1010 applied to non-current assets. AASB 1010 seems to be less detailed and restrictive (ICAA 2005). For instance, AASB 1010 does not address several issues, such as how to deal with any goodwill in testing for impairment, how to deal with reversal of impairment loss, the order of write downs. Despite being more restrictive and detailed in some areas, AASB 136 introduces a lot of judgement and subjectivity in other areas. AASB 136 introduces the concept of cash-generating units, whereas AASB 1010 uses a "class of non-current assets." First, AASB 136 requires an impairment test when there is "sufficient evidence" and this is left to the discretion of the managers, who can use internal evidence based on their own assessment on the benefits

provided by the assets. Second, the estimation of the recoverable amounts[33] requires the estimation of "value in use", which in turn requires estimates on future cash inflows and a discount rate. Third, because the estimation of "value in use" requires estimate relates to determining expected cash inflows, identification of cash generating units is required as some assets do not individually generate cash inflows.

Financial instruments [AASB 1033 to AASB 132 and 139]

AASB 132 replaces AASB 1033. The differences[34] between AASB 132 and AASB 1033 are minor and do not affect the Income Statement. However, AASB 139 requirements brought major changes as there were no standards that dealt with the recognition and measurement of financial instruments prior to IFRS. AASB 139 requires the recognition of financial assets and financial liabilities in the balance sheet at fair values. Financial assets undergo impairment testing. The increases or decrease in the value of financial assets and liabilities are taken to the profit and loss or to equity depending on which class they are recognised in. Given that there were no standards to govern the recognition of financial instruments firms had a lot of discretion in deciding how to disclose these financial instruments. The new AASB 139 guides more guidance to firms. However, as AASB 139 has proven problematic to implement, Australian firms could elect not to restate comparative information for financial instruments within the scope of AASB 132 and AASB 139.

Intangible assets [AASB 1010, 1011 to AASB 138]

The application of AASB 138 "Intangible Assets", is more detailed and restrictive. First, AASB 138 prohibits the recognition of internally generated brands, mastheads, publishing titles, etc. It also prohibits revaluations of intangible assets to fair value with reference to an

---

[33] AASB 136 defines recoverable amounts as the higher of the asset's (or cash generating unit) fair value less costs to sell and its value in use., whereas AASB 1010 defines recoverable amount in more generic terms
[34] For example, tougher rules for equity recognition and disclosure

active market. Furthermore, AASB 138 requires all expenditure on research to be expensed, whereas there was more discretion under AASB 1011 that allowed certain types of research expenditure to be recognised. In addition AASB 138 requires the amortisation method used to reflect the pattern in which the asset's economic benefits (which lead to the reversal of goodwill amortisation for a number of firms) are consumed and where the pattern cannot be reliably measured; straight-line depreciation method should be used. On the other hand, AASB 1021 assumes that this pattern can always be reliably measured and several depreciation methods can be used.

Income tax (AASB 1020 to AASB 112)

Accounting for income taxes is straight forward both under AASB 1020 and AASB 112. While AASB 1020 adopted the income statement approach, AASB 112 focuses on temporary differences rather than timing differences, using the balance sheet (as assets and liabilities reflect future inflows and outflows to the entity) and differences between carrying amounts and the tax bases of assets and liabilities to derive temporary differences. AASB 112 adopts the philosophy that the tax consequences of transactions that occur during a period should be recognised as income or expense for that period, regardless of when those tax effects will occur. This requires the calculations of current tax liability and movements in Deferred tax assets and Deferred tax liability. As both standards are highly technical in their application, the thesis contends that less judgement was required in the application of this standard.

Employee benefits (AASB 1028 to AASB 119)

The major change in the employee benefits standard that affected net profit relates to the recognition of actuarial gains and losses. AASB 119 requires the full expensing of actuarial gains and losses in the accounting period they occurred, in the Income Statement. However, this was not done under AASB 1028.

Appendix 3: CEO's accounting talent.

Table A3.1   **CEO's accounting talent and CEO's compensation levels in the transition year.**

Evidence on the relation between the CEO's accounting talent and the CEO's compensation is reported as a regression of, the CEO's compensation levels on the CEO's ability to accurately estimate accruals during the transition to the IFRS, corporate governance mechanisms and economic determinants. The table below reports from the following OLS regression:

$$CEOCOMP_{it} = \beta + \beta_1 TALENT_{it} + \beta_2 TA_{it} + \beta_3 ACC_{it} + \beta_4 ROA_{it-1} + \beta_5 P\_B_{it-1} + \beta_6 BSIZE_{it}$$
$$+ \beta_7 EXDIR_{it} + \beta_8 CPA_{it} + \beta_9 TENURE_t + \sum \beta_i IND_{it} + \varepsilon_i$$

		Model (1) DepVar = Compensation levels as measured as:			
		CEOTOTAL	CEOBASE	CEOCASH	$CEOBONUS_t$
Variables	pred.sign	Coefficient (t-stats)	Coefficient (t-stats)	Coefficient (t-stats)	Coefficient (t-stats)
Intercept		4.635 (23.61)***	4.468 (31.47)***	4.319 (9.95)***	0.671 (0.46)
TALENT	(+)	0.109 (0.43)	0.015 (0.08)	-0.364 (0.65)	2.476 (1.30)
TA	(+)	0.188 (11.41)***	0.153 (12.22)***	0.235 (6.44)***	0.695 (5.62)***
ACC	(+)	-0.004 (-0.39)	-0.009 (1.17)	-0.016 (-0.70)	0.021 (0.27)
ROA	(+)	-0.234 (-1.72)*	-0.141 (-1.36)*	-0.485 (-1.61)	0.140 (0.14)
P_B	(+)	0.021 (2.66)***	0.013 (2.09)**	-0.034 (1.88)**	0.103 (1.70)**
BSIZE	(+)	-0.010 (-0.97)	-0.075 (-0.92)	-0.010 (-0.44)	-0.112 (-1.40)*
EXDIR	(+)	-0.364 (-2.50)***	-0.299 (-2.71)***	-0.618 (-1.92)**	-2.802 (-2.57)***
TENURE	(+)	0.005 (1.61)*	0.004 (2.09)**	0.001 (0.10)	-0.025 (-1.08)
Industry controls		Yes	Yes	Yes	Yes
Adjusted R-squared		0.446	0.498	0.450	0.211
F-statistic		15.01	18.28	15.66	5.66
Observations		280	280	280	280

***,**,* significance at the 1, 5 and 10 percent levels, respectively, using a two-tailed (one-tailed) test if there is a non-directional (directional) prediction. CEOTOTAL is the log of the CEO's total annual compensation (the sum of base salary, cash bonus, superannuation, pecuniary benefits, long-term compensation, retirement allowances and others); CEOBASE is the log of the CEO's fixed base salary; CEOCASH is the log of the CEO's cash compensation (the sum of base salary, cash bonus and other short-term incentives); $CEOBONUS_t$ is the log of the CEO's bonus (1+ sum of cash bonus and other short-term cash incentives awarded in the transition year); TALENT is $\sum \left| \dfrac{IFRS_{2006} - IFRS_{2005}}{TA} \right| \times (-1)$; TA is the log of the average total assets; ACC is the net operating profit after tax minus the cash flow from operations; ROA is the return on assets in the prior year; P_B is the ratio of price to book in the prior year; BSIZE is the number of directors on the board; EXDIR is the percentage of executive directors on the board; BLOCK is an indicator variable set to equal to one if block holding is greater than 5%, zero otherwise; and TENURE is the number of years the CEO has been CEO in the firm until the end of the transition year.

The compensation variables; TOTAL, BASE, CASH and $BONUS_t$ are logged and winsorized at the 1st and 99th percentiles to avoid problems related to outliers.

This table tests whether the CFO's accounting talent is in fact attributable to the CEO as the CEO may exert his/her power to influence the CFO's financial reporting decisions. If the CEO financial reporting outcomes are in fact attributable to the CEO's talent, then a positive association is expected between the CEO's accounting talent and the CEO's compensation levels in the transition year. The coefficient on TALENT is not significant across the different measures of CEO compensation, CEOTOTAL, CEOBASE, CEOCASH and $CEOBONUS_t$. This provides support for the argument that CFOs and not CEOs are held accountable for errors in financial reports.

Table A3.2   **CEO's accounting talent and the CEO's bonus compensation in the adoption year.**

Evidence on the relation between the CEO's accounting talent and the CEO's bonus compensation in the subsequent year is reported as a regression of, the CEO's bonus compensation in the adoption year, on the CEO's ability to accurately estimate accruals during the transition to the IFRS, corporate governance mechanisms and economic determinants. The table below reports from the following OLS regression:

$$CEOBONUS_{it+1} = \beta + \beta_1 TALENT_{it} + \beta_2 TA_{it} + \beta_3 ACC_{it} + \beta_4 ROA_{it-1} + \beta_5 P\_B_{it-1} + \beta_6 BSIZE_{it}$$
$$+ \beta_7 EXDIR_{it} + \beta_8 CPA_{it} + \beta_9 TENURE_t + \sum \beta_i IND_{it} + \varepsilon_i$$

Variables	Pred.sign	Model (2) Dep Var = CEOBONUS$_{t+1}$
		Coefficient (t-stats)
Intercept		0.173 (0.12)
TALENT	(+)	1.162 (0.61)
TA	(+)	0.585 (4.73)***
ACC	(+)	0.053 (0.67)
ROA	(+)	-0.188 (-0.18)
P_B	(+)	0.112 (1.86)**
BSIZE	(+)	0.020 (0.24)
EXDIR	(+)	-1.760 (-1.61)*
TENURE	(+)	-0.043 (-1.84)*
Industry controls		Yes
Adjusted R-squared		0.133
F-statistic		3.68
Observations		280

***,**,* significance at the 1, 5 and 10 percent levels, respectively, using a two-tailed (one-tailed) test if there is a non-directional (directional) prediction. CEOBONUS$_{t+1}$ is the log of CEO's bonus (1+ sum of cash bonus and other short-term cash incentives awarded in the subsequent year); TALENT is $\sum \left| \dfrac{IFRS_{2006} - IFRS_{2005}}{TA} \right| \times (-1)$; TA is the log of the average total assets; ACC is the net operating profit after tax minus the cash flow from operations; ROA is the return on assets in the prior year; P_B is the ratio of price to book in the prior year; BSIZE is the number of directors on the board; EXDIR is the percentage of executive directors on the board; and TENURE is the number of years the CEO has been CEO in the firm.

This table tests whether the CFO's accounting talent is in fact attributable to the CEO as the CEO may exert his/her power to influence the CFO's financial reporting decisions. The coefficient on TALENT is not significant for BONUS$_{t+1}$. This suggests that CEO's may not be held accountable for implementation errors in reported earnings.

Table A3.3   CEO's accounting talent and the CEO's bonus compensation in the adoption year.

Evidence on the relation between the CEO's accounting talent and change in the CEO's bonus compensation in the adoption year is reported as a regression of the CEO's bonus change on the CEO's ability to accurately estimate accruals during the transition to the IFRS, corporate governance mechanisms and economic determinants. The table reports results from the following OLS regression:

$$CEOBONUS_{it+1} = \beta + \beta_1 TALENT_{it} + \beta_2 \Delta TA_{it} + \beta_3 ACCRUALS_{it} + \beta_4 \Delta ROA_{it} + \beta_5 \Delta P\_B_{it-1} + \beta_6 BSIZE_{it}$$
$$+ \beta_7 EXDIR_{it} + \beta_8 CPA_{it} + \beta_9 TENURE_t + \sum \beta_i IND_{it} + \varepsilon_i$$

Variables	Pred.sign	Model (2) Dep Var = change in the CFO's BONUS compensation	
		ΔCEOBONUS	ΔCEOBONUSIV (indicator variable)
		Coefficient (t-stats)	Coefficient (z-stats)
Intercept		-0.066	0.163
		(-0.28)	(0.59)
TALENT	(+)	0.309	0.037
		(0.79)	(0.08)
ΔTA	(+)	-0.042	-0.008
		(-1.04)	(-0.16)
ΔACC	(+)	0.005	0.015
		(0.34)	(0.88)
ΔROA	(+)	-0.032	-0.011
		(-1.65)*	(-0.48)
ΔP_B	(+)	-0.008	-0.017
		(-0.78)	(-1.41)*
BSIZE	(+)	0.010	0.015
		(0.83)	(1.01)
EXDIR	(+)	0.036	-0.079
		(0.20)	(-0.38)
TENURE	(+)	-0.004	-0.007
		(-1.01)	(-1.52)*
Industry controls		Yes	Yes
Adjusted R-squared		0.031	
Pseudo R-squared			0.034
F-statistics		1.54	0.56
Observations		280	280

***,**,* significance at the 1, 5 and 10 percent levels, respectively, using a two-tailed (one-tailed) test if there is a non-directional (directional) prediction. ΔCEOBONUS is change in BONUS from the transition year to the adoption year, divided by TOTAL; and ΔCEOBONUSIV is an indicator variable set to equal to one if there was an increase in BONUS from the transition year to the adoption year; TALENT is $\sum \left| \dfrac{IFRS_{2006} - IFRS_{2005}}{TA} \right| \times (-1)$; TA is change in the average total assets; ACC is change in the net operating profit after tax minus the cash flow from operations; ROA is change in the return on assets in the prior year; P_B is change in the ratio of price to book in the prior year; BSIZE is the number of directors on the board; EXDIR is the percentage of executive directors on the board; and TENURE is the number of years the CEO has been CEO in the firm until the end of the transition year.

An OLS regression is performed for column 1, using ΔCEOBONUS as left-hand-side variable. A logit regression is performed for column 2 using ΔCEOBONUSIV as left-hand-side variable. The results on change in bonus compensation may suggest that CEOs are not held accountable for implementation errors.

Appendix 4: Variation in firm performance specification.

Table A4.1   **CFO's accounting talent and the CFO's compensation levels in the transition year (ROE as a measure of firm performance).**

Evidence on the relation between the CFO's accounting talent and the CFO's compensation is reported as a regression of, the level of compensation on CFO's ability to accurately estimate accruals during the transition to the IFRS, economic determinants of the firm, corporate governance mechanisms and other CFO characteristics. The table reports results from the following quartile regression:

$$COMPENSATION_{it} = \beta + \beta_1 TALENT_{it} + \beta_2 TA_{it} + \beta_3 ACC_{it} + \beta_4 ROE_{it-1} + \beta_5 P\_B_{it-1} + \beta_6 BSIZE_{it}$$
$$+ \beta_7 EXDIR_{it} + \beta_8 CPA_{it} + \beta_9 TENURE_t + \sum \beta_i IND_{it} + \varepsilon_i$$

| | | Model (1) DepVar = Compensation levels as measured as: | | | |
| | | TOTAL | BASE | CASH | BONUS$_t$ |
Variables	pred.sign	Coefficient (t-stats)	Coefficient (t-stats)	Coefficient (t-stats)	Coefficient (t-stats)
Intercept		10.204 (31.36)***	4.460 (36.93)***	9.943 (30.11)***	-2.190 (-0.71)
TALENT	(+)	0.699 (1.74)**	0.318 (2.13)**	0.726 (1.78)**	1.130 (0.29)
TA	(+)	0.356 (13.50)***	0.127 (12.94)***	0.364 (13.60)***	1.581 (6.29)***
ACC	(+)	0.0335 (2.01)**	0.010 (1.69)**	0.024 (1.41)*	0.060 (0.38)
ROE	(+)	-0.002 (-0.02)	0.023 (0.48)	0.027 (0.20)	-0.512 (-0.41)
P_B	(+)	0.038 (2.98)***	0.009 (1.84)**	0.040 (3.03)***	0.332 (2.71)***
BSIZE	(+)	0.003 (0.18)	-0.000 (-0.14)	0.005 (0.30)	0.064 (0.40)
EXDIR	(+)	0.032 (0.14)	-0.010 (-0.11)	-0.032 (-0.14)	-3.913 (-1.79)**
CPA	(+)	-0.009 (-0.14)	0.031 (1.27)	0.036 (0.54)	-0.396 (-0.64)
TENURE	(+)	0.011 (1.30)*	0.002 (0.73)	0.012 (1.40)*	0.075 (0.96)
Industry controls		Yes	Yes	Yes	Yes
Adjusted R-squared		0.566	0.551	0.576	0.237
F-statistic		22.41	21.14	23.30	6.11
Observations		280	280	280	280

***,**,* significance at the 1, 5 and 10 percent levels, respectively, using a two-tailed (one-tailed) test if there is a non-directional (directional) prediction. TOTAL is the log of the CFO's total annual compensation (the sum of base salary, cash bonus, superannuation, pecuniary benefits, long-term compensation, retirement allowances and others); BASE is the log of the CFO's fixed base salary; CASH is the log of the CFO's cash compensation (the sum of base salary, cash bonus and other short-term incentives); BONUS$_t$ is the log of the CFO's bonus (1+ sum of cash bonus and other short-term cash incentives awarded in the transition year); TALENT is $\sum \left| \dfrac{IFRS_{2006} - IFRS_{2005}}{TA} \right| \times (-1)$; TA is the log of the average total assets; ACC is the net operating profit after tax minus the cash flow from operations; ROE is the return on equity in the prior year; P_B is the ratio of price to book in the prior year; BSIZE is the number of directors on the board; EXDIR is the percentage of executive directors on the board; CPA is an indicator variable, which is set equal to one if the firm's CFO is a certified public accountant or chartered account, zero otherwise; and TENURE is the number of years the CFO has been CFO in the firm until the end of the transition year.

