Effect of Dividend Law Changes and Fair Value Accounting on Dividend Policy: Evidence from Australia

by

Mithani, Safdar Razzak

Student ID - 43356389

Principal Supervisor **Dr Andreas Hellmann**

Associate Supervisor **Dr Charlene Chen**

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

Master of Research

Faculty of Business and Economics
Department of Accounting and Corporate Governance
Macquarie University
Sydney, Australia

October 2015

Declaration of Originality

I hereby certify that this thesis, entitled 'Effect of Dividend Law Changes and Fair Value Accounting on Dividend Policy: Evidence from Australia', is an outcome of my own research. It has not, nor any part of it, been submitted for a degree or diploma, or as a part of the requirements of a degree or diploma, to any university or institution other than Macquarie University.

I further certify that this thesis does not incorporate without acknowledgement any material previously submitted for a degree or diploma in any university; and that to the best of my knowledge and belief it does not contain any material previously published except where due reference is made in the text.

I also certify that any help and assistance I received during my research and in the preparation of this thesis have been duly acknowledged.

_____

Safdar Razzak Mithani
Student ID: 43356389
Date: October 09, 2015

Table of Contents

List of Tables

Acknowledgements

I am thankful to almighty ALLAH for providing me strength and ability to complete this thesis. I would like to express my gratitude to my principal supervisor, Dr. Andreas Hellmann, and associate supervisor, Dr. Charlene Chen, for all the time and effort they put in to help me complete this thesis. It is the untiring support of my supervisors, in providing comprehensive reviews, detailed critiques, and constructive feedbacks, that remarkably improved the quality of this thesis. It is their continuous encouragement and faith in my abilities that kept me agile and motivated for timely completion of this thesis. It has been a great pleasure working with both of my supervisors.

I am also thankful to Associate Professor Dr. Elaine Evans for her support and encouragement throughout my degree program and in completion of this thesis. My sincere thanks to Dr. Juliet Lum for arranging quality workshops that helped me complete this thesis. I also acknowledge that my thesis is edited by Elite Editing, and editorial intervention was restricted to Standards D and E of the Australian Standards for Editing Practice.

I thank Phanh Oudomlith in the library for identifying the appropriate database and helping me in data collection. I also thank Lin and Agnieszka in the FBE HDR administration for their support. Last but not the least; I would like to thank my immediate and extended family members for their continuous support and encouragement. Special thanks to my wife Kulsoom and my lovely daughters, Sarah and Zara, for allowing me to use their share of my time for completion of this thesis.

Abstract

This study examines the effect of fair value adjustments on firms' dividend distributions under two alternate dividend law settings, i.e. profit-test-based dividend law and net-assets-test-based dividend law. This is important because both firms' dividend policy and fair value adjustments have an association with reported earnings. The study contributes to the literature by combining two variables, namely dividend law and fair value adjustments, to examine firms' dividend policy. Specifically, this thesis hypothesises that, (1) positive fair value adjustments have no distribution consequences under profit-test-based dividend law; and (2) that such adjustments are distributed under net-assets-test-based dividend law. The study uses Fama and Babiak's (1968) variation of Lintner's (1956) model and a sample of 185 ASX-listed financial sector firms with 1,496 firm-year observations to test the two hypotheses. The sample period of nine financial years from 2005−06 to 2013−14 enables an analysis in both dividend law settings because Australia changed from profit-test-based dividend law to net-assets-test-based dividend law in July 2010. Under the profit-test-based dividend law, contrary to the expectations, the results show that positive fair value adjustments are distributed. Managers' inability to differentiate between persistent and transitory fair value adjustments amid non-consideration of transitory nature of fair value adjustments, while setting dividend policy, provide some explanation of the results. Under the net-assets-test-based dividend law, the study expects, but did not find any effect of positive fair value adjustments on firms' dividend payouts. Firms' preference to pursue conservative dividend policy and to attach dividend payouts with permanent earnings, provide some explanation of the findings. The results show that the statutory detachment of earnings and dividends under net-assets-test-based dividend law has not affected the conventional link between these two variables.

Keywords: Dividend Law, Dividend Policy, Fair Value Accounting

Chapter 1: Introduction

Dividend policy is one of the major decisions that firms need to make, as it involves direct cash flow implications for firms and investors (Brown et al., 2000; Ho, 2003). Additionally, the significance of dividend policy is not only confined to cash flows. A number of studies argue that dividend policy has a significant influence on firms' investment and financing decisions (Brav et al., 2005; Choi et al., 2012; Bremberger et al., 2013; Ramalingegowda et al., 2013).

Extant literature shows that dividend policy is considered a multifaceted reflector of firms' strategies and operations. Some studies show that dividend policy is a signal of future profitability and an indicator of available growth opportunities (Jensen et al., 1992; Fama and French, 2001), whereas some argue that it is a residue of investment and financing policies (Higgins, 1972; Baker and Smith, 2006), and others understand it as an outcome of investors' expectations and a cost of agency relationship (Rozeff, 1982; Jensen, 1986). One conventional way of understanding dividend policy is to study its association with reported earnings and assess the effect of different earnings components on firms' dividend payouts (Lintner, 1956; Fama and Babiak, 1968). From this conventional perspective, this thesis aims to investigate the effect of fair value adjustments, which is a component of reported earnings, on firms' dividend policy under two alternate dividend law settings.

Empirical research consistently finds an association between firms' reported earnings and their dividend policy (Lintner, 1956; Fama and Babiak, 1968; Deangelo et al., 1992; Goergen et al., 2005). A large segment of research identifies that firms pay out dividends from permanent earnings[1] components of their reported income (Kormendi and Zarowin, 1996; Jagannathan et al., 2000). Transitory earnings components, such as discontinued operations, may transiently boost or reduce the earnings in a particular period, but firms avoid making momentary changes in dividend payments and aim to maintain a persistent dividend policy (Lintner, 1956; Deangelo et

[1] Permanent (Core or Sustainable) earnings are income after excluding items (like discontinued operations) that are transitory in nature. Collins et al. (1999) proxy for core earnings with income before extraordinary items, discontinued operations, cumulative effects of accounting changes and tax-adjusted special items; while Goncharov and Van Triest (2011) proxy permanent earnings as earnings before fair value adjustments.

al., 2008). Some studies argue that, over a period of time, increasing transitory components in reported earnings, partly because of the changes in financial reporting standards, has weakened the link between permanent earnings and dividend payouts. The studies find that transitory earnings significantly affect a firm's dividend policy, especially when payouts are in the form of stock repurchases (Bagwell and Shoven, 1989; Grullon and Michaely, 2002; Skinner, 2008).

Fair value accounting is argued to integrate transitory earnings components into reported earnings that may not be indicative of changes in future cash flows (Penman, 2007). Fair value accounting is attributed to increased financial reporting volatility (Plantin et al., 2008), and it is argued to impair firm managers' ability to discern permanent and transitory earnings (Cornett et al., 1996). As a result, some studies argue that firms may deliberately or inadvertently distribute unrealized (upward) fair value adjustments via dividends or stock repurchases, especially during periods of economic growth (Boyer, 2007; Caruana and Pazarbasioglu, 2008), although other studies show that empirical evidence in this regard is conflicting and inconclusive (Beatty, 2007; Goncharov and Van Triest, 2011). Recent studies examining the Russian (Goncharov and Van Triest, 2011) and South African (De Jager, 2014) contexts present conflicting evidence of the association between positive fair value adjustments and firms' dividend payouts, adding further complexity to the role of fair value accounting in dividend payouts. The limited and conflicting evidence of the role of fair value accounting in firms' dividend policy motivates this thesis to investigate this topic.

Dividend law is another factor that influences firms' dividend policy. Dividend law as an institution[2] determines distributable resources that firms can legalistically distribute to their shareholders. Breach of the dividend law results in criminal proceedings against the board of directors, and the distributed amount in breach of law is required to be returned to the firm. Many jurisdictions, including the United Kingdom (UK), Germany, Brazil and Russia, mandate the distribution of dividends from reported earnings, thereby establishing a legal link between earnings and dividends.

[2] Institutions are mechanisms that facilitate efficient exchanges and interactions between economic players (Olson, 1965; Williamson, 1975). According to North (1990), institutions are 'humanly devised constraints that shape human interaction' and provide the 'rules of the game in society' where the actions of players (organizations, individuals) are governed by rules (institutions).

Prior literature provides mixed evidence of the effect of changes in dividend law on firms' dividend policy. Ho (2003) reports that the introduction of the dividend imputation law [3] in Australia brought major changes to Australian firms' dividend policy in the form of higher payouts and increased dividend reinvestment plans. In contrast, Coulton and Ruddock (2011) find that, despite the relaxation of shares buyback regulations in Australia, cash dividend is still the most common method of Australian firms' payout to their shareholders. A similar type of relaxation in share repurchase regulations in the US significantly altered the US firms' payout policy, and stock repurchases have become an equally important alternative to cash dividends for distribution to shareholders (Dittmar and Dittmar, 2002; Skinner, 2008).

Evidence of the role of fair value accounting in firms' dividend payouts is scant and far from being conclusive. Few studies, such as those by Goncharov and Van Triest (2011), Kochiyama (2011) and De Jager (2014), focus on analysing the role and effect of fair value accounting on firms' dividend policy; however, they report conflicting results. Further, prior research does not provide evidence of the effect of dividend law change on firms' dividend policy that results in the replacement of the traditional 'profit test' with a three-fold test concerning 'net assets, solvency, and fairness'.[4] The introduction of this new genre of net-assets-test-based dividend law in Australia raises two questions. First, will firms continue to differentiate permanent and transitory earnings, especially in relation to fair value measurements? Second, will permanent earnings remain as the key determinant of the dividend payouts? These unanswered questions provide another major impetus to this thesis.

To investigate the role of fair value accounting on firms' dividend policy under two alternate legal systems, this thesis uses the Australian setting because of its unique and more generalisable characteristics. Australia adopted the International Financial Reporting Standards

[3] Under the dividend imputation tax system, tax paid by a company is attributed to shareholders by way of tax credit. This corporate tax system eliminates or minimises double taxation effects on dividend distribution.

[4] The 'profit test' requires that dividends can only be paid out of company 'profits'. Profit is determined in accordance with accounting policies and practices, which, for statutory purposes, may also be influenced by common law interpretations (Anderson et al., 2012a). The 'three-fold test' prohibits dividend distribution unless a company has: (1) positive net assets (i.e., assets exceed liabilities) immediately before dividend declaration, (2) the excess is sufficient for dividend payment and (3) the dividend payment is reasonably fair and does not materially prejudice the interest of creditors (i.e., affects the company's ability to pay its creditors) (Cavanough, 2011; Anderson et al., 2012b).

(IFRS) [5] in 2005, and in 2010, the country introduced a new genre of dividend law, replacing the traditional profit test for dividends with a three-fold test concerning 'net assets, solvency, and fairness'. Within these contemporary features of the Australian environment, this thesis uses Fama and Babiak's (1968) variation of Lintner's (1956) framework to analyse the association of positive fair value adjustments of financial instruments that are reported into income statements with firms' dividend payouts. The sample includes 185 financial sector firms listed on the Australian Securities Exchange (ASX). The sample period of 9 years, from 2005−06 to 2013−14, enables the analysis of the effect of fair value changes on dividend distributions under both profit-test-based and net-assets-test-based dividend laws.

This thesis extends the literature in three distinct aspects. First, the sample includes firms from the entire financial sector, including banks, insurance firms, investment funds, real estate investment trusts and other diversified financial entities that operate within this sector. The firms in this sector have the largest amount of financial instruments on their financial statements, and more importantly, the financial sector is extremely sensitive to accounting rules (Hoogervorst, 2013). Prior studies either focus only on major listed banks or included listed firms from a range of sectors such as construction, transportation, mining and oil, and services including banks (Goncharov and Van Triest, 2011; De Jager, 2014). Second, this thesis investigates the effect of fair value adjustments of all financial instruments, including both financial assets and financial liabilities that are reported in income statement, on dividend policy, whereas prior studies only focus on fair value adjustments of financial assets. Prior literature identifies the failure in matching changes in the fair value of assets with negatively correlated changes in the fair value of liabilities as one of the major reasons for increased volatility under the fair value accounting system (Penman, 2007; Plantin et al., 2008). Therefore, IFRS require firms to recognise fair value adjustments of certain financial liabilities in income statement to avoid exaggerated volatility in income numbers. Accordingly, the inclusion of fair value adjustments of liabilities in this thesis provides a more realistic assessment of the actual volatility faced by firms, and it also adds potency to the analysis and findings. Finally, this thesis investigates the effect of fair value accounting on dividend payouts under two alternate dividend law systems − profit-test-based

[5] IFRS are issued by the International Accounting Standards Board (IASB). They incorporate all International Accounting Standards (IAS) that were issued by the International Accounting Standards Committee (IASC: the predecessor body of the IASB) and are not yet repealed.

dividend law and net-assets-tests-based dividend law − whereas prior studies investigate the effect of fair value adjustments on dividend policy only under one type of dividend law. Analysis under two alternate dividend laws allows this thesis to not only study the role of fair value adjustments in firms' dividend payouts, but it also provides a unique opportunity to examine the effect of dividend law change on firms' assessment of permanent and transitory earnings components, and to determine of the role of each component in relation to dividend decision.