The compensation variables; TOTAL, BASE, CASH and BONUS$_t$ are logged and winsorized at the 1st and 99th percentiles to avoid problems related to outliers.

This table uses an alternative proxy for firm performance. In this table ROA is replaced with ROE. The coefficient on ROE is not significant while the coefficient on the experimental variable TALENT remains significant in the predicted direction for TOTAL, BASE and CASH.

Table A4.2   CFO's accounting talent and the CFO's compensation levels in the transition year (average ROE as a measure of firm performance).

Evidence on the relation between the CFO's accounting talent and the CFO's compensation is reported as a regression of, the level of compensation on CFO's ability to accurately estimate accruals during the transition to the IFRS, economic determinants of the firm, corporate governance mechanisms and other CFO characteristics. The table reports results from the following OLS regression:

$$COMPENSATION_{it} = \beta + \beta_1 TALENT_{it} + \beta_2 TA_{it} + \beta_3 ACC_{it} + \beta_4 ROE3year_{it} + \beta_5 P\_B_{it-1} + \beta_6 BSIZE_{it}$$
$$+ \beta_7 EXDIR_{it} + \beta_8 CPA_{it} + \beta_9 TENURE_t + \sum \beta_i IND_{it} + \varepsilon_i$$

		Model (1) DepVar = Compensation levels as measured as:			
		TOTAL	BASE	CASH	BONUS$_t$
Variables	pred.sign	Coefficient (t-stats)	Coefficient (t-stats)	Coefficient (t-stats)	Coefficient (t-stats)
Intercept		10.212 (31.80)***	4.449 (37.28)***	9.913 (30.44)***	-1.893 (-0.62)
TALENT	(+)	0.716 (1.78)**	0.317 (2.12)**	0.725 (1.78)**	1.275 (0.33)
TA	(+)	0.356 (14.12)***	0.128 (13.68)***	0.366 (14.29)***	1.550 (6.45)***
ACC	(+)	0.033 (2.01)**	0.011 (1.71)**	0.366 (14.29)***	0.056 (0.35)
ROE3yrs	(+)	-0.027 (-0.62)	0.005 (0.32)	0.006 (0.13)	-0.315 (-0.76)
P_B	(+)	0.039 (3.01)***	0.009 (1.88)**	0.040 (3.05)***	0.330 (2.71)***
BSIZE	(+)	0.003 (0.20)	-0.001 (-0.21)	0.005 (0.28)	0.074 (0.46)
EXDIR	(+)	0.023 (0.10)	-0.001 (-0.01)	-0.022 (-0.10)	-4.164 (-1.93)**
CPA	(+)	-0.013 (-0.20)	0.032 (1.34)*	0.038 (0.57)	-0.465 (-0.75)
TENURE	(+)	0.010 (1.28)	0.002 (0.74)	0.012 (1.40)*	0.073 (0.94)
Industry controls		Yes	Yes	Yes	Yes
Adjusted R-squared		0.567	0.551	0.576	0.239
F-statistic		22.47	21.12	23.29	6.14
Observations		280	280	280	280

***,**,* significance at the 1, 5 and 10 percent levels, respectively, using a two-tailed (one-tailed) test if there is a non-directional (directional) prediction. A TOTAL is the log of the CFO's total annual compensation (the sum of base salary, cash bonus, superannuation, pecuniary benefits, long-term compensation, retirement allowances and others); BASE is the log of the CFO's fixed base salary; CASH is the log of the CFO's cash compensation (the sum of base salary, cash bonus and other short-term incentives); BONUS$_t$ is the log of the CFO's bonus (1+ sum of cash bonus and other short-term cash

incentives awarded in the transition year); TALENT is $\sum \left| \dfrac{IFRS_{2006} - IFRS_{2005}}{TA} \right| \times (-1)$; TA is the log of the

average total assets; ACC is the net operating profit after tax minus the cash flow from operations; ROE3yrs is the average return on equity over three years; P_B is the ratio of price to book in the prior year; BSIZE is the number of directors on the board; EXDIR is the percentage of executive directors on the board; CPA is an indicator variable, which is set equal to one if the firm's CFO is a certified public accountant or chartered account, zero otherwise; TENURE is the number of years the CFO has been CFO in the firm until the end of the transition year.

The compensation variables; TOTAL, BASE, CASH and BONUS$_t$ are logged and winsorized at the 1st and 99th percentiles to avoid problems related to outliers.

This table uses an alternative proxy for firm performance. In this table ROA is replaced with ROE averaged over 3 years. The coefficient on ROE3yrs is not significant while the coefficient on the experimental variable TALENT remains significant in the predicted direction for TOTAL, BASE and CASH.

Table A4.3   CFO's accounting talent and the CFO's compensation levels in the transition year (average ROA as a measure of firm performance).

Evidence on the relation between the CFO's accounting talent and the CFO's compensation levels is reported as a regression of, the level of compensation on CFO's ability to accurately estimate accruals during the transition to the IFRS, economic determinants of the firm, corporate governance mechanisms and other CFO characteristics. The table reports results from the following OLS regression:

$$COMPENSATION_{it} = \beta + \beta_1 TALENT_{it} + \beta_2 TA_{it} + \beta_3 ACC_{it} + \beta_4 ROA3year_{it} + \beta_5 P\_B_{it-1} + \beta_6 BSIZE_{it}$$

$$+ \beta_7 EXDIR_{it} + \beta_8 CPA_{it} + \beta_9 TENURE_t + \sum \beta_i IND_{it} + \varepsilon_i$$

		Model (1) DepVar = Compensation levels as measured as:			
		TOTAL	BASE	CASH	BONUS$_t$
Variables	pred.sign	Coefficient (t-stats)	Coefficient (t-stats)	Coefficient (t-stats)	Coefficient (t-stats)
Intercept		10.187 (31.62)***	4.435 (37.21)***	9.904 (30.33)***	-1.248 (-0.41)
TALENT	(+)	0.697 (1.74)**	0.319 (2.15)**	0.727 (1.79)**	0.682 (0.18)
TA	(+)	0.359 (14.01)***	0.131 (13.80)***	0.371 (14.28)***	1.399 (5.66)***
ACC	(+)	0.040 (2.04)**	0.011 (1.78)**	0.025 (1.47)*	0.037 (0.23)
ROA3yrs	(+)	-0.087 (-0.61)	-0.082 (1.05)*	-0.148 (-1.02)	3.902 (2.31)***
P_B	(+)	0.039 (3.04)***	0.010 (2.07)**	0.042 (3.16)***	0.344 (2.83)***
BSIZE	(+)	0.003 (0.16)	-0.002 (-0.26)	0.004 (0.24)	0.111 (0.70)
EXDIR	(+)	0.039 (0.17)	0.005 (0.06)	-0.010 (-0.04)	-4.854 (-2.24)**
CPA	(+)	-0.007 (-0.11)	0.033 (1.39)*	0.040 (0.61)	-0.441 (-0.72)
TENURE	(+)	0.011 (1.28)*	0.002 (0.69)	0.011 (1.38)*	0.070 (0.90)
Industry controls		Yes	Yes	Yes	Yes
Adjusted R-squared		0.567	0.555	0.578	0.252
F-statistic		22.47	21.44	23.44	6.53
Observations		280	280	280	280

***,**,* significance at the 1, 5 and 10 percent levels, respectively, using a two-tailed (one-tailed) test if there is a non-directional (directional) prediction. TOTAL is the log of the CFO's total annual compensation (the sum of base salary, cash bonus, superannuation, pecuniary benefits, long-term compensation, retirement allowances and others); BASE is the log of the CFO's fixed base salary; CASH is the log of the CFO's cash compensation (the sum of base salary, cash bonus and other short-term incentives); BONUS$_t$ is the log of the CFO's bonus (1+ sum of cash bonus and other short-term cash incentives

awarded in the transition year); TALENT is $\sum \left| \dfrac{IFRS_{2006} - IFRS_{2005}}{TA} \right| \times (-1)$; TA is the log of the average total

assets; ACC is the net operating profit after tax minus the cash flow from operations; ROA3yrs is the average return on assets over three years; P_B is the ratio of price to book in the prior year; BSIZE is the number of directors on the board; EXDIR is the percentage of executive directors on the board; CPA is an indicator variable, which is set equal to one if the firm's CFO is a certified public accountant or chartered account, zero otherwise; and TENURE is the number of years the CFO has been CFO in the firm until the end of the transition year.

The compensation variables; TOTAL, BASE, CASH and BONUS$_t$ are logged and winsorized at the 1st and 99th percentiles to avoid problems related to outliers.

This table uses an alternative proxy for firm performance. In this table ROA is replaced with ROA averaged over 3 years. The coefficient on ROA3yrs is not significant except for BASE and BONUS$_t$ while the coefficient on the experimental variable TALENT remains significant in the predicted direction for TOTAL, BASE and CASH.

Table A4.4 CFO's accounting talent and the CFO's bonus compensation in the adoption year (ROE, average ROE and average ROA, as a measure of firm performance).

Evidence on the relation between the CFO's accounting talent and the CFO's bonus compensation in the subsequent year is reported as a regression of the CFO's bonus compensation in the adoption year, on the CFO's ability to accurately estimate accruals during the transition to the IFRS, corporate governance mechanisms and economic determinants. The table reports results from the following OLS regression:

$$BONUS_{i\,t+1} = \beta + \beta_1 TALENT_{it} + \beta_2 TA_{it} + \beta_3 ACC_{it} + \beta_4 ROA_{it-1} + \beta_5 P\_B_{it-1} + \beta_6 BSIZE_{it}$$
$$+ \beta_7 EXDIR_{it} + \beta_8 CPA_{it} + \beta_9 TENURE_{it} + \sum \beta_i IND_{it} + \varepsilon_i$$

		Model (2) DepVar = Compensation levels as measured as:		
		$BONUS_{t+1}$	$BONUS_{t+1}$	$BONUS_{t+1}$
Variables	pred.sign	Coefficient (t-stats)	Coefficient (t-stats)	Coefficient (t-stats)
Intercept		0.367 (0.12)	0.367 (0.12)	0.730 (0.24)
TALENT	(+)	8.211 (2.17)**	8.211 (2.17)**	8.217 (2.18)**
TA	(+)	1.401 (5.67)***	1.406 (5.67)***	1.349 (5.61)***
ACC	(+)	0.098 (0.63)	0.098 (0.63)	0.090 (0.58)
ROE		-0.165 (0.140)		
ROE3yrs	(+)		-0.667 (-1.64)*	
ROA3years				1.504 (1.12)
P_B	(+)	0.111 (0.93)	0.117 (0.97)	0.094 (0.77)
BSIZE	(+)	0.050 (0.31)	0.057 (0.36)	0.059 (0.37)
EXDIR	(+)	-2.470 (-1.14)	-2.727 (-1.29)*	-2.661 (-1.25)
CPA	(+)	-1.123 (-1.85)**	-1.227 (-2.01)	-1.161 (-1.91)**
TENURE	(+)	-0.060 (-0.78)	-0.633 (-0.83)	-0.058 (-0.75)
Industry controls		Yes	Yes	Yes
Adjusted R-squared		0.214	0.222	0.218
F-statistic		5.46	5.67	5.56
Observations		280	280	280

***,**,* significance at the 1, 5 and 10 percent levels, respectively, using a two-tailed (one-tailed) test if there is a non-directional (directional) prediction. $BONUS_{t+1}$ is the log of CFO bonus (1+ sum of cash bonus and other short-term cash incentives awarded in the subsequent year); TALENT is $\sum \left| \dfrac{IFRS_{2006} - IFRS_{2005}}{TA} \right| \times (-1)$; TA is the log of the average total assets; ACC is the net operating profit after tax minus the cash flow from operations; ROE is the return on equity in the prior year; ROE3yrs is the average return on equity over three years; ROA3yrs is the average return on assets over three years; P_B is the ratio of price to book in the prior year; BSIZE is the number of directors on the board; EXDIR is the percentage of executive directors on the board; CPA is an indicator variable, which is set equal to one if the firm's CFO is a certified public accountant or chartered account, zero otherwise; and TENURE is the number of years the CFO has been CFO in the firm until the end of the transition year.

The compensation variables; $BONUS_{t+1}$ is logged and winzorised at the 1 and 99 percentiles to avoid problems related to outliers.

This table uses an alternative proxy for firm performance. In this table ROA is replaced with ROE and ROE3years. The coefficients on these alternate proxies remain insignificant (except for $BONUS_{t+1}$) while the coefficient on the experimental variable, TALENT remains positive and significant.

Table A4.5 CFO's accounting talent and the CFO's bonus compensation in the adoption year (change in ROE as a measure of firm performance).

Evidence on the relation between the CFO's accounting talent and change in the CFO's bonus compensation in the adoption year is reported as a regression of the CFO's bonus change on the CFO's ability to accurately estimate accruals during the transition to the IFRS, corporate governance mechanisms and economic determinants. The table reports results from the following OLS regression:

$$BONUS_{it+1} = \beta + \beta_1 TALENT_{it} + \beta_2 \Delta TA_{it} + \beta_3 ACC_{it} + \beta_4 \Delta ROE_{it} + \beta_5 \Delta P\_B_{it} + \beta_6 BSIZE_{it}$$

$$+ \beta_7 EXDIR_{it} + \beta_8 CPA_{it} + \beta_9 TENURE_t + \sum \beta_i IND_{it} + \varepsilon_i$$

| | | Model (2) Dep Var = change in the CFO's BONUS compensation | |
| | | ΔBONUS | ΔBONUSIV (indicator variable) |
Variables	Pred.s ign	Coefficient (t-stats)	Coefficient (t-stats)
Intercept		-0.999 (-0.76)	-0.050 (-0.18)
TALENT	(+)	0.323 (1.42)*	0.785 (1.64)*
ΔTA	(+)	0.043 (1.97)**	0.041 (0.90)
ΔACC	(+)	0.002 (0.30)	0.013 (0.79)
ΔROE	(+)	-0.000 (-0.13)	-0.000 (-0.43)
ΔP_B	(+)	0.002 (0.30)	-0.007 (-0.45)
BSIZE	(+)	0.003 (0.52)	0.010 (0.73)
EXDIR	(+)	0.030 (0.30)	-0.009 (-0.04)
CPA	(+)	0.040 (1.32)*	0.073 (1.14)
TENURE	(+)	-0.003 (-0.82)	-0.024 (-3.04)***
Industry controls		Yes	Yes
Adjusted R-squared		-0.012	0.025
F-statistics		0.81	1.42
Observations		280	280

***,**,* significance at the 1, 5 and 10 percent levels, respectively, using a two-tailed (one-tailed) test if there is a non-directional (directional) prediction. ΔBONUS is change in BONUS from the transition year to the adoption year, divided by TOTAL; and ΔBONUSIV is an indicator variable set to equal to one if there was an increase in BONUS from the transition year to the adoption year; TALENT is $\sum \left| \dfrac{IFRS_{2006} - IFRS_{2005}}{TA} \right| \times (-1)$; TA is the log of the average total assets;

ACC is the net operating profit after tax minus the cash flow from operations; ΔROE is change in return on assets; P_B is the ratio of price to book in the prior year; BSIZE is the number of directors on the board; EXDIR is the percentage of executive directors on the board; CPA is an indicator variable, which is set equal to one if the firm's CFO is a certified public accountant or chartered account, zero otherwise; and TENURE is the number of years the CFO has been CFO in the firm until the end of the transition year.