The remainder of this thesis is structured as follows. Chapter 2 establishes the theoretical framework of this thesis by discussing the association between earnings' persistence and dividend payouts. Chapter 3 presents a literature review and then establishes the hypotheses of this thesis along with their rationale. Chapter 4 discusses the data sample and outlines the research methods employed in this thesis. Chapter 5 provides descriptive statistics for the data sample, presents the results of the quantitative models, and discusses the implications of the results and findings. Chapter 6 concludes this thesis, discusses the study's limitations and identifies possible directions for future research.

Chapter 2: Theoretical Framework

This chapter elaborates the underlying theoretical framework used in this thesis to analyse the impact of fair value adjustments on firms' dividend policy under two alternate dividend laws. The chapter proceeds with a discussion of Lintner's (1956) model and Fama and Babiak's (1968) variation of this model. Both of these studies provide foundational work on the association between earnings persistence and dividend payouts, and for the development of the quantitative models established in Chapter 4 of this thesis. This chapter also discusses prior empirical research that uses Lintner's (1956) model or its variation and it further unfolds the relationship between firms' earnings and their dividend policy.

Lintner's (1956) model is the first widely acknowledged behavioural model[6] that explains corporate dividend policy. The model suggests that the current year's dividend is a function of the current year's earnings, last year's dividend and a constant that measures managers' degree of reluctance to reduce rather than raise the dividend. Lintner (1956) argues that most managers pursue conservative dividend policy and focus on attaining a predetermined long-term dividend payout ratio. Managers show more concern for changes in dividends (in relation to prior period distributions) than absolute levels of current year dividends. They aim to move steadily towards a long-term target dividend level and are reluctant to make momentary changes in dividend payments. Therefore, firms attach dividends with permanent earnings, and the change in dividend in any given year reflects only part of the amount of changes in such earnings, showing a phenomenon of partial adjustments.

The aim of Lintner's (1956) study was to investigate the factors that determine firms' dividend policy, which, at that time, was largely an unexplored domain. Lintner (1956) initially reviews more than 600 US listed firms and includes 28 industrial firms in his final sample. The sample firms were purposely selected to ensure the inclusion of firms with diversified characteristics such as firm size, growth, financing mix, earnings, dividend payouts and liquidity. The data were collected from publically available annual reports for a period of 7 years from 1947 to 1953, totalling 196 firm-year observations. Further, Lintner (1956) also interviews key

[6] Dividend behaviour models imply that the current dividend is a function of current and past earnings.

officers from the majority of the sample firms to gather additional qualitative information about firms' dividend policy.

Importantly, Lintner's (1956) study provides the initial empirical evidence of the association between reported earnings and dividend payouts in explaining firms' dividend payouts. His partial adjustment dividend smoothing model identifies corporate earnings as a primary determinant of the dividend decision.

Fama and Babiak's (1968) study is instrumental in establishing the relevance and validity of Lintner's (1956) model. Their study focuses on understanding the determinants of dividend policy at an individual firm level. They tests Lintner's (1956) model along with two alternatively argued variables − namely, cash flows and net income plus depreciation − as measures of firms' profitability and ultimately as determinants of dividend payouts. Their sample includes 392 major US industrial firms over a period of 19 years from 1946 to 1964. They find that, as suggested by Lintner, net income (after tax) is a better measure of firm's profitability than cash flow or net income plus depreciation. They further report that Lintner's (1956) model is reliable and valid in explaining dividend policy at the individual firm level. However, they observe that replacing the 'constant' that measures the degree of managerial reluctance to cut dividends with lagged earnings increases the predictive power of the Lintner's (1956) model. Accordingly, Fama and Babiak (1968) introduce a variation of Lintner's (1956) model and operationalise change in the current period's dividend as a function of the current year's earnings, lagged dividend and lagged earnings.

In regard to the relevance to the subject matter of this thesis, Goncharov and Van Triest (2011) and then De Jager (2014)[7] use Fama and Babiak's (1968) variation of the Lintner's (1956) model to investigate the role of fair value accounting in firms' dividend policy. It is therefore imperative for this thesis to use the same model to ensure consistency and comparability. Accordingly, this thesis uses Fama and Babiak's (1968) variation of Lintner's (1956) model to analyse the effect of fair value adjustments as transitory earnings on firms' dividend policy under two alternate dividend law settings. The actual construct of the models used is detailed in Chapter 4.

[7] The study of Goncharov and Van Triest (2011) and that of De Jager (2014) are discussed in detail in chapter 3.

Many researchers have used and tested Lintner's (1956) model or its variation from a variety of perspectives to understand firms' dividend policy, further adding to their relevance, reliability and validity. To reaffirm the validity of the model and that of Fama and Babiak's (1968) variation, the remainder of this chapter discusses a few studies that have used Lintner's (1956) model or its variation.

Deangelo et al. (1992) test Lintner's (1956) arguments about managers' reluctance to reduce dividends and find confirmatory evidence of the Lintner (1956) model. Their sample consists of two groups of firms: 'loss-making group', with 167 New York Stock Exchange (NYSE)-listed firms with at least one annual loss during 1980−1985; and 'non-loss-making group', with 440 NYSE-listed firms with no losses during the same period. Both groups of firms have at least 10 years' history of profits and dividend payouts. Their results show that only 1 percent of 440 non-loss firms cut dividends during the study period of 6 years, and only one firm omitted dividends during this period. Conversely, 85 out of 167 loss-making firms reduced their dividends in the initial loss year, while 25 firms out of 167 omitted dividends in their initial loss year. Deangelo et al. (1992) note that almost 50 percent of the loss-making firms did not reduce dividends even while suffering losses; this suggests that an annual loss is a necessary but not sufficient condition for reduced dividend payouts in well-established firms that have a strong history of positive earnings and dividend distributions.