An OLS regression is performed for column 1, using ΔBONUS as left-hand-side variable. A logit regression is performed for column 2 using ΔBONUSIV as left-hand-side variable. This table uses an alternative proxy for firm performance. In this table ΔROA is replaced with ΔROE. The coefficient on ΔROE remains insignificant while the coefficient on the experimental variable, TALENT remains positive and significant both for ΔBONUS and ΔBONUSIV.

110

Appendix 5: First-stage regression with three instruments.

This table reports results based on the following OLS regression:

$$TALENT_{it} = \beta_0 + \beta_1 BIG4_{it} + \beta_2 AFEES_{it} + \beta_3 YE_{it} + \varepsilon_i$$

Instruments	Pred.sign	Dep Var = TALENT Coefficient (t-stats)
Intercept		0.022
		(2.03)**
BIG4	-	-0.001
		(-0.08)
AFEES	-	2.249
		(1.73)**
YE	+	0.032
		(2.43)***
Adjusted R-squared		0.020
F-statistic		2.87
Observations		280

***,**,* significance at the 1, 5 and 10 percent levels, respectively, using a two-tailed (one-tailed) test if there is a non-directional (directional) prediction. TALENT is $\sum \left| \dfrac{IFRS_{2006} - IFRS_{2005}}{TA} \right| \times (--1)$; BIG4 is an indicator variable set to equal to one if the firm hired a big4 auditor during the transition to IFRS, zero otherwise; AFEES is total audit fees paid during the transition to IFRS, scaled by total assets and YE is an indicator variable set to equal to one if the firm had a December financial year end, zero otherwise.

Although the coefficient on AFEES and YE are significant in the predicted direction, this table suggests that the instruments identified are relatively weak with an F-statistic of 2.87. The suggested F-statistic for including three instruments in the first-stage regression is 12.83 (Larcker and Rusticus 2010).

Appendix 6   Quartiles, quintiles and deciles regressions.

Table A6.1   **CFO's accounting talent and the CFO's compensation levels in the transition year**
(quartiles).

Evidence on the relation between the CFO's accounting talent and the CFO's compensation is reported as a regression of, the level of compensation on CFO's ability to accurately estimate accruals during the transition to the IFRS, economic determinants of the firm, corporate governance mechanisms and other CFO characteristics. The table reports results from the following quartile regression:

$$COMPENSATION_{it} = \beta + \beta_1 TALENT_{it} + \beta_2 TA_{it} + \beta_3 ACC_{it} + \beta_4 ROA_{it-1} + \beta_5 P\_B_{it-1} + \beta_6 BSIZE_{it}$$
$$+ \beta_7 EXDIR_{it} + \beta_8 CPA_{it} + \beta_9 TENURE_t + \sum \beta_i IND_{it} + \varepsilon_i$$

| | | Model (1) DepVar = Compensation levels as measured as: | | | |
| | | TOTAL | BASE | CASH | BONUS$_t$ |
Variables	pred.sign	Coefficient (t-stats)	Coefficient (t-stats)	Coefficient (t-stats)	Coefficient (t-stats)
Intercept		10.846 (33.37)	4.753 (31.77)***	10.358 (24.33)***	-11.722 (-3.77)***
TALENT	(+)	1.330 (3.26)***	0.570 (3.06)***	1.167 (2.18)**	1.917 (0.36)
TA	(+)	0.377 (10.55)***	0.126 (7.45)***	0.394 (8.08)***	2.193 (6.48)***
ACC	(+)	0.0269 (5.49)***	0.010 (3.90)***	0.022 (3.14)***	-0.088 (-1.84)**
ROA	(+)	0.095 (0.35)	0.102 (0.86)	-0.005 (-0.01)	-0.964 (-0.41)
P_B	(+)	0.0204 (1.14)	0.004 (0.58)	0.038 (1.82)**	0.385 (2.42)***
BSIZE	(+)	-0.023 (-0.95)	-0.007 (-0.67)	-0.021 (-0.69)	0.019 (0.08)
EXDIR	(+)	-0.071 (-0.24)	0.023 (0.16)	0.235 (0.56)	-3.802 (-1.40)*
CPA	(+)	0.093 (0.99)	0.020 (0.47)	0.026 (0.21)	-0.283 (-0.34)
TENURE	(+)	-0.004 (-0.40)	-0.002 (-0.35)	0.002 (0.11)	0.103 (1.10)
Industry controls		Yes	Yes	Yes	Yes
Pseudo R-squared		0.345	0.329	0.342	0.120
Observations		280	280	280	280

***,**,* significance at the 1, 5 and 10 percent levels, respectively, using a two-tailed (one-tailed) test if there is a non-directional (directional) prediction. TOTAL is the log of the CFO's total annual compensation (the sum of base salary, cash bonus, superannuation, pecuniary benefits, long-term compensation, retirement allowances and others); BASE is the log of the CFO's fixed base salary; CASH is the log of the CFO's cash compensation (the sum of base salary, cash bonus and other short-term incentives); BONUS$_t$ is the log of the CFO's bonus (1+ sum of cash bonus and other short-term cash incentives awarded in the transition year); TALENT is $\sum \left| \dfrac{IFRS_{2006} - IFRS_{2005}}{TA} \right| \times (-1)$; TA is the log of the average total assets; ACC is the net operating profit after tax minus the cash flow from operations; ROA is the return on assets in the prior year; P_B is the ratio of price to book in the prior year; BSIZE is the number of directors on the board; EXDIR is the percentage of executive directors on the board; CPA is an indicator variable, which is set equal to one if the firm's CFO is a certified public accountant or chartered account, zero otherwise; and TENURE is the number of years the CFO has been CFO in the firm until the end of the transition year.

The compensation variables; TOTAL, BASE, CASH and BONUS$_t$ are logged and winsorized at the 1st and 99th percentiles to avoid problems related to outliers.

Table A6.2 **CFO's accounting talent and the CFO's compensation levels in the transition year**
(quintiles).

Evidence on the relation between the CFO's accounting talent and the CFO's compensation is reported as a regression of, the CFO's level of compensation on CFO's ability to accurately estimate accruals during the transition to the IFRS, economic determinants of the firm, corporate governance mechanisms and other CFO characteristics. The table reports results from the following quintile regression:

$$COMPENSATION_{it} = \beta + \beta_1 TALENT_{it} + \beta_2 TA_{it} + \beta_3 ACC_{it} + \beta_4 ROA_{it-1} + \beta_5 P\_B_{it-1} + \beta_6 BSIZE_{it}$$
$$+ \beta_7 EXDIR_{it} + \beta_8 CPA_{it} + \beta_9 TENURE_t + \sum \beta_i IND_{it} + \varepsilon_i$$

		Model (1) DepVar = Compensation levels as measured as:			
		TOTAL	BASE	CASH	BONUS$_t$
Variables	pred.sign	Coefficient (t-stats)	Coefficient (t-stats)	Coefficient (t-stats)	Coefficient (t-stats)
Intercept		10.794 (26.63)***	4.661 (25.64)***	10.287 (20.86)***	-12.083 (-3.73)
TALENT	(+)	1.176 (2.31)***	0.472 (2.01)**	0.973 (1.60)**	1.642 (0.27)
TA	(+)	0.378 (8.68)***	0.142 (7.25)***	0.386 (6.90)***	2.070 (6.26)***
ACC	(+)	0.024 (4.04)***	0.007 (2.27)**	0.017 (2.07)**	-0.110 (-2.18)
ROA	(+)	0.081 (0.23)	0.065 (0.47)	-0.057 (-0.15)	-1.812 (-0.79)
P_B	(+)	0.031 (1.33)*	0.010 (0.93)	0.051 (1.87)**	0.518 (2.75)***
BSIZE	(+)	-0.020 (-0.68)	-0.013 (-1.08)	-0.011 (-0.33)	0.174 (0.75)
EXDIR	(+)	0.006 (0.02)	-0.017 (-0.09)	0.211 (0.43)	-3.708 (-1.35)*
CPA	(+)	0.081 (0.71)	0.058 (1.09)	0.049 (0.36)	-0.476 (-0.55)
TENURE	(+)	-0.000 (-0.04)	0.001 (0.24)	0.005 (0.32)	0.118 (1.19)
Industry controls		Yes	Yes	Yes	Yes
Pseudo R-squared		0.329	0.315	0.329	0.054
Observations		280	280	280	280

***,**,* significance at the 1, 5 and 10 percent levels, respectively, using a two-tailed (one-tailed) test if there is a non-directional (directional) prediction. TOTAL is the log of the CFO's total annual compensation (the sum of base salary, cash bonus, superannuation, pecuniary benefits, long-term compensation, retirement allowances and others); BASE is the log of the CFO's fixed base salary; CASH is the log of the CFO's cash compensation (the sum of base salary, cash bonus and other short-term incentives); BONUS$_t$ is the log of the CFO's bonus (1+ sum of cash bonus and other short-term cash incentives

awarded in the transition year); TALENT is $\sum \left| \dfrac{IFRS_{2006} - IFRS_{2005}}{TA} \right| \times (-1)$; TA is the log of the average total

assets; ACC is the net operating profit after tax minus the cash flow from operations; ROA is the return on assets in the prior year; P_B is the ratio of price to book in the prior year; BSIZE is the number of directors on the board; EXDIR is the percentage of executive directors on the board; CPA is an indicator variable, which is set equal to one if the firm's CFO is a certified public accountant or chartered account, zero otherwise; and TENURE is the number of years the CFO has been CFO in the firm until the end of the transition year.

The compensation variables; TOTAL, BASE, CASH and BONUS$_t$ are logged and winsorized at the 1st and 99th percentiles to avoid problems related to outliers.

Table A6.1 **CFO's accounting talent and the CFO's compensation levels in the transition year** (deciles).

Evidence on the relation between the CFO's accounting talent and CFO's compensation is reported as a regression of, the CFO's level of compensation on CFO's ability to accurately estimate accruals during the transition to the IFRS, economic determinants of the firm, corporate governance mechanisms and other CFO characteristics. The table reports results from the following deciles regression:

$$COMPENSATION_{it} = \beta + \beta_1 TALENT_{it} + \beta_2 TA_{it} + \beta_3 ACC_{it} + \beta_4 ROA_{it-1} + \beta_5 P\_B_{it-1} + \beta_6 BSIZE_{it}$$
$$+ \beta_7 EXDIR_{it} + \beta_8 CPA_{it} + \beta_9 TENURE_t + \sum \beta_i IND_{it} + \varepsilon_i$$

| | | Model (1) DepVar = Compensation levels as measured as: | | | |
| | | TOTAL | BASE | CASH | BONUS$_t$ |
Variables	pred.sign	Coefficient (t-stats)	Coefficient (t-stats)	Coefficient (t-stats)	Coefficient (t-stats)
Intercept		10.791 (21.27)***	4.668 (20.16)***	10.197 (14.91)***	0
TALENT	(+)	3.414 (5.09)***	1.111 (3.01)***	2.681 (2.46)***	0
TA	(+)	0.318 (6.21)***	0.120 (4.18)***	0.326 (3.77)***	0
ACC	(+)	0.017 (2.12)**	0.000 (0.04)	0.326 (3.77)***	0
ROA	(+)	0.071 (0.19)	0.166 (0.79)	-0.003 (-0.31)	0
P_B	(+)	0.042 (1.21)	0.013 (1.60)*	0.053 (1.18)	0
BSIZE	(+)	-0.015 (-0.39)	-0.015 (-0.87)	-0.010 (-0.18)	0
EXDIR	(+)	-0.284 (-0.49)	-0.195 (-0.80)	-0.302 (-0.37)	0
CPA	(+)	0.193 (1.29)*	0.089 (1.33)*	0.082 (0.38)	0
TENURE	(+)	0.023 (1.34)*	0.009 (0.97)	0.021 (0.80)	0
Industry controls		Yes	Yes	Yes	Yes
Pseudo R-squared		0.305	0.318	0.318	-0.000
Observations		280	280	280	280

***,**,* significance at the 1, 5 and 10 percent levels, respectively, using a two-tailed (one-tailed) test if there is a non-directional (directional) prediction. TOTAL is the log of the CFO's total annual compensation (the sum of base salary, cash bonus, superannuation, pecuniary benefits, long-term compensation, retirement allowances and others); BASE is the log of the CFO's fixed base salary; CASH is the log of the CFO's cash compensation (the sum of base salary, cash bonus and other short-term incentives); BONUS$_t$ is the log of the CFO's bonus (1+ sum of cash bonus and other short-term cash incentives awarded in the transition year); TALENT is $\sum \left| \dfrac{IFRS_{2006} - IFRS_{2005}}{TA} \right| \times (-1)$; TA is the log of the average total assets; ACC is the net operating profit after tax minus the cash flow from operations; ROA is the return on assets in the prior year; P_B is the ratio of price to book in the prior year; BSIZE is the number of directors on the board; EXDIR is the percentage of executive directors on the board; CPA is an indicator variable, which is set equal to one if the firm's CFO is a certified public accountant or chartered account, zero otherwise; and TENURE is the number of years the CFO has been CFO in the firm until the end of the transition year.

The compensation variables; TOTAL, BASE, CASH and BONUS$_t$ are logged and winsorized at the 1st and 99th percentiles to avoid problems related to outliers.

The results from Appendix 6A, 6B and 6C support the main findings of Chapter 2.

Appendix 7: Net profit as a scalar for TALENT instead of total assets (TA).

Table A7.1   CFO's accounting talent and the CFO's compensation levels in the transition year.

Evidence on the relation between the CFO's accounting talent and the CFO's compensation is reported as a regression of, the CFO's level of compensation on CFO's ability to accurately estimate accruals during the transition to the IFRS, economic determinants of the firm, corporate governance mechanisms and other CFO characteristics. The table reports results from the following OLS regression:

$$COMPENSATION_{it} = \beta + \beta_1 TALENT_{it} + \beta_2 TA_{it} + \beta_3 ACC_{it} + \beta_4 ROA_{it-1} + \beta_5 P\_B_{it-1} + \beta_6 BSIZE_{it}$$

$$+ \beta_7 EXDIR_{it} + \beta_8 CPA_{it} + \beta_9 TENURE_t + \sum \beta_i IND_{it} + \varepsilon_i$$

		Model (1) DepVar = Compensation levels as measured as:			
		TOTAL	BASE	CASH	BONUS$_t$
Variables	pred.sign	Coefficient (t-stats)	Coefficient (t-stats)	Coefficient (t-stats)	Coefficient (t-stats)
Intercept		10.152 (31.44)***	4.441 (36.96)***	9.901 (30.14)***	-2.241 (-0.73)
TALENT	(+)	0.038 (2.03)**	0.015 (2.12)**	0.032 (1.70)**	-0.017 (-0.10)
TA	(+)	0.369 (13.94)***	0.131 (13.31)***	0.374 (13.89)***	1.594 (6.31)***
ACC	(+)	0.033 (1.98)**	0.010 (1.61)*	0.023 (1.35)*	0.060 (0.37)
ROA	(+)	-0.0700 (-0.33)	0.035 (0.44)	0.042 (0.19)	-0.823 (-0.40)
P_B	(+)	0.034 (2.57)***	0.007 (1.50)*	0.036 (2.71)***	0.333 (2.66)***
BSIZE	(+)	0.000 (0.00)	-0.002 (-0.29)	0.003 (0.18)	0.060 (0.37)
EXDIR	(+)	0.044 (0.19)	-0.009 (-0.11)	-0.030 (-0.13)	-3.882 (-1.77)**
CPA	(+)	-0.001 (-0.01)	0.033 (1.39)*	0.042 (0.64)	-0.392 (-0.63)
TENURE	(+)	0.010 (1.28)*	0.002 (0.71)	0.012 (1.39)*	0.078 (1.00)
Industry controls		Yes	Yes	Yes	Yes
Adjusted R-squared		0.568	0.551	0.576	0.237
F-statistics		22.58	21.13	23.26	6.10
Observations		280	280	280	280

***,**,* significance at the 1, 5 and 10 percent levels, respectively, using a two-tailed (one-tailed) test if there is a non-directional (directional) prediction. TOTAL is the log of the CFO's total annual compensation (the sum of base salary, cash bonus, superannuation, pecuniary benefits, long-term compensation, retirement allowances and others); BASE is the log of the CFO's fixed base salary; CASH is the log of the CFO's cash compensation (the sum of base salary, cash bonus and other short-term incentives); BONUS$_t$ is the log of the CFO's bonus (1+ sum of cash bonus and other short-term cash incentives

awarded in the transition year); TALENT is $\sum \left| \dfrac{IFRS_{2006} - IFRS_{2005}}{NP} \right| \times (-1)$; TA is the log of the average total

assets; ACC is the net operating profit after tax minus the cash flow from operations; ROA is the return on assets in the prior year; P_B is the ratio of price to book in the prior year; BSIZE is the number of directors on the board; EXDIR is the percentage of executive directors on the board; CPA is an indicator variable, which is set equal to one if the firm's CFO is a certified public accountant or chartered account, zero otherwise; TENURE is the number of years the CFO has been CFO in the firm until the end of the transition year; and NP is net profit after tax before extraordinary items.