A number of other studies provide further evidence that firms rarely reduce their regular dividends, and when they do, it is almost always associated with their financial difficulties. Christie (1990) investigates the relationship between dividend yield and equity returns during the period 1926−1985 and reports that NYSE-listed firms significantly reduced dividends during the Great Depression of 1930s. Deangelo and Deangelo (1990) find that 78 out of 80 NYSE-listed firms suffering continued losses during 1980−1985 reduced their dividend, and ultimately, 66 omitted dividends during subsequent periods. These findings suggest that firms are more likely to aggressively reduce dividends in times of financial trouble than increase dividends in a period of growing profits. Healy and Palepu (1990) study US industrial firms that experienced a sharp increase in the tightness of their dividend constraint during 1981−1985. They find that firms reduce their dividend in response to the tightening of debt covenants, and they do not change

their accounting practices to avoid the imposition of covenants. They further find that the magnitude of dividend reduction is proportionate to the tightness of the dividend constraint.

Importantly, in the US until the late 1950s and early 1960s, special dividend distributions (SDDs) were a common feature. In addition to regular annual dividend payouts, SDDs involve extra or 'bonus' payouts as and when the company requires. SDDs were usually regarded as a vehicle for transitory cash payouts. Subsequently, especially in the early 1980s, stock repurchases somewhat took over the role as the primary means of transitory distributions. Stock repurchases were virtually non-existent when Lintner (1956) and Fama and Babiak (1968) wrote their papers; therefore, they did not incorporate stock repurchases in their analysis and models (Deangelo et al., 2008).

From the aforesaid perspective, Bagwell and Shoven (1989) investigate dividend payouts and stock repurchases of 2,445 US firms from diversified sectors during 1977−1987. They argue that share repurchases as a substitution of dividends (especially SDDs) indicate firms' willingness to benefit their shareholders with lower-taxed capital gains rather than high-taxed dividends. However, subsequent research fails to substantiate this argument with evidence providing mixed results. Using the data of NYSE-listed firms during 1927−1995 Deangelo et al. (2000) argue that SDDs were not replaced by stock repurchases; rather, small SDDs disappeared because of their perceived substitution by shareholders for regular dividends, while large SDDs continued because their magnitude differentiated them from regular payouts.

Fama and French (2001) report that the proportion of publically traded firms paying dividends in the US fell from 66.5 percent in 1978 to 20.8 percent in 1999. They find that dividend decision is affected by profitability, investment or growth opportunities, and firm size. Their research finds a positive association between firms' profitability and the probability of dividend payouts, providing further evidence that substantiates the validity of the Lintner (1956) model. Fama and French (2001) show that larger and more profitable firms, excluding those with more investment opportunities, tend to pay higher dividends, while firms with more growth opportunities maintain low payout ratios. The results also suggest that the declining trend of dividends can partly be attributed to the increasing number of a new breed of listed entities with a different nature and distinctive characteristics from their mature and larger predecessors −

namely, those of a small size and with strong investment opportunities but lower earnings, and investors are willing to hold shares of these firms. Another key finding from Fama and French (2001), known as 'disappearing dividends', reveals that even though aggregate real dividends have grown over time, firms generally tend to distribute a lower proportion of their earnings as dividends.

Goergen et al. (2005) study 221 listed German industrial and commercial firms during 1984−1993 in regard to their decision to change dividend payouts. Consistent with Lintner (1956), they find that a reduction in net earnings is a major factor in the decline in dividends. Goergen et al. (2005) also suggest that the occurrence of loss is another key factor in explaining the decision to reduce dividends, reporting that 91.6 percent of German firms cut dividends when suffering loss, whereas only 14.3 percent reduce dividends when reporting positive net income. Overall, the results from Goergen et al. (2005) suggest that German firms reduce or omit dividends on a temporary basis; this feature contrasts with the findings reported by Deangelo et al. (1992) in relation to US firms. Goergen et al. (2005) further report that firms with a bank as their major shareholder show more willingness to omit dividends than firms that are controlled by other shareholders. Andres et al. (2009) find that replacing earnings with cash flows in the Lintner (1956) model provides a better explanation of German firms' dividend decisions. Their sample includes 220 industrial and commercial firms listed on at least one of the German Stock Exchanges during 1984 − 2005 and yields 3,932 firm-year observations.

Brav et al. (2005) conduct a survey- and interview-based study to revisit corporate dividend policy and assess the relevance and validity of dividend theories. They survey and interview financial executives of both public and private firms to learn how firms determine their dividend and share repurchase policies. They survey 384 financial executives in the US, including 256 from public firms and 128 from private firms, and they interview 23 top executives (Chief Financial Officers, Treasurers and Chief Executive Officers). One of their key findings affirms Lintner's (1956) argument that managers of dividend-paying firms highly prioritise the continuity of dividend payouts and are strongly reluctant to cut dividends. Once the dividend per share is maintained, the payout policy becomes a second-order concern; that is, it is given importance only after all of the firm's investment and liquidity needs are met. Brav et al.'s (2005) study also shows that the Lintner's (1956) argument of managers' tendency to focus on

attaining a long-term target payout ratio is losing its relevance in formation of dividend policy: the number of firms that focus on attaining a long-term payout ratio has significantly declined. Further, more recently, firms have typically exhibited a slower speed of adjustment towards their target payout ratio than those observed by Fama and Babiak (1968). Finally, Brav et al. (2005) suggest that two factors − a sustainable increase in earnings and demand by the institutional investors − may force non-paying firms to initiate dividend distributions, and when they do, they prefer to use stock repurchases rather than cash dividends.