The compensation variables; TOTAL, BASE, CASH and BONUS$_t$ are logged and winsorized at the 1st and 99th percentiles to avoid problems related to outliers.

Results do not change when an alternative scalar is used to calculate TALENT. The experimental variable TALENT remains positive and significant for TOTAL, BASE and CASH models. The controls variables for size (TA), complexity (ACC) and firm investment opportunities (P_B) remain positive and significant.

Table A7.2   CFO's accounting talent and the CFO's bonus compensation in the adoption year.

Evidence on the relation between the CFO's accounting talent and the CFO's bonuses in the subsequent year is reported as a regression of the CFO's bonus compensation in the adoption year, on CFO's ability to accurately estimate accruals during the transition to the IFRS, corporate governance mechanisms and economic determinants. The table reports results from the following OLS regression:

$$BONUS_{i t+1} = \beta + \beta_1 TALENT_{it} + \beta_2 TA_{it} + \beta_3 ACC_{it} + \beta_4 ROA_{it-1} + \beta_5 P\_B_{it-1} + \beta_6 BSIZE_{it}$$
$$+ \beta_7 EXDIR_{it} + \beta_8 CPA_{it} + \beta_9 TENURE_{it} + \sum \beta_i IND_{it} + \varepsilon_i$$

		Model (2) Dep Var = BONUS$_{t+1}$
Variables	Pred.sign	Coefficient (t-stats)
Intercept		-0.110 (-0.04)
TALENT	(+)	-0.024 (0.13)
TA	(+)	1.473 (5.86)***
ACC	(+)	0.084 (0.53)
ROA	(+)	-0.004 (-0.00)
P_B	(+)	0.133 (1.07)
BSIZE	(+)	0.035 (0.22)
EXDIR	(+)	-2.369 (-1.09)
CPA	(+)	-1.085 (-1.76)**
TENURE	(+)	-0.046 (-0.59)
Industry controls		Yes
Adjusted R-squared		0.120
F-statistic		5.09
Observations		280

***,**,* significance at the 1, 5 and 10 percent levels, respectively, using a two-tailed (one-tailed) test if there is a non-directional (directional) prediction. BONUS$_{t+1}$ is the log of CFO bonus (1+ sum of cash bonus and other short-term cash incentives awarded in the subsequent year); TALENT is $\sum \left| \dfrac{IFRS_{2006} - IFRS_{2005}}{NP} \right| \times (-1)$; TA is the log of the average total assets; ACC is the net operating profit after tax minus the cash flow from operations; ROA is the return on assets in the prior year; P_B is the ratio of price to book in the prior year; BSIZE is the number of directors on the board; EXDIR is the percentage of executive directors on the board; CPA is an indicator variable, which is set equal to one if the firm's CFO is a certified public accountant or chartered account, zero otherwise; TENURE is the number of years the CFO has been CFO in the firm until the end of the transition year; and NP is net profit after tax before extraordinary items.
The compensation variable BONUS$_{t+1}$ is logged and winsorized at the 1st and 99th percentiles to avoid problems related to outliers.

The results do not support H_2 when net profit is used a scalar for talent instead of total assets.

116

Table A7.3 CFO's accounting talent and the CFO's bonus compensation in the adoption year.

Evidence on the relation between the CFO's accounting talent and change in the CFO's bonus compensation in the adoption year is reported as a regression of the CFO's bonus change on the CFO's ability to accurately estimate accruals during the transition to the IFRS, corporate governance mechanisms and economic determinants. The table reports results from the following OLS regression:

$$BONUS_{it+1} = \beta + \beta_1 TALENT_{it} + \beta_2 \Delta TA_{it} + \beta_3 ACC_{it} + \beta_4 \Delta ROA_{it} + \beta_5 \Delta P\_B_{it-1} + \beta_6 BSIZE_{it}$$
$$+ \beta_7 EXDIR_{it} + \beta_8 CPA_{it} + \beta_9 TENURE_t + \sum \beta_i IND_{it} + \varepsilon_i$$

| | | Model (2) Dep Var = change in the CFO's BONUS compensation | |
| | | ΔBONUS | ΔBONUSIV (indicator variable) |
Variables	Pred.sign	Coefficient (t-stats)	Coefficient (z-stats)
Intercept		-0.083 (-0.30)	-0.892 (-0.84)
TALENT	(+)	0.005 (0.23)	0.019 (0.22)
ΔTA	(+)	0.028 (0.63)	0.108 (0.57)
ΔACC	(+)	0.012 (0.78)	0.107 (0.55)
ΔROA	(+)	0.023 (1.08)	0.112 (1.08)
ΔP_B	(+)	-0.020 (-1.79)**	-0.236 (-1.48)*
BSIZE	(+)	0.011 (0.78)	0.049 (0.80)
EXDIR	(+)	-0.008 (-0.04)	0.024 (0.03)
CPA	(+)	0.095 (1.50)*	0.465 (1.67)**
TENURE	(+)	-0.023 (-2.91)***	-0.136 (-2.74)***
Industry controls		Yes	Yes
Adjusted R-squared		0.021	
Pseudo R-squared			0.065
F-statistics		1.33	
Observations		280	280

***,**,* significance at the 1, 5 and 10 percent levels, respectively, using a two-tailed (one-tailed) test if there is a non-directional (directional) prediction. ΔBONUS is change in BONUS from the transition year to the adoption year, divided by TOTAL; and ΔBONUSIV is an indicator variable set to equal to one if there was an increase in BONUS from the transition year to the adoption year; TALENT is $\sum \left| \dfrac{IFRS_{2006} - IFRS_{2005}}{NP} \right| \times (-1)$; ΔTA is change in total assets; ACC is change in net operating profit after tax minus the cash flow from operations; ROA is change in the return on assets in the prior year; P_B is change in the ratio of price to book in the prior year; BSIZE is the number of directors on the board; EXDIR is the percentage of executive directors on the board; CPA is an indicator variable, which is set equal to one if the firm's CFO is a certified public accountant or chartered account, zero otherwise; TENURE is the number of years the CFO has been CFO in the firm until the end of the transition year; and NP is net profit after tax before extraordinary items

The results may be sensitive to the scalar used to calculate TALENT. The coefficients on TALENT for ΔBONUS and ΔBONUSIV are not significant. However, the adjusted R-squared in this model is very weak.

Table A7.4 **CFO's accounting talent and the CFO's turnover in the adoption year and one year after the adoption year.**

Evidence on the relation between CFO's accounting talent and the CFO's turnover is reported as a regression of the CFO's turnover, on CFO's ability to accurately estimate accruals during the transition to the IFRS, corporate governance mechanisms and economic determinants. The table reports results from the following Logit regression:

$$TURNOVER_{it+1} = \beta + \beta_1 TALENT_{it} + \beta_2 TA_{it} + \beta_3 ACC_{it} + \beta_4 ROA_{it-1} + \beta_5 P\_B_{it-1} + \beta_6 BSIZE_{it}$$
$$+ \beta_7 EXDIR_{it} + \beta_8 BLOCK_{it} + \beta_9 CPA + \beta_{10} TENURE_{it} + \sum \beta_i IND_{it} + \varepsilon_i$$

Variables	Pred.sign	Model (3) DepVar = CFO Turnover in the Adoption year and in the year subsequent to the Adoption year	
		$TURN_{t+1}$	$TURN_{t+2}$
		Coefficient (z-stats)	Coefficient (z-stats)
Intercept		-1.568 (-0.91)	-0.249 (-0.16)
TALENT	(+)	0.165 (1.22)	0.006 (0.08)
TA	(-)	0.073 (0.41)	-0.111 (-0.92)
ACC	(-)	-0.497 (-0.28)	-0.922 (-0.71)
ROA	(-)	-0.326 (-0.25)	-2.953 (-2.65)
P_B	(-)	-0.164 (-1.50)*	0.011 (0.17)
BSIZE	(+)	0.010 (0.08)	0.031 (0.40)
EXDIR	(-)	2.901 (2.05)**	-0.929 (-0.85)
BLOCK	(+)	-0.716 (-1.34)*	-0.142 (-0.34)
CPA	(-)	-0.501 (-1.21)	0.128 (0.43)
TENURE	(-)	-0.150 (-1.66)**	0.034 (0.94)
Industry controls		Yes	Yes
Pseudo R-squared		0.153	0.080
Observations		280	257

***,**,* significance at the 1, 5 and 10 percent levels, respectively, using a two-tailed (one-tailed) test if there is a non-directional (directional) prediction. $TURN_{t+1}$ is an indicator variable set to equal to one if the company hires a new CFO during the adoption year, zero otherwise; $TURN_{t+2}$ is an indicator variable set to equal to one if the company hires a new CFO one year subsequent to the adoption year, zero otherwise; TALENT is $\sum \left| \dfrac{IFRS_{2006} - IFRS_{2005}}{NP} \right| \times (-1)$; TA is the log of the average total assets; ACC is the net operating profit after tax minus the cash flow from operations; ROA is the return on assets in the prior year; P_B is the ratio of price to book in the prior year; BSIZE is the number of directors on the board; EXDIR is the percentage of executive directors on the board; BLOCK is an indicator variable set to equal to one if block holding is greater than 5%, zero otherwise; CPA is an indicator variable, which is set equal to one if the firm's CFO is a certified public accountant or chartered account, zero otherwise; TENURE is the number of years the CFO has been CFO in the firm until the end of the transition year; and NP is net profit after tax before extraordinary items

Results no longer support H_3 that there is an inverse relation between CFO accounting talent and CFO turnover, when net profit is used as a scalar for TALENT instead of total assets.

Appendix 8: Sample partitioned by financial year ends.

Table A8.1   **CFO's accounting talent and the CFO's compensation levels in the transition year.**

Evidence on the relation between the CFO's accounting talent and CFO's compensation is reported as a regression of, the CFO's level of compensation on CFO's ability to accurately estimate accruals during the transition to the IFRS, economic determinants of the firm, corporate governance mechanisms and other CFO characteristics. The table reports results from the following OLS regression:

$$COMPENSATION_{it} = \beta + \beta_1 TALENT_{it} + \beta_2 TA_{it} + \beta_3 ACC_{it} + \beta_4 ROA_{it-1} + \beta_5 P\_B_{it-1} + \beta_6 BSIZE_{it} + \beta_7 EXDIR_{it} + \beta_8 CPA_{it} + \beta_9 TENURE_t$$

$$+ \sum \beta_i IND_{it} + \varepsilon_i$$

Variables	pred.sign	December year end (earlier adopters in the reporting)				Other financial year ends (later adopters in the reporting cycle)			
		Model (1) DepVar = Compensation levels as measured as:				Model (1) DepVar = Compensation levels as measured as:			
		TOTAL	BASE	CASH	BONUS$_t$	TOTAL	BASE	CASH	BONUS$_t$
		Coefficient (t-stats)	Coefficient (t-stats)	Coefficient (t-stats)	Coefficient (t-stats)	Coefficientic (t-stats)	Coefficient (t-stats)	Coefficient (t-stats)	Coefficient (t-stats)
Intercept		9.787	4.072	9.175	3.774	10.369	4.562	10.151	-4.130
		(10.475)***	(11.01)***	(9.60)***	(0.58)	(29.63)***	(36.13)***	(29.08)***	(-1.18)
TALENT	(+)	1.475	1.116	2.459	2.888	0.634	0.338	0.704	-3.316
		(1.05)	(2.01)**	(1.71)**	(0.30)	(1.41)*	(2.09)**	(1.57)*	(0.74)
TA	(+)	0.367	0.127	0.332	1.444	0.365	0.127	0.367	1.738
		(3.28)***	(2.88)***	(2.90)***	(1.86)**	(13.28)***	(12.77)***	(13.37)***	(6.33)***
ACC	(+)	-1.510	-0.084	-0.394	-8.016	0.039	0.0124	0.030	0.068
		(-1.11)	(-0.16)	(-0.28)	(-0.85)	(2.46)***	(2.15)**	(1.89)**	(0.42)
ROA	(+)	-0.522	0.723	1.685	-17.109	-0.069	0.016	-0.030	-0.805
		(-0.43)	(1.50)*	(1.36)*	(-2.03)**	(-0.32)	(0.20)	(-0.14)	(-0.38)
P_B	(+)	0.054	0.008	0.048	0.290	0.026	0.006	0.031	0.334
		(1.52)*	(0.60)	(1.33)*	(1.18)	(1.84)**	(1.25)	(2.19)**	(2.38)***
BSIZE	(+)	0.066	0.027	0.124	0.320	-0.011	-0.005	-0.010	-0.013
		(0.91)	(0.92)	(1.67)*	(0.63)	(-0.65)	(-0.72)	(-0.57)	(-0.08)
EXDIR	(+)	-0.490	0.047	-0.148	-4.617	0.154	0.000	0.078	-2.636
		(-0.56)	(0.14)	(-0.17)	(-0.76)	(0.64)	(0.01)	(0.32)	(-1.10)
CPA	(+)	-0.421	-0.019	-0.140	-3.292	0.031	0.039	0.060	0.064
		(-1.66)*	(-0.19)	(-0.54)	(-1.86)	(0.46)	(1.56)*	(0.87)	(0.09)
TENURE	(+)	0.011	-0.004	-0.003	-0.069	0.013	0.003	0.014	0.094
		(0.32)	(-0.33)	(-0.10)	(-0.29)	(1.51)*	(0.97)	(1.71)**	(1.12)
Industry controls		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Adjusted R-squared		0.508	0.481	0.551	0.344	0.589	0.586	0.604	0.253
F-statistics		3.58	3.31	4.07	2.31	21.06	20.83	22.33	5.74
Observations		41	41	41	41	239	239	239	239

***,**,* significance at the 1, 5 and 10 percent levels, respectively, using a two-tailed (one-tailed) test if there is a non-directional (directional) prediction. TOTAL is the log of the CFO's total annual compensation (the sum of base salary, cash bonus, superannuation, pecuniary benefits, long-term compensation, retirement allowances and others); BASE is the log of the CFO's fixed

base salary; CASH is the log of the CFO's cash compensation (the sum of base salary, cash bonus and other short-term incentives); $BONUS_t$ is the log of the CFO's bonus (1+ sum of cash bonus and other short-term cash incentives awarded in the transition year); TALENT is $\sum \left| \dfrac{IFRS_{2006} - IFRS_{2005}}{TA} \right| \times (-1)$; TA is the log of the average total assets; ACC is the net operating profit after tax minus the cash flow from operations; ROA is the return on assets in the prior year; P_B is the ratio of price to book in the prior year; BSIZE is the number of directors on the board; EXDIR is the percentage of executive directors on the board; CPA is an indicator variable, which is set equal to one if the firm's CFO is a certified public accountant or chartered account, zero otherwise; and TENURE is the number of years the CFO has been CFO in the firm until the end of the transition year.

The compensation variables; TOTAL, BASE, CASH and $BONUS_t$ are logged and winsorized at the 1st and 99th percentiles to avoid problems related to outliers.

In this table the sample is partitioned based on the financial reporting cycle. Firms with December financial year ends were the first to implement IFRS, with the majority of firm implementing IFRS in June. CFOs having to report later in the reporting cycle have the benefit of more time to become familiar with the IFRS (e.g professional training and experienced external auditors) over CFOs having to report earlier in the reporting cycle. As such it is expected that the relation between the CFO's accounting talent and the CFO's compensation to be stronger for CFO's reporting earlier in the reporting cycle. The results from this table suggest that the relation between the CFO's accounting talent and the CFO's compensation is similar across both samples, with the exception of total compensation (TOTAL).

Table A8.2   CFO's accounting talent and the CFO's bonus compensation in the adoption year.

Evidence on the relation between the CFO's accounting talent and the CFO's bonuses in the subsequent year is reported as a regression of the CFO's bonus compensation in the adoption year, on CFO's ability to accurately estimate accruals during the transition to the IFRS, corporate governance mechanisms and economic determinants. The table reports results from the following OLS regression:

$$COMPENSATION_{it+1} = \beta + \beta_1 TALENT_{it} + \beta_2 TA_{it} + \beta_3 ACCRUALS_{it} + \beta_4 ROA_{it-1} + \beta_5 P\_B_{it-1} + \beta_6 BSIZE_{it}$$
$$+ \beta_7 EXDIR_{it} + \beta_8 CPA_{it} + \beta_9 TENURE_{it} + \sum \beta_i IND_{it} + \varepsilon_i$$

Variables	Pred.sign	December year end (earlier adopters in the reporting)	Other financial year ends (later adopters in the reporting cycle)
		Model (2) Dep Var = BONUS$_{t+1}$	
		Coefficient (t-stats)	Coefficient (t-stats)
Intercept		0.840 (0.11)	-0.649 (-0.19)
TALENT	(+)	3.780 (0.34)	5.714 (1.29)*
TA	(+)	1.579 (1.76)**	1.534 (5.65)***
ACC	(+)	-15.825 (-1.45)*	0.093 (0.59)
ROA	(+)	-12.807 (-1.31)	0.108 (0.05)
P_B	(+)	-0.030 (-0.11)	0.171 (1.23)
BSIZE	(+)	0.072 (0.12)	0.007 (0.04)
EXDIR	(+)	5.491 (0.79)	-2.770 (-1.72)
CPA	(+)	-1.641 (-0.80)	-1.160 (-1.72)**
TENURE	(+)	-0.248 (-0.92)	-0.062 (-0.75)
Industry controls		Yes	Yes
Adjusted R-squared		0.080	0.230
F-statistic		1.22	5.19
Observations		41	239

***,**,* significance at the 1, 5 and 10 percent levels, respectively, using a two-tailed (one-tailed) test if there is a non-directional (directional) prediction. BONUS$_{t+1}$ is the log of CFO bonus (1+ sum of cash bonus and other short-term cash incentives awarded in the subsequent year); TALENT is $\sum \left| \dfrac{IFRS_{2006} - IFRS_{2005}}{TA} \right| \times (-1)$; TA is the log of the average total assets; ACC is the net operating profit after tax minus the cash flow from operations; ROA is the return on assets in the prior year; P_B is the ratio of price to book in the prior year; BSIZE is the number of directors on the board; EXDIR is the percentage of executive directors on the board; CPA is an indicator variable, which is set equal to one if the firm's CFO is a certified public accountant or chartered account, zero otherwise; and TENURE is the number of years the CFO has been CFO in the firm until the end of the transition year.

The compensation variables; TOTAL, BASE, CASH and BONUS$_t$ are logged and winsorized at the 1st and 99th percentiles to avoid problems related to outliers. The compensation variable BONUS$_{t+1}$ is logged and winsorized at the 1st and 99th percentiles to avoid problems related to outliers.

In this table the sample is partitioned based on the financial reporting cycle. Firms with December financial year ends were the first to implement IFRS, with the majority of firm implementing IFRS in June. CFOs having to report later in the reporting cycle have the benefit of more time to become familiar with the IFRS (e.g professional training and experienced external auditors) over CFOs having to report earlier in the reporting cycle. As such it is expected that the relation between the CFO's accounting talent and the CFO's bonus compensation to be stronger for CFO's reporting earlier in the reporting cycle. However, the coefficient on $BONUS_{t+1}$ is only positive and significant for the 'other financial years-ends'.

Table A8.3   **CFO's accounting talent and the CFO's bonus compensation in the adoption year.**

Evidence on the relation between the CFO's accounting talent and change in the CFO's bonus compensation in the adoption year is reported as a regression of the CFO's bonus change on the CFO's ability to accurately estimate accruals during the transition to the IFRS, corporate governance mechanisms and economic determinants. The table reports results from the following OLS regression:

$$BONUS_{it+1} = \beta + \beta_1 TALENT_{it} + \beta_2 \Delta TA_{it} + \beta_3 ACC_{it} + \beta_4 \Delta ROA_{it} + \beta_5 \Delta P\_B_{it} + \beta_6 BSIZE_{it}$$

$$+ \beta_7 EXDIR_{it} + \beta_8 CPA_{it} + \beta_9 TENURE_t + \sum \beta_i IND_{it} + \varepsilon_i$$

Variables	Pred.sign	December year end (earlier adopters in the reporting)		Other financial year ends (later adopters in the reporting cycle)	
		Model (2) Dep Var = change in the CFO's BONUS compensation			
		ΔBONUS	ΔBONUSIV (indicator variable)	ΔBONUS	ΔBONUSIV (indicator variable)
		Coefficient (t-stats)	Coefficient (z-stats)	Coefficient (t-stats)	Coefficient (z-stats)
Intercept		0.135 (0.91)	-0.063 (0.17)	0.004 (0.03)	0.245 (0.19)
TALENT	(+)	0.431 (0.13)	1.414 (1.45)*	0.423 (1.56)*	4.313 (1.30)*
ΔTA	(+)	-0.035 (-0.51)	-0.357 (-1.03)	0.046 (1.90)**	0.186 (0.88)
ΔACC	(+)	-0.361 (-1.23)	-0.625 (-0.83)	0.004 (0.44)	0.108 (0.58)
ΔROA	(+)	0.047 (1.77)**	0.137 (1.17)	0.008 (0.65)	0.114 (1.07)
ΔP_B	(+)	-0.011 (-0.32)	-0.055 (-0.59)	0.003 (0.43)	-0.180 (-1.24)
BSIZE	(+)	-0.026 (-1.96)**	-0.008 (-0.25)	0.006 (0.81)	0.026 (0.39)
EXDIR	(+)	-0.164 (-0.98)	-0.513 (-1.20)	0.038 (0.33)	0.003 (0.00)
CPA	(+)	0.053 (0.88)	0.131 (0.85)	0.041 (1.20)	0.228 (0.76)
TENURE	(+)	0.001 (0.08)	0.005 (0.29)	-0.003 (-0.68)	-0.130 (-2.52)***
Industry controls		Yes	Yes	Yes	Yes
Adjusted R-squared		-0.056		-0.021	
Pseudo R-squared			0.047		0.070
F-statistics		0.88	0.99	0.72	1.16
Observations		41	41	239	239

***,**,* significance at the 1, 5 and 10 percent levels, respectively, using a two-tailed (one-tailed) test if there is a non-directional (directional) prediction. ΔBONUS is change in BONUS from the transition year to the adoption year, divided by TOTAL; and ΔBONUSIV is an indicator variable set to equal to one if there was an increase in BONUS from the transition year to the adoption year. An OLS regression is performed for column 1, using ΔBONUS as left-hand-side variable. A logit regression is performed for column 2 using ΔBONUSIV as left-hand-side variable.

In this table the sample is partitioned based on the financial reporting cycle. Firms with December financial year ends were the first to implement IFRS, with the majority of firm implementing IFRS in June. CFOs having to report later in the reporting cycle have the benefit of more time to become familiar with the IFRS (e.g professional training and experienced external auditors) over CFOs having to report earlier in the reporting cycle. As such it is expected that the relation between the CFO's accounting talent and the CFO's bonus change to be stronger for CFO's reporting earlier in the reporting cycle. The coefficient on TALENT is positive and significant across both measures of bonus change for the December year end firms. However, TALENT is positive and significant only for ΔBONUS for firms with other financial year ends

Table A8.4   CFO's accounting talent and the CFO's turnover in the adoption year and one year after the adoption year.

Evidence on the relation between CFO's accounting talent and the CFO's turnover is reported as a regression of the CFO's turnover, on CFO's ability to accurately estimate accruals during the transition to the IFRS, corporate governance mechanisms and economic determinants. The table reports results from the following Logit regression:

$$TURNOVER_{it+1} = \beta + \beta_1 TALENT_{it} + \beta_2 TA_{it} + \beta_3 ACC_{it} + \beta_4 ROA_{it-1} + \beta_5 P\_B_{it-1} + \beta_6 BSIZE_{it}$$
$$+ \beta_7 EXDIR_{it} + \beta_8 BLOCK_{it} + \beta_9 CPA + \beta_{10} TENURE_{it} + \sum \beta_i IND_{it} + \varepsilon_i$$

Variables	Pred.sign	December year end (earlier adopters in the reporting)		Other financial year ends (later adopters in the reporting cycle)	
		Model (3) Dep Var = CFO turnover in the adoption year and in the year subsequent to the adoption year			
		$TURN_{t+1}$	$TURN_{t+2}$	$TURN_{t+1}$	$TURN_{t+2}$
		Coefficient (z-stats)	Coefficient (z-stats)	Coefficient (z-stats)	Coefficient (z-stats)
Intercept		-50.188 (-1.22)	-6.759 (-1.14)	-0.649 (-0.19)	0.102 (0.06)
TALENT	(+)	-41.724 (-0.95)	-13.675 (-1.00)	-5.714 (-1.29)*	-0.545 (-0.27)
TA	(-)	6.171 (1.17)	0.813 (1.30)*	1.534 (5.65)***	-0.192 (-1.41)*
ACC	(-)	-74.823 (-1.07)	-3.013 (-0.42)	0.093 (0.59)	-1.771 (-1.22)
ROA	(-)	-28.822 (-0.80)	-7.162 (-1.02)	0.108 (0.05)	-2.664 (-2.31)**
P_B	(-)	2.761 (0.98)	-0.049 (-0.28)	0.171 (1.23)	-0.005 (-0.07)
BSIZE	(+)	-1.578 (-0.71)	-0.909 (-0.26)	0.007 (0.04)	0.017 (0.20)
EXDIR	(-)	27.485 (1.24)	0.057 (0.01)	-2.770 (-1.72)	-0.590 (-0.49)
BLOCK	(+)	omitted	omitted	omitted	-0.112 (-0.26)
CPA	(-)	-5.829 (-1.09)	-1.722 (-1.17)	-1.160 (-1.72)**	0.189 (0.56)
TENURE	(-)	0.295 (0.34)	-0.014 (-0.06)	-0.062 (-0.75)	0.057 (1.45)*
Industry controls		Yes	Yes	Yes	Yes
Pseudo R-squared		0.579	0.291	0.285	0.093
Observations		41	37	239	220

***,**,* significance at the 1, 5 and 10 percent levels, respectively, using a two-tailed (one-tailed) test if there is a non-directional (directional) prediction. ΔBONUS is change in BONUS from the transition year to the adoption year, divided by TOTAL; and ΔBONUSIV is an indicator variable set to equal to one if there was an increase in BONUS from the transition year to the adoption year; TALENT is $\sum \left| \dfrac{IFRS_{2006} - IFRS_{2005}}{TA} \right| \times (-1)$; TA is the log of the average total assets;

ACC is the net operating profit after tax minus the cash flow from operations; ROA is the return on assets in the prior year; P_B is the ratio of price to book in the prior year; BSIZE is the number of directors on the board; EXDIR is the percentage of executive directors on the board; BLOCK is an indicator variable set to equal to one if block holding is greater than 5%, zero otherwise; CPA is an indicator variable, which is set equal to one if the firm's CFO is a certified public accountant or chartered account, zero otherwise; and TENURE is the number of years the CFO has been CFO in the firm until the end of the transition year.

In this table the sample is partitioned based on the financial reporting cycle. Firms with December financial year ends were the first to implement IFRS, with the majority of firm implementing IFRS in June. CFOs having to report later in the reporting cycle have the benefit of more time to become familiar with the IFRS (e.g professional training and experienced external auditors) over CFOs having to report earlier in the reporting cycle. As such it is expected that the relation between the CFO's accounting talent and the CFO's turnover to be stronger for CFO's reporting later in the reporting cycle. The coefficient on TALENT for firms reporting later in the reporting cycle is negative and significant, which supports this argument. BLOCK is omitted in result columns 1, 2 and 3 due to lack of variation in this variable when the sample is split.

Appendix 9: Explanatory power of including the CFO's accounting talent, economic determinants of the firm, corporate governance mechanisms and other CFO characteristics.

Table A9.1   **CFO's accounting talent and the CFO's compensation levels in the transition year.**

Evidence on the relation between the CFO's accounting talent and the CFO's compensation is reported as a regression of, the CFO's **TOTAL** compensation on CFO's ability to accurately estimate accruals during the transition to the IFRS, economic determinants of the firm, corporate governance mechanisms and other CFO characteristics. The table reports results from the following OLS regression:

$$COMPENSATION_{it} = \beta + \beta_1 TALENT_{it} + \beta_2 TA_{it} + \beta_3 ACC_{it} + \beta_4 ROA_{it-1} + \beta_5 P\_B_{it-1} + \beta_6 BSIZE_{it}$$
$$+ \beta_7 EXDIR_{it} + \beta_8 CPA_{it} + \beta_9 TENURE_t + \sum \beta_i IND_{it} + \varepsilon_i$$

		DepVar = TOTAL			
Variables	pred.sign	Coefficient (t-stats)	Coefficient (t-stats)	Coefficient (t-stats)	Coefficient (t-stats)
Intercept		12.612 (34.20)***	10.248 (35.00)***	10.216 (32.91)***	10.193 (31.40)***
TALENT	(+)	1.630 (2.84)***	0.738 (1.86)**	0.738 (1.85)**	0.698 (1.74)**
TA	(+)		0.360 (16.74)***	0.359 (13.72)***	0.358 (13.40)***
ACC	(+)		0.033 (2.03)**	0.034 (2.04)**	0.034 (2.02)**
ROA	(+)		-0.042 (-0.21)	-0.046 (-0.22)	-0.051 (-0.24)
P_B	(+)		0.033 (2.64)***	0.038 (2.93)***	0.038 (2.99)***
BSIZE	(+)			0.004 (0.22)	0.002 (0.15)
EXDIR	(+)			0.058 (0.25)	0.041 (0.18)
CPA	(+)				-0.008 (-0.12)
TENURE	(+)				0.011 (1.30)*
Industry controls		Yes	Yes	Yes	Yes
Adjusted R-squared		0.084	0.570	0.567	0.566
F-statistics		3.83	29.42	25.33	22.42
Observations		280	280	280	280

***,**,* significance at the 1, 5 and 10 percent levels, respectively, using a two-tailed (one-tailed) test if there is a non-directional (directional) prediction. TOTAL is the log of the CFO's total annual compensation (the sum of base salary, cash bonus, superannuation, pecuniary benefits, long-term compensation, retirement allowances and others); TALENT is

$$\sum \left| \frac{IFRS_{2006} - IFRS_{2005}}{TA} \right| \times (-1)$$; TA is the log of the average total assets; ACC is the net operating profit after tax

minus the cash flow from operations; ROA is the return on assets in the prior year; P_B is the ratio of price to book in the

prior year; BSIZE is the number of directors on the board; EXDIR is the percentage of executive directors on the board; CPA is an indicator variable, which is set equal to one if the firm's CFO is a certified public accountant or chartered account, zero otherwise; and TENURE is the number of years the CFO has been CFO in the firm until the end of the transition year.