In summary, the literature shows that Lintner's (1956) model is the most recognised dividend behaviour model that identifies the association between reported earnings and firms' dividend policy. Lintner (1956) considers reported earnings a primary determinant of the firms' dividend policy. Fama and Babiak's (1968) improvement to Lintner's (1956) model, which replaces the 'constant' that measures the degree of managerial reluctance to cut dividends with lagged earnings, further enhances the predictive power of Lintner's (1956) model. Despite the arguments that a few aspects of Lintner's (1956) model may have lost their vigour in the changing corporate world (Skinner, 2008), a large segment of the literature provides sufficient evidence regarding the validity of the major aspects of the Lintner's (1956) model in the current corporate world (Deangelo et al., 1992; Jagannathan et al., 2000; Goergen et al., 2005; Deangelo et al., 2008).

Lintner's (1956) model provides a well-recognised method of measuring the association between different earnings' components and firms' dividend payouts. Goncharov and Van Triest (2011) and then De Jager (2014) use Fama and Babiak's (1968) variation of the Lintner's (1956) model to examine the effect of fair value adjustments on firms' dividend payouts. Accordingly, this thesis also uses the same model to investigate the association between fair value adjustments and firms' dividend policy under alternate dividend laws to ensure the validity, reliability and consistency of the models with prior studies.

Chapter 3: Literature Review and Hypothesis Development

This thesis aims to investigate the association between fair value adjustments that are reported on income statements and firms' dividend payouts under two alternate dividend laws. As one of the earnings components, fair value adjustments are one of the variables that may affect firms' dividend payouts. The role of this variable in firms' dividend policy depends on three important aspects: first, the association between earnings persistence and dividends; second, the relationship of permanent and transitory earnings components with dividend payouts; and third, understanding the role of fair value adjustments as transitory earnings components. Chapter 2 discussed the association between earnings persistence and dividends, and the remaining two aspects are discussed in Section 3.1 and 3.2 respectively.

Dividend law is another factor that influences firms' dividend policy. The effect of this factor also depends on three aspects: dividend law requirements or the changes in them, reasons for introducing changes in dividend law, and understanding firms' responses to past changes in dividend law. Section 3.3 examines these aspects by first enumerating the change in dividend law introduced in Australia in 2010, along with the reasons the change. It then focuses on a discussion of empirical research that studies the effect of changes in dividend law on firms' dividend payouts. Finally, Section 3.4 establishes the hypotheses of this thesis, along with their rationale and significance.

3.1 Permanent and Transitory Earnings and Dividends

Lintner (1956) was the first to argue that firms avoid momentary changes in dividend payouts and prefer to maintain a steady stream of dividends based on stable earnings. Lintner (1956) argues that firms' preference to pursue conservative dividend policy results in the distribution of permanent earnings components only and not transitory earnings components (Jagannathan et al., 2000). This aspect of Lintner's (1956) earnings persistence framework is rigorously tested in many research studies, as it has a significant influence on the magnitude of firms' dividend payouts. This section discusses a few of the studies that focus on the association between permanent and transitory earnings and firms' dividend policy.

Kormendi and Zarowin (1996) examine the role of permanent earnings in firms' dividend payouts. Their sample consists of 337 US firms over a 40-year period from 1950 to 1989. They find a strong association between dividend payouts and permanent earnings, implying that transitory earnings have little or no effect on dividend payments. However, in contrast to Lintner's (1956) model, they argue that in addition to permanent earnings, factors such as tax policy and transaction costs may have a considerable influence on firms' dividend policy. Deangelo et al. (1992) report confirmatory evidence of Lintner's (1956) model, finding that transitory earnings components do not lead to increases or decreases in dividends. They also find that one-off accounting write-offs, such as a loss in regard to discontinued operations, do not result in a reduction in firms' payouts.

Using the stock repurchase data of US industrial firms between 1985 and 1996, Jagannathan et al. (2000) find that firms with higher permanent operating cash flows distribute annual dividends, while firms with higher temporary non-operating cash flows use stock repurchases for distributions to shareholders. Their results reflect a strong association between dividend changes and the proxy for permanent earnings components, but not with the proxy for transitory earnings components.

Dittmar and Dittmar (2002) study the dividend payout patterns of US firms during 1984−2000. They partly attribute the significant increase in share repurchases to regulatory changes. They argue that the increase in stock repurchases is associated with an increase in both permanent and transitory earnings, whereas the change in cash dividend payouts is only associated with changes in permanent earnings. They further argue that transitory earnings play a primary role in choosing between stock repurchases and cash dividend payouts. Their findings show that cash dividends and stock repurchases are substitutes for the distribution of permanent earnings, while stock repurchases alone are used as a vehicle for distributing transitory earnings.

Grullon and Michaely (2002) study the dividend payout patterns of US firms during 1972−2000. Their sample includes 15,843 US firms and 134,646 firm-year observations. Their findings show that firms' stock repurchases in the US, have become an important method of cash distributions − especially since the mid-1980s, and that firms now use permanent earnings to finance stock repurchases that otherwise could be used for cash dividend payouts. Grullon and

Michaely (2002) affirm Lintner's (1956) argument of managers' reluctance to cut dividends. They suggest that managers tend to prefer distributing cash through repurchases, and they provide evidence of firms' aggressive behaviour towards stock repurchases in the US after the 1983 relaxation of regulatory constraints that traditionally restrained repurchases.

Skinner (2008) applies Lintner's (1956) model to US firms' total payouts − including cash dividends and stock repurchases − during 1980−2004 to analyse how the relationship between earnings components and dividend payouts has evolved over time. He finds that firms that only pay dividends are largely extinct and that stock repurchases have become a permanent and dominant feature of firms' payout policies. Further, the timing and magnitude of stock repurchases respond more quickly to changes in total earnings than cash dividend payouts. Consistent with Brav et al. (2005), Skinner (2008) concludes that the relationship between dividends, excluding stock repurchases, and earnings has eroded over time. He shows that the association between permanent earnings and cash dividend payouts has weakened because of the increasing role of discretionary earnings components in reported earnings.

In summary, the findings of the studies discussed above, with the exception of Skinner (2008), validate part of Lintner's (1956) argument that firms make a distinction between permanent and transitory earnings components. In relation to the distribution of permanent and transitory earnings components, evidence shows that Lintner's (1956) argument about the distribution of only permanent earnings components is not fully supported, whereas Skinner (2008) reports contradictory results and maintains that the distinction between permanent and transitory earnings components is becoming less important to firms.