TOTAL is logged and winsorized at the 1st and 99th percentiles to avoid problems related to outliers.

Table A9.2   CFO's accounting talent and the CFO's compensation levels in the transition year.

Evidence on the relation between the CFO's accounting talent and the CFO's compensation is reported as a regression of, the CFO's **BASE** compensation on CFO's ability to accurately estimate accruals during the transition to the IFRS, economic determinants of the firm, corporate governance mechanisms and other CFO characteristics. The table reports results from the following OLS regression:

$$COMPENSATION_{it} = \beta + \beta_1 TALENT_{it} + \beta_2 TA_{it} + \beta_3 ACC_{it} + \beta_4 ROA_{it-1} + \beta_5 P\_B_{it-1} + \beta_6 BSIZE_{it}$$
$$+ \beta_7 EXDIR_{it} + \beta_8 CPA_{it} + \beta_9 TENURE_t + \sum \beta_i IND_{it} + \varepsilon_i$$

		DepVar = BASE			
Variables	pred.sign	Coefficient (t-stats)	Coefficient (t-stats)	Coefficient (t-stats)	Coefficient (t-stats)
Intercept		5.313 (39.92)***	4.508 (41.55)***	4.510 (39.11)***	4.460 (37.01)***
TALENT	(+)	0.647 (3.13)***	0.337 (2.28)**	0.337 (2.27)**	0.321 (2.16)**
TA	(+)		0.124 (15.53)***	0.124 (12.75)***	0.126 (12.74)***
ACC	(+)		0.010 (1.67)**	0.010 (1.63)**	0.010 (1.68)**
ROA	(+)		0.053 (0.68)	0.053 (0.67)	0.042 (0.54)
P_B	(+)		0.009 (1.83)**	0.009 (1.82)**	0.009 (1.89)**
BSIZE	(+)			-0.000 (-0.02)	-0.000 (-0.12)
EXDIR	(+)			-0.006 (-0.07)	-0.011 (-0.13)
CPA	(+)				0.031 (1.26)
TENURE	(+)				0.002 (0.72)
Industry controls		Yes	Yes	Yes	Yes
Adjusted R-squared		0.104	0.554	0.551	0.551
F-statistics		4.60	27.67	23.80	21.15
Observations		280	280	280	280

***,**,* significance at the 1, 5 and 10 percent levels, respectively, using a two-tailed (one-tailed) test if there is a non-directional (directional) prediction. BASE is the log of the CFO's fixed base salary; TALENT is $\sum \left| \dfrac{IFRS_{2006} - IFRS_{2005}}{TA} \right| \times (-1)$; TA is the log of the average total assets; ACC is the net operating profit after tax minus the cash flow from operations; ROA is the return on assets in the prior year; P_B is the ratio of price to book in the prior year; BSIZE is the number of directors on the board; EXDIR is the percentage of executive directors on the board; CPA is an indicator variable, which is set equal to one if the firm's CFO is a certified public accountant or chartered account, zero otherwise; and TENURE is the number of years the CFO has been CFO in the firm until the end of the transition year.

BASE is logged and winsorized at the 1st and 99th percentiles to avoid problems related to outliers.

Table A9.3   CFO's accounting talent and the CFO's compensation levels in the transition year.

Evidence on the relation between the CFO's accounting talent and CFO compensation is reported as a regression of, the CFO's **CASH** compensation on the CFO's ability to accurately estimate accruals during the transition to the IFRS, economic determinants of the firm, corporate governance mechanisms and other CFO characteristics. The table reports results from the following OLS regression:

$$COMPENSATION_{it} = \beta + \beta_1 TALENT_{it} + \beta_2 TA_{it} + \beta_3 ACC_{it} + \beta_4 ROA_{it-1} + \beta_5 P\_B_{it-1} + \beta_6 BSIZE_{it}$$
$$+ \beta_7 EXDIR_{it} + \beta_8 CPA_{it} + \beta_9 TENURE_t + \sum \beta_i IND_{it} + \varepsilon_i$$

Variables	pred.sign	DepVar = CASH			
		Coefficient (t-stats)	Coefficient (t-stats)	Coefficient (t-stats)	Coefficient (t-stats)
Intercept		12.458 (33.15)***	10.046 (33.85)***	10.032 (31.81)***	9.946 (30.19)***
TALENT	(+)	1.702 (2.91)***	0.775 (1.92)**	0.784 (1.93)**	0.730 (1.79)**
TA	(+)		0.367 (16.79)***	0.361 (13.57)***	0.363 (13.41)***
ACC	(+)		0.024 (1.42)*	0.024 (1.39)*	0.024 (1.41)*
ROA	(+)		0.061 (0.29)*	0.077 (0.36)	0.059 (0.27)
P_B	(+)		0.039 (2.99)***	0.039 (2.98)***	0.040 (3.06)***
BSIZE	(+)			0.007 (0.42)	0.005 (0.32)
EXDIR	(+)			-0.015 (-0.06)	-0.035 (-0.15)
CPA	(+)				0.035 (0.54)
TENURE	(+)				0.011 (1.39)*
Industry controls		Yes	Yes	Yes	Yes
Adjusted R-squared		0.097	0.579	0.576	0.576
F-statistics		4.34	30.45	26.22	23.30
Observations		280	280	280	280

***,**,* significance at the 1, 5 and 10 percent levels, respectively, using a two-tailed (one-tailed) test if there is a non-directional (directional) prediction. CASH is the log of the CFO's cash compensation (the sum of base salary, cash bonus

and other short-term incentives); TALENT is $\sum \left| \dfrac{IFRS_{2006} - IFRS_{2005}}{TA} \right| \times (-1)$; TA is the log of the average total

assets; ACC is the net operating profit after tax minus the cash flow from operations; ROA is the return on assets in the prior year; P_B is the ratio of price to book in the prior year; BSIZE is the number of directors on the board; EXDIR is the percentage of executive directors on the board; CPA is an indicator variable, which is set equal to one if the firm's CFO is a certified public accountant or chartered account, zero otherwise; and TENURE is the number of years the CFO has been CFO in the firm until the end of the transition year.
CASH is logged and winsorized at the 1st and 99th percentiles to avoid problems related to outliers.

Table A9.4   CFO's accounting talent and the CFO's compensation levels in the transition year.

Evidence on the relation between the CFO's accounting talent and the CFO's compensation is reported as a regression of, the CFO's **BONUS** compensation on CFO's ability to accurately estimate accruals during the transition to the IFRS, economic determinants of the firm, corporate governance mechanisms and other CFO characteristics. The table reports results from the following OLS regression:

$$COMPENSATION_{it} = \beta + \beta_1 TALENT_{it} + \beta_2 TA_{it} + \beta_3 ACC_{it} + \beta_4 ROA_{it-1} + \beta_5 P\_B_{it-1} + \beta_6 BSIZE_{it}$$
$$+ \beta_7 EXDIR_{it} + \beta_8 CPA_{it} + \beta_9 TENURE_t + \sum \beta_i IND_{it} + \varepsilon_i$$

Variables	pred.sign	DepVar = BONUS$_t$			
		Coefficient (t-stats)	Coefficient (t-stats)	Coefficient (t-stats)	Coefficient (t-stats)
Intercept		8.234 (3.01)***	-3.983 (-1.37)*	-2.494 (-0.84)	-2.168 (-0.70)
TALENT	(+)	5.415 (1.27)	0.933 (0.24)	1.257 (0.33)	1.058 (0.28)
TA	(+)		1.787 (8.68)***	1.619 (6.49)***	1.585 (6.22)***
ACC	(+)		0.109 (0.69)	0.065 (0.41)	0.607 (0.38)
ROA	(+)		-1.673 (-0.85)	-0.892 (-0.44)	-0.827 (-0.41)
P_B	(+)		0.324 (2.65)***	0.324 (2.66)***	0.328 (2.68)***
BSIZE	(+)			0.066 (0.41)	0.062 (0.38)
EXDIR	(+)			-3.802 (-1.74)**	-3.905 (-1.78)**
CPA	(+)				-0.397 (-0.64)
TENURE	(+)				0.076 (0.97)
Industry controls		Yes	Yes	Yes	Yes
Adjusted R-squared		0.025	0.236	0.240	0.237
F-statistics		1.78	7.63	6.86	6.11
Observations		280	280	280	280

***,**,* significance at the 1, 5 and 10 percent levels, respectively, using a two-tailed (one-tailed) test if there is a non-directional (directional) prediction. BONUS$_t$ is the log of the CFO's bonus (1+ sum of cash bonus and other short-term cash incentives awarded in the transition year); TALENT is $\sum \left| \dfrac{IFRS_{2006} - IFRS_{2005}}{TA} \right| \times (-1)$; TA is the log of the average total assets; ACC is the net operating profit after tax minus the cash flow from operations; ROA is the return on assets in the prior year; P_B is the ratio of price to book in the prior year; BSIZE is the number of directors on the board; EXDIR is the percentage of executive directors on the board; CPA is an indicator variable, which is set equal to one if the firm's CFO is a certified public accountant or chartered account, zero otherwise; and TENURE is the number of years the CFO has been CFO in the firm until the end of the transition year.
BONUS$_t$ is logged and winsorized at the 1st and 99th percentiles to avoid problems related to outliers.

Table A9.5   **CFO's accounting talent and the CFO's bonus compensation in the adoption year.**

Evidence on the relation between CFO's accounting talent and change in the CFO's bonus compensation in the adoption year is reported as a regression of the CFO's bonus change, on CFO's ability to accurately estimate accruals during the transition to the IFRS, corporate governance mechanisms and economic determinants. The table reports results from the following OLS regression:

$$BONUS_{it+1} = \beta + \beta_1 TALENT_{it} + \beta_2 \Delta TA_{it} + \beta_3 ACC_{it} + \beta_4 \Delta ROA_{it} + \beta_5 \Delta P\_B_{it} + \beta_6 BSIZE_{it}$$

$$+ \beta_7 EXDIR_{it} + \beta_8 CPA_{it} + \beta_9 TENURE_t + \sum \beta_i IND_{it} + \varepsilon_i$$

		DepVar = $\Delta BONUS_t$			
Variables	pred.sign	Coefficient (t-stats)	Coefficient (t-stats)	Coefficient (t-stats)	Coefficient (t-stats)
Intercept		-0.044 (-0.33)	-0.047 (-0.41)	-0.066 (-0.52)	-0.103 (-0.79)
TALENT	(+)	0.087 (0.42)	0.311 (1.47)*	0.314 (1.48)*	0.311 (1.46)**
ΔTA	(+)		0.045 (2.10)**	0.045 (2.08)**	0.044 2.03**
ΔACC	(+)		0.002 (0.27)	0.003 (0.36)	0.003 (0.28)
ΔROA	(+)		0.008 (0.77)	0.008 (0.75)	0.009 (0.85)
ΔP_B	(+)		0.002 (0.32)	0.002 (0.28)	0.002 (0.28)
BSIZE	(+)			0.002 (0.36)	0.003 (0.50)
EXDIR	(+)			0.046 (0.47)	0.033 (0.33)
BLOCK	(+)				0.044 (1.46)**
CPA	(+)				-0.003 (-0.83)
TENURE	(+)				
Industry controls		Yes	Yes	Yes	Yes
Adjusted R-squared		-0.013	-0.005	-0.011	-0.008
Observations		280	280	280	280

***,**,* significance at the 1, 5 and 10 percent levels, respectively, using a two-tailed (one-tailed) test if there is a non-directional (directional) prediction. ΔBONUS is change in BONUS from the transition year to the adoption year, divided by TOTAL; TALENT is $\sum \left| \dfrac{IFRS_{2006} - IFRS_{2005}}{TA} \right| \times (-1)$; TA is the log of the average total assets;

ACC is the net operating profit after tax minus the cash flow from operations; ROA is the return on assets in the prior year; P_B is the ratio of price to book in the prior year; BSIZE is the number of directors on the board; EXDIR is the percentage of executive directors on the board; CPA is an indicator variable, which is set equal to one if the firm's CFO is a certified public accountant or chartered account, zero otherwise; and TENURE is the number of years the CFO has been CFO in the firm until the end of the transition year.

Table A9.6   **CFO's accounting talent and the CFO's bonus compensation in the adoption year.**

Evidence on the relation between the CFO's accounting talent and change in the CFO's bonus compensation in the adoption year is reported as a regression of the CFO's bonus change on the CFO's ability to accurately estimate accruals during the transition to the IFRS, corporate governance mechanisms and economic determinants. The table reports results from the following regression Logit regression:

$$BONUS_{it+1} = \beta + \beta_1 TALENT_{it} + \beta_2 \Delta TA_{it} + \beta_3 \Delta ACC_{it} + \beta_4 \Delta ROA_{it} + \beta_5 \Delta P\_B_{it} + \beta_6 BSIZE_{it}$$
$$+ \beta_7 EXDIR_{it} + \beta_8 CPA_{it} + \beta_9 TENURE_t + \sum \beta_i IND_{it} + \varepsilon_i$$

Dep Var = ΔBONUSIV (indicator variable)

Variables	Pred.sign	Coefficient (z-stats)	Coefficient (z-stats)	Coefficient (z-stats)	Coefficient (z-stats)
Intercept		-0.635 (-0.73)	-0.442 (-0.49)	-0.741 (-0.71)	-0.760 (-0.71)
TALENT	(+)	2.922 (1.42)*	5.181 (1.70)**	5.216 (1.71)**	5.473 (1.73)**
ΔTA	(+)		0.180 (0.90)	0.191 (0.94)	0.202 (0.97)
ΔACC	(+)		0.105 (0.56)	0.107 (0.55)	0.109 (0.57)
ΔROA	(+)		0.098 (0.96)	0.095 (0.92)	0.107 (1.03)
ΔP_B	(+)		-0.216 (-1.46)*	-0.221 (1.47)*	-0.208 (-1.36)*
BSIZE	(+)			0.036 (0.60)	0.050 (0.82)
EXDIR	(+)			-0.000 (-0.00)	0.074 (0.08)
CPA	(+)				0.417 (1.48)*
TENURE	(+)				-0.140 (-2.82)***
Industry controls		Yes	Yes	Yes	Yes
Pseudo R-squared		0.018	0.041	0.042	
Observations		280	280	280	280

***,**,* significance at the 1, 5 and 10 percent levels, respectively, using a two-tailed (one-tailed) test if there is a non-directional (directional) prediction. The sample consists of 280 firm observations. ΔBONUSIV is an indicator variable set to equal to one if there was an increase in BONUS from the transition year to the adoption year; TALENT is $\sum \left| \dfrac{IFRS_{2006} - IFRS_{2005}}{TA} \right| \times (-1)$; TA is the log of the average total assets; ACC is the net operating profit after tax minus the cash flow from operations; ROA is the return on assets in the prior year; P_B is the ratio of price to book in the prior year; BSIZE is the number of directors on the board; EXDIR is the percentage of executive directors on the board; CPA is an indicator variable, which is set equal to one if the firm's CFO is a certified public accountant or chartered account, zero otherwise; and TENURE is the number of years the CFO has been CFO in the firm until the end of the transition year.

Appendix 10: Earnings quality metrics (positive) and implementation errors.