3.2 Transitory Earnings and Fair Value Accounting

The preceding section discussed prior literature that focuses on the role of permanent and transitory earnings components in firms' dividend payouts. This section initially focuses on the literature that discusses fair value adjustments as one of the transitory earnings components, and then briefly refers to literature that discusses the economic consequences of adopting fair value accounting. This section concludes with a discussion of the research that studies the effect of fair value accounting on firms' dividend policy.

Fair value accounting is often credited with increased transparency in external reporting (Landsman, 2007), and better-informed decisions by stakeholders (Barth, 2006), mainly due to the inclusion of externally determined values in financial statements and the exclusion of managerial discretion. However, it is simultaneously identified as the source of increased volatility in financial reporting (Plantin et al., 2008), and it is argued to bring transitory elements into reported earnings that may not be indicative of changes in future cash flows (Penman, 2007).

Barth and Landsman (1995) analyse fundamental issues relating to fair value accounting in financial reporting and argue that, when assets trade in a perfect and competitive market, fair value accounting balance sheets provide all value-relevant information, and as a result, income statements become redundant and the realisation of income is also not value-relevant. They further suggest that investment companies may come close to this characterisation but others may not. However, where fair value is determined in an ambiguous market, such as for real estate firms, the valuation model and its estimation become dubious, and both the balance sheet and the income statement cannot reflect all value-relevant information. In such situations, income realisation may become valuation-relevant, though management discretion may result in some detraction from its relevance. More recently, Hitz (2007) studied the decision usefulness of fair value accounting from both the measurement and information perspectives. His study shows that, despite weaknesses in the conceptual case, the decision usefulness of fair value accounting is justifiable from both perspectives. However, Hitz (2007) highlights the need for improvement in fair value income statement concepts. Hitz (2007) further identifies that the relevance of the fair value measurement can only be supported for securities traded on highly liquid markets, while the reliability objection arises for the rest of the assets.

Plantin et al. (2008) present an analytical model that compares conditions (specifically, short-lived/long-lived assets, liquid/illiquid assets and junior/senior assets) under which the historical cost accounting system reports fewer inefficiencies than the fair value accounting system. Plantin et al. (2008) criticise fair value accounting for its tendency to bring excessive volatility into financial reports when markets become illiquid and market prices are volatile, as such volatility may not appropriately reflect the underlying economic fundamentals and may distort managerial decisions. Similar conclusions emerge from many other studies. For example, Cornett et al. (1996) and Hung and Subramanyam (2007) conclude that the mark-to-market

accounting brings additional volatility and transitory elements into income statements, impairing the ability of managers and investors to discern transitory earnings with the long-run aspects of earnings. Boyer (2007), Caruana and Pazarbasioglu (2008) and Vinals (2008) argue that, in growth periods, upwards fair value adjustments may encourage the distribution of unrealised gains and, in turn, intensify fluctuations in the financial system by increasing leverage. This is particularly true when fair value accounting is applied to long-term operating assets or to those that are held until maturity with no intention of realising them into cash in the near future. For these assets, fair value accounting may not necessarily result in actual cash flows and may only reflect interim price fluctuations.

While summarising the arguments and findings of the above studies, it emerges that under competitive, liquid and stable market conditions, fair value accounting provides relevant and useful information for decision making. However, when the market is illiquid and prices are volatile, even for a particular asset, fair value accounting brings excessive and unrealistic volatility into financial statements that may not represent the true economic reality. Fair value adjustments that are transitory in nature may not be distinguished from those that are persistent; accordingly, positive fair value adjustments may be distributed, especially during the economic growth periods.

In regard to the economic consequences of the adoption of fair value accounting, many studies focus on understanding the role of fair value accounting in managerial decision making in an indirect manner by analysing the changes in firms' economic behaviour subsequent to the introduction of fair value accounting (Beatty, 1995; Zhang, 2009; Chen et al., 2013)[8]. Beatty

[8] Beatty (1995) shows that the enforcement of Statement of Financial Accounting Standards (SFAS) Number 115 by the Financial Accounting Standards Board (FASB) of the US, which requires fair value reporting of only one specific class of investment securities, adversely affected the investment management behaviour of US financial institutions. The SFAS 15 artificially increased volatility in equity primarily by ignoring concurrent value changes in other financial assets and liabilities.

Zhang (2009) finds that the implementation of SFAS 133, which governs the accounting treatment of derivative instruments and hedging activities, positively influenced the corporate risk-management behaviour of US firms. SFAS 133 mandates the recognition of fair value adjustments of all derivatives into income statements with different requirements for derivatives that are identified as effective hedge instruments.

Chen et al. (2013) use an experimental setting and find that the combined economic and fair value accounting information relating to external reporting adversely affects managers' economic decision making in a manner that they make suboptimal decisions and do not opt for economically sound hedging opportunities. However, where economic information is made prominent and disclosed separately from fair value accounting information, the adverse effect of fair value accounting is reduced.

(2007) asserts that the accounting measurement change from historical cost to fair value accounting has economic consequences that result in changes in firms' economic behaviour. Her research accumulates evidence from other studies and shows the effect of accounting (measurement) change on firms' operational and financing decisions. The evidence shows that accounting change leads to better economic decisions at times, while at other times it may take firms into a worse position. More recently, few studies have focused directly on analysing the role and effect of fair value accounting in firms' dividend policy decisions (Goncharov and Van Triest, 2011; De Jager, 2014).

Goncharov and Van Triest (2011) and De Jager (2014) examine the effect of fair value adjustments on firms' dividend payouts. Goncharov and Van Triest (2011) investigate the effect of positive mark-to-market adjustments on the dividend policy of listed Russian firms in compliance with Russian accounting standards during 2003−2006. The sample includes 1,179 listed Russian firms with 4,424 firm-year observations. They authors use Fama and Babiak's (1968) variation of Lintner's (1956) framework to establish a link between dividends and various earnings components. Consistent with Penman (2007) and Plantin et al. (2008), Goncharov and Van Triest (2011) consider positive mark-to-market adjustments transitory in nature and hypothesise that positive fair value adjustments have no distribution consequences. Their findings from their study show that positive mark-to-market adjustments are associated with relatively lower dividend payouts. This conclusion challenges the presumption about the procyclical effect of positive fair value adjustments on dividend payouts during periods of economic growth (Vinals, 2008). Recently, De Jager (2014) replicated the study of Goncharov and Van Triest (2011) in the banking sector of South Africa during 2004−2008, with IFRS being the underlying financial reporting standards. De Jager (2014) finds evidence contradicting that of Goncharov and Van Triest (2011) and reports that South African banks distribute dividends from unrealised transitory gains that are recognised from upwards fair value adjustments. This conflicting evidence adds further complexity to the limited evidence in this respect.