This table provides evidence on the relation between positive TACC, MJONES and PERSIST, implementation errors and fundamental characteristics of the firm. The table reports results from the following OLS regression:

$$Earningsquality_{it} = \beta + \beta_1 ERRORS_{it} + \beta_2 TA_{it} + \beta_3 \sigma(CFO)_{it} + \beta_4 \sigma(SALES)_{it} + \beta_5 OPERCYCLE_{it} + \beta_6 NEG_{it} + \beta_7 CAP\_INT_{it} + \varepsilon_i$$

| Variables | Pred. sign | Dependent variables: Earnings quality metrics measured as: | | | | | |
| | | TACC | | MJONES | | PERSIST | |
		Coefficient (t-stats)	Coefficient (t-stats)	Coefficient (t-stats)	Coefficient (t-stats)	Coefficient (t-stats)	Coefficient (t-stats)
Intercept		1.230	7.115	68.114	65.721	175.595	175.489
		(0.03)	(0.18)	(1.28)	(1.21)	(2.88)***	(2.90)***
ERRORS	+/-		0.161		-0.026		-0.138
			(1.32)*		(-0.25)		(-1.74)**
Firm fundamentals:							
TA	-	0.994	0.109	-4.913	-4.556	-7.814	-6.815
		(0.24)	(0.03)	(-0.89)	(-0.79)	(-1.23)	(-1.08)
σ(CFO)	+	11.395	13.982	8.858	8.214	-50.303	-44.487
		(0.80)	(0.98)	(0.82)	(0.74)	(-2.27)**	(-2.00)**
σ(SALES)	+	-2.575	-1.816	3.918	3.943	-5.445	-5.644
		(-0.46)	(-0.32)	(1.12)	(1.12)	(-1.23)	(-1.29)
OPERCYCLE	+	9.954	8.365	3.965	4.222	-5.879	-5.613
		(1.79)**	(1.48)*	(0.64)	(0.67)	(-0.71)	(-0.68)
NEG	+	24.374	21.543	12.920	13.547	-17.212	-14.282
		(2.00)**	(1.75)**	(0.96)	(0.98)	(-1.01)	(-0.84)
CAP_INT	+	-8.722	-8.619	12.403	12.321	-7.008	-6.125
		(-1.67)*	(-1.66)*	(2.17)**	(2.14)**	(-0.97)	(-0.85)
Adjusted R-squared		0.195	0.206	0.101	0.091	0.051	0.064
F-statistics		3.39	3.19	2.72	2.31	2.39	2.51
Observations		60	60	94	94	157	157

***,**,* significance at the 1, 5 and 10 percent levels, respectively, using a two-tailed (one-tailed) test if there is a non-directional (directional) prediction. All variables are defined in Table 3.2. This table uses the ranked value of TACC, MJONES, PERSIST and ERRORS. The first column reports the results based on a sample of positive TACC. The second column reports the results based on a sample of positive 'abnormal' accruals as estimated by MJONES. The third column reports the results based on positive PERSIST. DD, PREDICT and SMOOTH are not included as they only have positive values. The results based on these earnings metrics have already been documented in Table 3.4. The coefficient on ERRORS is positive and significant for TACC, not significant for MJONES and negative and significant for PERSIST. These findings are consistent with the findings documented in Table 3.4.

Appendix 11: Earnings quality metrics (negative) and implementation errors.

This table provides evidence on the relation between negative TACC, MJONES and PERSIST, implementation errors and fundamental characteristics of the firm. The table reports results from the following OLS regression:

$$Earningsquality_{it} = \beta + \beta_1 ERRORS_{it} + \beta_2 TA_{it} + \beta_3 \sigma(CFO)_{it} + \beta_4 \sigma(SALES)_{it} + \beta_5 OPERCYCLE_{it} + \beta_6 NEG_{it} + \beta_7 CAP\_INT_{it} + \varepsilon_i$$

| Variables | Pred. sign | Dependent variables: Earnings quality metrics measured as: | | | | | |
| | | TACC | | MJONES | | PERSIST | |
		Coefficient (t-stats)	Coefficient (t-stats)	Coefficient (t-stats)	Coefficient (t-stats)	Coefficient (t-stats)	Coefficient (t-stats)
Intercept		96.569	72.868	177.425	165.440	11.240	1.812
		(1.88)**	(1.44)*	(4.19)***	(3.80)***	(0.29)	(0.04)
ERRORS	+/-		0.229		0.107		0.165
			(2.84)***		(1.16)		(0.89)
Firm fundamentals:							
TA	-	-3.749	-3.319	-15.912	-15.368	-0.151	0.192
		(-0.69)	(-0.63)	(-3.65)***	(-3.51)***	(-0.04)	(0.05)
σ(CFO)	+	-1.286	1.459	8.931	9.184	2.814	3.748
		(-0.12)	(0.14)	(0.84)	(0.87)	(0.56)	(0.72)
σ(SALES)	+	-0.879	-1.344	0.568	0.564	-2.314	-2.411
		(-0.29)	(-0.45)	(0.20)	(0.20)	(-1.37)*	(-1.42)*
OPERCYCLE	+	-10.711	-7.450	-0.040	1.081	5.193	6.214
		(-1.52)*	(-1.07)	(-0.01)	(0.15)	(1.08)	(1.25)
NEG	+	33.439	30.644	-2.838	-3.001	1.783	3.510
		(2.28)**	(2.14)**	(-0.22)	(-0.23)	(0.17)	(0.33)
CAP_INT	+	24.402	22.337	17.421	16.907	1.999	2.450
		(3.68)***	(3.43)***	(2.74)***	(2.66)	(0.39)	(0.47)
Adjusted R-squared		0.112	0.158	0.158	0.162	-0.062	-0.070
F-statistics		3.88	4.66	4.23	3.83	0.61	0.63
Observations		138	138	104	104	41	41

***,**,* significance at the 1, 5 and 10 percent levels, respectively, using a two-tailed (one-tailed) test if there is a non-directional (directional) prediction. All variables are defined in Table 3.2. This table uses the ranked value of TACC, MJONES, PERSIST and ERRORS. The first column reports the results based on a sample of negative TACC. The second column reports the results based on a sample of negative 'abnormal' accruals as estimated by MJONES. The third column reports the results based on negative PERSIST. DD, PREDICT and SMOOTH are not included as they only have positive values. The results based on these earnings metrics have already been documented in Table 3.4. The coefficient on ERRORS is positive and significant for TACC and not significant for MJONES. This is consistent with the main findings of Table 3.4. However, the coefficient on ERRORS for PERSIST is not significant for the negative sample.

Appendix 12: Earnings quality metrics and implementation errors (using indicator variable).

This table provides evidence on the relation between earnings quality metrics, implementation errors and fundamental characteristics of the firm. The table reports results from the following OLS regression:

$$Earningsquality_{it} = \beta + \beta_1 ERRORSIV_{it} + \beta_2 TA_{it} + \beta_3 \sigma(CFO)_{it} + \beta_4 \sigma(SALES)_{it} + \beta_5 OPERCYCLE_{it} + \beta_6 NEG_{it} + \beta_7 CAP\_INT_{it} + \varepsilon_i$$

		Dependent variables: Earnings quality metrics measured as:											
		TACC		MJONES		DD		PERSIST		PREDICT		SMOOTH	
Variables	Pred. sign	Coefficient (t-stats)	Coefficient (t-stats)	Coefficient (t-stats)	Coefficient (t-stats)	Coefficient (t-stats)	Coefficient (t-stats)	Coefficient (t-stats)	Coefficient (t-stats)	Coefficient (t-stats)	Coefficient (t-stats)	Coefficient (t-stats)	Coefficient (t-stats)
Intercept		107.947 (1.58)*	94.342 (1.45)*	266.102 (4.23)***	263.055 (4.18)***	239.719 (5.40)***	235.513 (5.32)***	158.318 (2.34)***	164.341 (2.44)***	148.750 (3.49)***	143.836 (3.40)***	18.222 (0.32)	18.586 (0.32)
ERRORSIV	+/-		22.861 (2.93)***		6.840 (0.90)		9.067 (1.71)**		-12.983 (-1.61)*		10.595 (2.09)**		-0.785 (-0.11)
Firm fundamentals:													
TA	-	-3.497 (-0.50)	-3.456 (-0.50)	-23.534 (-3.55)***	-23.545 (-3.55)***	-21.097 (-4.50)***	-21.082 (-4.52)***	-5.305 (-0.74)	-5.327 (-0.75)	-9.497 (-2.11)**	-9.480 (-2.12)**	9.165 (1.50)	9.164 (1.50)*
σ(CFO)	+	2.906 (0.19)	5.275 (0.35)	17.217 (1.20)	18.007 (1.25)	34.037 (3.36)***	34.976 (3.46)***	-11.186 (-0.72)	-12.531 (-0.81)	22.429 (2.30)***	23.527 (2.43)***	-38.771 (-2.94)***	-38.852 (-2.93)***
σ(SALES)	+	-1.511 (-0.35)	1.932 (0.22)	2.512 (0.61)	2.571 (0.62)	7.809 (2.69)***	7.904 (2.73)***	-7.392 (-4.422)**	-7.528 (-1.71)*	4.763 (1.71)**	4.874 (1.76)**	-3.380 (-0.89)	-3.388 (-0.89)
OPERCYCLE	+	1.937 (0.22)	1.932 (0.22)	6.013 (0.71)	6.024 (0.71)	6.721 (1.13)	6.719 (1.13)	2.330 (0.26)	-2.333 (0.26)	-2.158 (-0.38)	-2.160 (-0.38)	-12.550 (-1.62)	-12.549 (-1.61)*
NEG	+	47.362 (2.53)***	43.387 (2.36)***	8.067 (0.46)	6.784 (0.38)	85.067 (6.81)***	83.490 (6.70)***	-30.974 (-1.63)*	-28.716 (-1.51)*	126.330 (10.53)***	124.488 (10.44)***	129.183 (7.94)***	129.319 (7.91)***
CAP_INT	+	15.446 (1.85)**	14.915 (1.82)**	30.849 (3.80)***	30.824 (3.79)***	-4.556 (-0.82)	-4.767 (-0.86)	-6.139 (-0.72)	-5.838 (-0.69)	-3.340 (-0.62)	-3.586 (-0.68)	2.361 (0.33)	2.379 (0.33)
Adjusted R-squared		0.055	0.091	0.146	0.145	0.577	0.581	0.021	0.029	0.610	0.617	0.284	0.280
F-statistics		2.90	3.81	6.58	5.75	45.83	40.09	1.69	1.83	52.42	46.35	14.01	11.9
Observations		198	198	198	198	198	198	198	198	198	198	198	198

***,**,* significance at the 1, 5 and 10 percent levels, respectively, using a two-tailed (one-tailed) test if there is a non-directional (directional) prediction. All variables are defined in Table 3.2. In this table the ERRORS is replaced with ERRORSIV, which is an indicator variable set to equal to one if ERRORS is greater than the median (0.009), zero otherwise. The coefficients on ERRORS for TACC, DD, PERSIST and PREDICT are significant in the predicted directions. The coefficients on MJONES and SMOOTH remain insignificant. The significance on firm fundamentals variables is similar when ERRORS is replaced with ERRORSIV. Overall these findings are similar to the main results reported in Table 3.4.

Appendix 13: Descriptive statistics on the Jones, modified Jones model and the modified Jones adjusted for performance

Table A13.1   Descriptive statistics on the Jones Model.

$$TACC_{it} = \alpha_1 + \alpha_2 \left(\frac{\Delta REV_{it}}{TA_{it-1}} \right) + \alpha_3 \left(\frac{PPE_{it}}{TA_{it-1}} \right) + \varepsilon_{it}$$

		Mean	Std dev.	Min	Q1	Median	Q3	Max
α_1	Coefficient	-0.044	0.189	-0.926	-0.136	-0.034	0.032	1.010
	t-statistics	-0.649	2.004	-14.400	-1.600	-0.650	0.560	4.440
	p-value	0.335	0.289	0.000	0.093	0.235	0.551	0.989
α_2	Coefficient	0.011	0.448	-3.027	-0.054	0.022	0.136	1.930
	t-statistics	0.244	2.402	-18.640	-0.620	0.300	1.100	10.230
	p-value	0.424	0.307	0.000	0.158	0.404	0.688	0.989
α_3	Coefficient	-0.007	2.043	-9.130	-0.183	-0.018	0.090	20.421
	t-statistics	-0.046	5.497	-10.480	-1.280	-0.200	0.670	71.730
	p-value	0.395	0.306	0.000	0.121	0.346	0.647	0.997
R-squared		0.297	0.246	0.000	0.104	0.223	0.415	1.000
Adjusted R-squared		0.150	0.297	-0.333	-0.075	0.061	0.308	1.000
F- statistic		5.383	14.314	0.000	0.610	1.390	3.57	93.33

	Mean	Std dev.	Min	Q1	Median	Q3	Max
Expected accruals	-0.017	0.233	-1.115	-0.086	-0.003	0.047	1.032
Unexpected accruals	0.006	0.348	-1.342	-0.102	-0.014	0.091	3.113
Absolute value of unexpected accruals	0.188	0.293	0.000	0.043	0.101	0.237	3.113

Table A13.2   **Descriptive statistics on the modified Jones model.**

$$TACC_{it} = \alpha_1 + \alpha_2\left(\frac{\Delta REV_{it} - \Delta REC_{it}}{TA_{it-1}}\right) + \alpha_3\left(\frac{PPE_{it}}{TA_{it-1}}\right) + \varepsilon_{it}$$

		Mean	Std dev.	Min	Q1	Median	Q3	Max
α_1	Coefficient	-0.046	0.190	-0.973	-0.133	-0.036	0.032	0.995
	t-statistics	-0.644	1.961	-13.890	-1.540	-0.690	0.530	5.310
	p-value	0.341	0.289	0.000	0.097	0.260	0.564	0.986
α_2	Coefficient	-0.032	0.545	-3.403	-0.087	0.002	0.112	2.570
	t-statistics	0.035	2.199	-18.570	-0.810	0.010	0.970	8.410
	p-value	0.427	0.307	0.000	0.154	0.405	0.668	0.999
α_3	Coefficient	0.051	2.350	-9.808	-0.162	-0.009	0.092	25.658
	t-statistics	0.107	6.062	-8.890	-1.400	-0.160	0.690	81.300
	p-value	0.410	0.318	0.000	0.123	0.359	0.707	0.994
R-squared		0.288	0.232	0.003	0.110	0.217	0.396	1.000
Adjusted R-squared		0.138	0.281	-0.275	-0.075	0.058	0.286	1.000
F- statistic		3.778	6.943	0.020	0.570	1.390	3.550	40.860

	Mean	Std dev.	Min	Q1	Median	Q3	Max
Expected accruals	0.138	0.281	-0.275	-0.075	0.058	0.286	1.000
Unexpected accruals	-0.014	0.247	-1.096	-0.089	-0.008	0.040	1.427
Absolute value of unexpected accruals	0.002	0.358	-1.472	-0.100	-0.013	0.091	3.119

Table A13.3 Descriptive statistics on the modified Jones adjusted for performance

$$TACC_{it} = \alpha_1 + \alpha_2\left(\frac{\Delta REV_{it} - \Delta REC_{it}}{TA_{it-1}}\right) + \alpha_3\left(\frac{PPE_{it}}{TA_{it-1}}\right) + \alpha_4 GROWTH_{t+1} + \varepsilon_{it}$$

		Mean	Std dev.	Min	Q1	Median	Q3	Max
α_1	Coefficient	-0.044	0.224	-1.058	-0.128	-0.033	0.037	1.333
	t-statistics	-0.519	1.488	-4.650	-1.380	-0.540	0.520	3.580
	p-value	0.379	0.283	0.001	0.143	0.298	0.609	0.978
α_2	Coefficient	0.004	0.481	-2.365	-0.099	0.002	0.114	3.141
	t-statistics	0.015	1.927	-7.270	-0.840	0.030	0.740	11.700
	p-value	0.456	0.316	0.000	0.171	0.452	0.738	0.992
α_3	Coefficient	-0.028	2.923	-11.988	-0.170	-0.009	0.097	31.213
	t-statistics	-0.197	1.575	-6.470	-1.030	-0.090	0.630	4.280
	p-value	0.426	0.298	0.000	0.142	0.416	0.652	0.999
α_4	Coefficient	-0.002	0.329	-0.784	-0.252	0.015	0.196	1.018
	t-statistics	0.016	1.256	-3.340	-0.750	0.040	0.700	5.980
	p-value	0.492	0.288	0.000	0.253	0.482	0.737	0.995
R-squared		0.369	0.233	0.011	0.192	0.329	0.498	0.941
Adjusted R-squared		0.115	0.331	-0.607	-0.122	0.068	0.285	0.920
F-statistic		3.151	4.792	0.040	0.720	1.440	3.290	47.000

	Mean	Std dev.	Min	Q1	Median	Q3	Max
Expected accruals	-0.013	0.293	-1.305	-0.082	-0.002	0.046	1.701
Unexpected accruals	0.001	0.402	-1.862	-0.103	-0.017	0.090	3.279
Absolute value of unexpected accruals	0.208	0.343	0.000	0.044	0.099	0.248	3.279

REFERENCES

Aier, J.K., Comprix, J., Gunlock, M.T. & Lee, D. 2005, 'The financial expertise of CFOs and Accounting restatements', *Accounting Horizons* vol. 19, no. 3, pp. 123-35.