In summary, fair value accounting literature shows that, despite the claimed benefits and its increasing role in financial reporting standards, fair value accounting remains a contentious issue (Cornett et al., 1996; Caruana and Pazarbasioglu, 2008; Plantin et al., 2008). The adoption of fair value accounting affects firms' economic decisions including dividend payout decision

(Beatty, 2007), and this is where this thesis establishes its justification. Prior studies often find fair values of assets to be value-relevant for end users, but the reliability is conditional upon the financial environment and the method of fair value determination (Barth and Landsman, 1995; Hitz, 2007). The literature also shows that fair value accounting can introduce significant volatility into reported earnings, especially where fair values of selective assets are recognised; however, corresponding variations in other assets and liabilities that may neutralise such variations are not recognised (Beatty, 1995; Zhang, 2009). The role of transitory fair value adjustments in firms' dividend decisions is analysed by few studies, and the findings of these studies are contradictory and far from conclusive (Goncharov and Van Triest, 2011; De Jager, 2014).

3.3 Dividend Law and Dividend Payouts

The preceding two sections, along with Chapter 2, discussed the role of fair value adjustments as one of the factors that influence firms' dividend payouts. This section discusses the role of dividend law as another factor that influences firms' dividend payouts. It first details of the changes in Australian dividend law that were introduced in July 2010, and then discusses the reasons and likely effects of such changes on Australian firms' dividend payouts. Finally it focuses on prior literature that provides empirical evidence of the effect of changes in dividend law on firms' dividend payouts.

In 2010, an amendment in section 254T of the Corporation Act 2001 introduced a new genre of dividend law in Australia. The traditional 'profit test' for dividend distribution was replaced by a three-fold test concerning 'net assets, fairness and solvency'. The new law prohibits firms from paying dividends unless:

- the company's assets exceed its liabilities immediately before the dividend is declared and the excess is sufficient for the payment of the dividend (the net assets test); and
- the payment of the dividend is fair and reasonable to the company's shareholders as a whole (fairness test); and
- the payment of the dividend does not materially prejudice the company's ability to pay its creditors (solvency test).

It was further clarified that the net assets test requires the measurement of firms' assets and liabilities in accordance with the applicable accounting standards (in the case of Australia, this effectively means the IFRS).

The need for a new dividend law was long advocated by many critics of the pre-2010 profit-test-based dividend law for multiple reasons, including that of ambiguity in the definition of 'profit', the discretionary power of management to manipulate reported profits and, more importantly, the inability of the profit-test-based dividends law to protect creditors' interests (Routledge and Slade, 2003; Ewang, 2007). However, the reasons the regulator provides for the change include three key aspects (Alexander et al., 2010). First, the absence of a unified or widely agreed definition of 'profits' had been problematic, and this was further aggravated by the divergence between legal precedents and accounting standards regarding the definition. Second, after the adoption of IFRS in Australia, it was argued that the increasing role of fair value adjustments often resulted in the volatility of profits to such an extent that otherwise profitable companies were unable to pay dividends despite the availability of cash, because their profits are eliminated by non-cash fair value adjustments. Finally, it was further argued that the 'capital maintenance doctrine' that underpins profit-test-based divided law had become increasingly irrelevant over the past two to three decades. A number of company law changes, such as allowing share buybacks and reducing share capital without court approval have been made over time. These changes have diminished the scope of the capital maintenance doctrine and necessitated the introduction of a new dividend law in line with the new trend.

However, the new law has its own criticism. The inclusion of a 'fairness test' has been identified as an unnecessary additional requirement, and it is argued to have been copied from the provisions of share capital reductions (Alexander et al., 2010). The determination of 'net assets' in accordance with IFRS may be particularly difficult for smaller firms and may require the incurrence of additional costs before being able to make a decision on dividend distribution (Lambeth and Mock, 2014). Practitioners argue that clarification is required regarding the availability of any accounting profits for dividend distribution (Cavanough, 2011), because in the absence of any profits, dividend distribution may result in payouts from the contributed capital, which in turn may mean capital reduction, which is dealt with separately in corporate law. In

April 2014, the regulator proposed an amendment to the 2010 dividend law to resolve some of these concerns. [9]

The new dividend law has resulted in fundamental changes not only to dividend payout rules, but also indirectly to capital maintenance provisions. Compared to countries such as France, Germany, India, the UK and the US, Australian corporate laws have always offered greater protection to both shareholders and creditors, although creditor protection did not witness a sustained upwards trend, as was the case with shareholder protection (Anderson et al., 2012a). The effect of the changed dividend law is expected to be twofold. First, the new law may facilitate firms that do not have accounting profits to be able to pay dividends, such as start-up firms and those whose profits may have been adversely affected by non-cash expenses such as unrealised fair value adjustments. Second, firms that have profits but a deficiency in net assets will not be able to pay dividends. Another important implication of the new dividend law relates to the franking tax credits that are allowed by tax law for dividends that are paid out of profits. Since their introduction in the mid-1980s, franking credits have been instrumental in the increased dividend payouts of Australian firms (Ho, 2003). A consequential amendment to tax law reflects that firms may not be able to take advantage of franking credits for dividends that are otherwise paid from profits (BDO, 2014; Branston, 2014).

This thesis aims to investigate whether the changed dividend law has affected Australian firms' dividend policy. However, the extant literature provides mixed but sufficient evidence of the significance of the change in dividend law for firms' dividend payouts. Some of the key studies in this respect, especially from the Australian perspective, are discussed below.

---

[9] The draft amendment proposes to replace threefold test with a more focused solvency test. According to the proposed amendment:

- Firms that are not required to produce IFRS-compliant financial statements will be able to rely on their existing financial records when determining net assets;
- The solvency issue is resolved by retaining the net assets test and adding a new additional requirement that the directors must reasonably believe that the company will still be solvent after declaring or paying the dividend.
- The fairness test will be removed.
- The balance sheet (net assets) and solvency tests will apply either at the time of declaration or at the time of payment, but not at both stages.
- Firms may pay dividends (or part thereof) out of their capital, provided that it amounts to an equal reduction of capital.