Arthaud-Day, M.L., Certo, S.T., Dalton, C.M. & Dalton, D.R. 2006, 'A changing of the guard: executive and director turnover following corporate financial restatements.', *Academy of Management Journal* vol. 49, no. 6, pp. 1119-36.

ASIC 21 october 2003, *03-3320 International accounting standards - be prepared*, http://www.asic.gov.au/asic/asic.nsf/byheadline/03-332+International+accounting+standards+-+be+prepared!?openDocument.

Barefield, R.M. & Comiskey, E.E. 1971, 'Depreciation Policy and the Behavior of Corporate Profits', *Journal of Accounting Research*, vol. 9, no. 2, pp. 351-8.

Bayley, L. & Taylor, S. 2007, 'Identifying earnings overstatements: a practical test', *Working Paper*.

Beasley, M.S. 1996, 'An empirical analysis of the relation between the board of director composition and financial statement fraud', *The Accounting Review*, vol. 71, no. 4, pp. 443-65.

Bebchuk, L.A. & Fried, J.M. 2003, 'Executive Compensation as an Agency Problem', *Journal of Economic Perspectives*, vol. 17, no. 3, pp. 71-92.

Beidleman, C.R. 1973, 'Income Smoothing: The Role of Management', *Accounting Review*, vol. 48, no. 4, pp. 653-67.

Beneish, M.D. 1999, 'Incentives and penalties related to earnings overstatements that violate GAAP', *The Accounting Review* vol. 34, no. 4, pp. 425-57.

Bertrand, M. & Mullainathan, S. 2001, 'Are CEOs rewarded for luck? A test of performance filtering', *WP Mimeograph, Princeton University*.

Boles, C. 10 January 2010, 'US rep frank: determined to look into Wall Street pay', *Dow Jones Business News*.

Bowen, R.M., Rajgopal, S. & Venkatachalam, M. 2008, 'Accounting Discretion, Corporate Governance, and Firm Performance', *Contemporary Accounting Research*, vol. 25, no. 2, pp. 310-405.

Bushman, R.M., Indjejikian, R.J. & Smith, A. 1996, 'CEO compensation: The role of individual performance evaluation', *Journal of Accounting and Economics*, vol. 21, pp. 161-93.

Coles, J.L., Daniel, N.D. & Naveen, L. 2008, 'Boards: Does one size fit all', *Journal of Financial Economics*, vol. 87, no. 2, pp. 329-56.

Collins, D., Reitenga, A.L. & Sanchez, J.M. 2008, 'The impact of accounting restatements on CFO turnover and bonus compensation: does securities litigation matter?', *Working Paper*.

Conyon, M.J. 2006, 'Executive compensation and incentives.', *Academy of Management Perspectives*, pp. 25-44.

Core, J.E., Holthausen, R.W. & Larcker, D.F. 1999, 'Corporate governance, chief financial officer compensation, and firm performance', *Journal of Financial Economics*, vol. 51, pp. 371-406.

DeAngelo, L. 1988, 'Discussion of Evidence of Earnings Management from the Provision for Bad Debts', *Journal of Accounting Research*, vol. 26, no. 3, pp. 32-40.

Dechow, P., Ge, W. & Schrand, C. 2010, 'Understanding earnings quality: A review of the proxies, their determinants and their consequences', *Journal of Accounting & Economics*, vol. 50, no. 2/3, pp. 344-401.

Dechow, P.M. & Dichev, I.D. 2002, 'The Quality of Accruals and Earnings: The Role of Accrual Estimation Errors', *Accounting Review*, vol. 77, no. 4, p. 35.

Dechow, P.M., Ge, W., Larson, C.R. & Sloan, R.G. 2010, 'Predicting Material Accounting Misstatements', *Contemporary Accounting Research*, vol. 50, no. 2/3, pp. 344-401.

Dechow, P.M., Sloan, R.G. & Sweeney, A.P. 1996, 'Causes and Consequences of Earnings Manipulation: An Analysis of Firms Subject to Enforcement Actions by the SEC', *Contemporary Accounting Research*, vol. 13, no. 1, pp. 1-36.

DeFond, M.L. & Jiambalvo, J. 1991, 'Incidence and Circumstances of Accounting Errors', *Accounting Review*, vol. 66, no. 3, pp. 643-55.

Demerjian, P.R., Lev, B. & McVay, S. 2009, 'Quantifying managerial ability: a new measure and validity', *Working paper*.

Desai, H., Hogan, C.E. & Wilkins, M.S. 2006, 'The reputational penalty for aggressive accounting: Earnings restatements and management turnover', *The Accounting Review*, vol. 81, no. 1, pp. 83-112.

Doyle, J.T., Ge, W. & McVay, S. 2007, 'Accruals Quality and Internal Control over Financial Reporting', *Accounting Review*, vol. 82, no. 5, pp. 1141-70.

Ecker, F., Francis, J., Kim, I., Olsson, P.M. & Schipper, K. 2006, 'A Returns-Based Representation of Earnings Quality', *Accounting Review*, vol. 81, no. 4, pp. 749-80.

Elliott, J.A. & Philbrick, D.R. 1990, 'Accounting Changes and Earnings Predictability', *Accounting Review*, vol. 65, no. 1, pp. 157-74.

Fama, E.F. 1980, 'Agency problems and the theory of the firm', *Journal of Political Economy*, vol. 88, no. 2, pp. 288-307.

Fama, E.F. & Jensen, M.C. 1983, 'The separation of ownership and control', *Journal of Law & Economics*, vol. 26, pp. 301-25.

Fields, T.D., Lys, T.Z. & Vincent, L. 2001, 'Empirical research on accounting choice', *Journal of Accounting & Economics*, vol. 31, no. 1-3, pp. 255-307.

Francis, J., Dhananjay, N. & Olsson, P. 2008, 'Voluntary disclosure, earnings quality, and cost of capital', *Journal of Accounting Research*, vol. 46, no. 1, pp. 53-99.

Francis, J., Huang, A.H., Rajgopal, S. & Zang, A.Y. 2008, 'CEO reputation and earnings quality', *Contemporary Accounting Research*, vol. 25, no. 1, pp. 109-47.

Francis, J., LaFond, R., Olsson, P.M. & Schipper, K. 2004, 'Costs of Equity and Earnings Attributes', *Accounting Review*, vol. 79, no. 4, pp. 967-1010.

Ge, W., Matsumoto, D. & Zhang, J.L. 2008, 'Do CFOs have styles of their own? An empirical investigation of the effect of individual CFOs on financial reporting practices.', *Working paper*.

Geiger, M.A. & North, D.S. 2006, 'Does hiring a new CFO change things? An investigation of changes in discretionary accruals.', *The Accounting Review*, vol. 81 . no. (4), pp. 781-809.

Goodwin, J., Ahmed, K. & Heaney, R.A. 2007, 'The effects of international financial reporting standards on the accounts and accounting quality of Australian firms: A retrospective study', *Working paper*.

Graham, J.R., Harvey, C.R. & Rajgopal, S. 2005, 'The economic implications of corporate financial reporting', *Journal of Accounting and Economics*, vol. 40, pp. 3-73.

Graybow, M. 22 July 2009, 'Analysis: 'say on pay' rolls forward, but some investors wary.', *Reuters News*.

Hannan, R.L. 2005, 'The combined effect of wages and firm profit on employee effort', *The Accounting Review*, vol. 80, no. 1, pp. 167-88.

Healy, P.M. 1985, 'The effect of bonus schemes on accounting decisions', *Journal of Accounting and Economics*, vol. 7, no. 1-3, pp. 85-107.

Hennes, K.M., Leone, A.J. & Miller, B.P. 2008, 'The Importance of Distinguishing Errors from Irregularities in Restatement Research: The Case of Restatements and CEO/CFO Turnover', *Accounting Review*, vol. 83, no. 6, pp. 1487-519.

Hoitash, U., Hoitash, R. & Johnstone, K.M. 2009, 'Internal control weaknesses, CFO compensation, and the moderating effects of CFO characteristics and board of director strenghth. ', *Working paper.*

Holmstrom, B. 1979, 'Moral hazard and observability', *Bell Journal of Economics* vol. 10 no. 1, pp. 74-91.

ICAA 2005, *IFRS implementation and the story so far*, Grant Thornton.

Indjejikian, R. & Matejka, M. 2009, 'CFO fiduciary responsibilities and annual bonus incentives', *Journal of Accounting Research*, vol. 47, no. 4, pp. 1061-93.

Indjejikian, R.J. & Nanda, D. 2002, 'Executive target bonuses and what they imply about performance standards', *The Accounting Review*, vol. 77 no. 4, pp. 793-819.

Jensen, M.C. 1993, 'The modern industrial revolution, exit, and the failure of internal control systems', *The Journal of Finance*, vol. 48, no. 3, pp. 831-75.

Jensen, M.C., Murphy, K.J. & Wruck, E.G. 2004, 'Remuneration: where we've been, how we got here, what are the problems, and how to fix them', *Harvard NOM Working Paper no. 04-28, ECGI.*

Jiang, J., Petroni, K.R. & Wang, I.Y. 2008, 'CFOs and CEOs: who has the most influence on earnings management?', *Working Paper Michigan State University.*

Johnson, S. 25 August 2010, *IFRS north of the border*, CFO.com.

Jones, J.J. 1991, 'Earnings Management During Import Relief Investigations', *Journal of Accounting Research*, vol. 29, no. 2, pp. 193-228.

Kanagaretnam, K., Lobo, G.J. & Dong-Hoon, Y. 2004, 'Joint Tests of Signaling and Income Smoothing through Bank Loan Loss Provisions', *Contemporary Accounting Research*, vol. 21, no. 4, pp. 843-84.

Kolev, G.I. 2006, 'Pay for luck in CEO compensation: evidence of illusion of leadership', *Working Paper Universitat Pompeu Fabra.*

Lannin, S. 18 March 2009, 'New law to tackle corporate excesses', *Australian Broadcasting Coporation Transcript.*

Larcker, D.F., Richardson, S.A. & Tuna, I. 2007, 'Corporate governance, accounting outcomes, and organisational performance', *The Accounting Review*, vol. 82, no. 4, pp. 963-1008.

Larcker, D.F. & Rusticus, T.O. 2010, 'On the use of instrumental variables in accounting research', *Journal of Accounting & Economics*, vol. 49, no. 3, pp. 186-205.

Lengell, S. 11 June 2009, 'Geithner: Link executive pay to performance; legislation to empower shareholders', *The Washington Times.*

Leuz, C., Nanda, D. & Wysocki, P.D. 2003, 'Earnings management and investor protection: an international comparison', *Journal of Financial Economics*, vol. 69, no. 3, pp. 505-27.

Lev, B. 1983, 'Some economic determinants of time-series properties of earnings', *Journal of Accounting & Economics*, vol. 5, no. 1, pp. 31-48.

Li, C., Sun, L. & Ettredge, M. 2010, 'Financial executive qualifications, financial executive turnover, and adverse SOX 404 opinions', *Journal of Accounting and Economics*, vol. 50, no. 1, pp. 93-110.

Lipe, R. 1990, 'The Relation Between Stock Returns and Accounting Earnings Given Alternative Information', *Accounting Review*, vol. 65, no. 1, pp. 49-71.

Manne, H.G. 1965, 'Mergers and the market for corporate control', *Journal of Political Economy*, vol. 73, no. 2, pp. 110-21.

Martin, J. 18 June 2009, 'A long-term perspective may be the way to retain talent', *Financial Times*.

Mason, D. 4 November 2009, 'Why government control of bank salaries will hurt, not help the economy', *States News Service*.

Mayer, T. 1960, 'The distribution of ability and earnings. ', *The Review of Economics and Statistics* vol. 42 no. 2, pp. 189 - 95.

McNichols, M.F. 2002, 'DISCUSSION OF The Quality of Accruals and Earnings: The Role of Accrual Estimation Errors', *Accounting Review*, vol. 77, no. 4, p. 61.

Mergenthaler, R.D., Rajgopal, S. & Srinivasan, S. 2009, 'CEO and CFO Career Penalties to Missing Quarterly Analysts Forecasts', *Working Papers -- Harvard Business School Division of Research*, pp. 1-57.

Mian, S. 2001, 'On the choice and replacement of chief financial officers', *Journal of Financial Economics*, vol. 60, pp. 143-75.

Milbourn, T.T. 2003, 'CEO reputation and stock-based compensation.', *Journal of Financial Economics* vol. 68, pp. 233-62.

Murphy, K.J. 1985, 'Corporate performance and managerial remuneration. ', *Journal of Accounting and Economics* vol. 7, pp. 11-42.

Murphy, K.J. 1999, 'Executive compensation', *Handbook of Labor Economics*, vol. 3.

Palmrose, Z.-V. & Scholz, S. 2004, 'The Circumstances and Legal Consequences of Non-GAAP Reporting: Evidence from Restatements', *Contemporary Accounting Research*, vol. 21, no. 1, pp. 139-80.

Person, O.S. 2006, 'The effects of fraud and lawsuit revelation on U.S. executive turnover and compensation', *Journal of Business Ethics*, vol. 64, no. 4, pp. 405-19.

Raviv, A. 1985, 'Management compensation and the managerial labor market: An overview. ', *Journal of Accounting and Economics* vol. 7, pp. 239-45.

Richardson, S. 2003, 'Earnings Quality and Short Sellers', *Accounting Horizons*, vol. 17, pp. 49-61.

Rosen, S. 1981, 'The Economics of Superstars', *The American Economic Review*, pp. 845-58.

Rosen, S. 1982, 'Authority, control, and the distribution of earnings. ', *The Bell Journal of Economics* vol. 13 no. 2 pp. 311-23.

Schipper, K. 2010, 'Implementing accounting standards', *Working Paper*.

Schipper, K. & Vincent, L. 2003, 'Earnings Quality', *Accounting Horizons*, vol. 17, pp. 97-110.

Sloan, R.G. 1996, 'Do Stock Prices Fully Reflect Information in Accruals and Cash Flows About Future Earnings?', *Accounting Review*, vol. 71, no. 3, pp. 289-315.

Smith, C.W. & Watts, R.L. 1992, 'The investment opportunity set and corporate financiang, dividend, and compensation policies', *Journal of Financial Economics*, vol. 32, pp. 263-92.

Trueman, B. 1986, 'Why do managers voluntarily release earnings forecasts? ', *Journal of Accounting and Economics* vol. 8, pp. 53-71.

Vafeas, N. 2009, 'Is accounting education valued by the stock market? Evidence from corporate controller appointments. ', *Contemporary Accounting Research* vol. 26 no. 4, pp. 1143-74.

Wang, X.U.E. 2010, 'Increased Disclosure Requirements and Corporate Governance Decisions: Evidence from Chief Financial Officers in the Pre- and Post–Sarbanes-Oxley Periods', *Journal of Accounting Research*, vol. 48, no. 4, pp. 885-920.

Weber, J. & Willenborg, M. 2003, 'Do Expert Informational Intermediaries Add Value? Evidence from Auditors in Microcap Initial Public Offerings', *Journal of Accounting Research*, vol. 41, no. 4, pp. 681-720.

Weisbach, M.S. 1988, 'Outside directors and CEO turnover', *Journal of Financial Economics*, vol. 20, pp. 431-60.

Xie, H. 2001, 'The mispricing of abnormal accruals', *The Accounting Review*, vol. 76, pp. 357-73.

Yermack, D. 1996, 'Higher market valuation of companies with small board of directors', *Journal of Accounting and Economics*, vol. 40, pp. 185-211.

Zamora, V. 2009, 'Do managers benefit from superior forecasting?', *Working Paper Boston College*.