Ho (2003) conducts a comparative study of dividend policy in Australia and Japan. His sample includes 140 ASX-listed firms with 840 firm-year observations and 192 Nikkei-listed firms with 1,395 firm-year observations during 1992−2001. Ho (2003) finds that dividend payouts in Australia are positively related to firm size; that is, larger firms pay higher dividends and smaller firms pay lower dividends. The introduction of dividend imputation law in Australia in 1987 introduced major changes in Australian firms' dividend policy. First, it resulted in a higher payout ratio of up to 60 percent. Second the dividend reinvestment schemes that resulted in reduced cash outflows from firms became more common.

Kochiyama (2011) provides an example of the effect of regulatory change on dividend policy in the Japanese setting. He reports the distribution of unrealised fair value revaluations of trading securities by Japanese firms subsequent to the change in the Japanese Commerce Law in 2006, which allowed the distribution of such profits after the change.

Pattenden and Twite (2008) study the effect of the dividend imputation tax system on Australian firms' dividend policy. Their sample covers the period 1982−1997 and includes two groups of firms: dividend-paying with 151 firms and 1,628 firm-year observations, and dividend-initiating with 144 firms and 899 firm-year observations. They find that many firms initiated dividend distribution after the introduction of the dividend imputation system, while those already paying dividends increased their payouts and dividend reinvestment plans. Further, Pattenden and Twite (2008) report a positive association between available franking tax credits and gross dividend payouts, finding increased dividend volatility under the dividend imputation system.

Coulton and Ruddock (2011) study the frequency and magnitude of Australian firms' payouts. Their sample consists of 7,838 firm-year observations during 1993−2004 for ASX-listed firms, excluding financial institutions because of their specific regulatory requirements. They report that, on average, 39 percent of all firms paid dividends in any given year during the sample period, with a significant variation across different industries and sectors. Only a small proportion (1.8 percent) of firms paid special dividends each year and special dividends were generally used to distribute excess franking credit. Australia introduced share repurchase (buyback) legislation in 1989 but the real momentum in repurchases started in 1995. Coulton and

Ruddock (2011) find that, despite the relaxation of share repurchase regulations in 1998; regular cash dividends are still the most common method of payouts to shareholders and are still dominated by the largest listed firms. Coulton and Ruddock (2011) also find that stock repurchases in Australia are neither employed as a substitute for regular cash dividends, nor financed through a reduction in regular dividend payouts.

In summary, Australian corporate laws always encompass strict capital maintenance and dividend distribution laws that primarily aim to protect unsecured creditors (Anderson et al., 2012a). However, the 2010 change in the dividend law in conjunction with the past amendments that allow share buybacks and the reduction of share capital without court permission reflects the increasing irrelevance of the capital maintenance doctrine and provides more flexibility in dividend distribution. The literature provides sufficient evidence to suggest that changes in dividend law significantly influence firms' dividend policy (Ho, 2003; Kochiyama, 2011). This evidence establishes the motivation for this thesis, which is to investigate Australian firms' dividend payouts before and after the change in Australian dividend law introduced in 2010.

3.4 Hypotheses Development

Accounting information plays a significant role in the determination of firms' dividend payouts (Jensen and Meckling, 1976; Watts, 1977), which are associated with their reported earnings (Fama and Babiak, 1968; Deangelo et al., 1992; Fama and French, 2001; Goergen et al., 2005). Profit-test-based dividend law further strengthens this association by establishing a legal link between firms' reported earnings and dividend distribution. Managers of dividend-paying firms tend to prefer continuity of stable dividend payouts and are reluctant to cut dividends (Lintner, 1956; Brav et al., 2005). Prior literature suggests that dividend payouts are associated with permanent earnings components and not with transitory earnings components (Kormendi and Zarowin, 1996; Jagannathan et al., 2000).

Fair value accounting provides transparency in financial reporting and enhances the decision relevance of accounting information (Barth and Landsman, 1995; Hitz, 2007; Landsman, 2007). However, it also brings transitory earnings into external reporting (Plantin et al., 2008) and increases aggregate income volatility that may not be indicative of changes in future cash flows (Penman, 2007). The prior literature suggests that increased volatility of reported income under fair value accounting arises because of: (1) the inclusion of transitory change in the underlying economics due to mark-to-market valuation; (2) recognition of fair value adjustments of selective assets in income statements, but not offsetting them with corresponding adjustments (gains or losses) that arise in other assets or liabilities (Penman, 2007; Plantin et al., 2008); and (3) the inclusion of irrationally exuberant prices during economic bubbles (Penman, 2003).

Transitory earnings components may raise dividend payouts on a temporary basis, but they may not support such a rise on a consistent basis. Prior studies report firms' reluctance in making temporary changes in dividend payouts (Lintner, 1956; Brav et al., 2005); therefore, transitory earnings components do not affect cash dividend distribution (Jagannathan et al., 2000; Dittmar and Dittmar, 2002). It is imperative for firms to discern permanent earnings from transitory earnings components to ensure that dividend payouts are based on stable earnings rather than temporary earnings. However, if fair value adjustments are transitory and firm managers correctly assess the temporary nature of such adjustments on reported earnings then

fair value adjustments are not expected to affect core earnings and dividend payouts, particularly under profit-test-based dividend law. Accordingly, this leads to the first hypothesis of this thesis:

> **H1:** Positive fair value adjustments of financial instruments have no distribution consequences under profit-test-based dividend law.

The introduction of net-assets-test-based dividend law shows a fundamental change in the Australian corporations' law. This change effectively abolishes the capital maintenance doctrine that underpins profit-test-based dividend law in linking dividend payouts with reported earnings, and that restrained firms from making distributions other than out of profits. The shift to net-assets-tests-based dividend law relieves managers from the burden of possible non-compliance if dividends are not paid out of profits, and it allows firms to pay dividends disregarding their link with reported earnings or any of its components. The increasing number of transitory earnings components, such as fair value adjustments, has weakened the association between permanent earnings and dividend payouts, while the lessening regulatory requirements have further eroded the relationship between reported earnings and cash dividend payouts (Brav et al., 2005; Skinner, 2008). In this respect, some studies argue that the increasing role of fair value accounting in financial reporting impairs managers' ability to distinguish between persistent and temporary fair value adjustments (Cornett et al., 1996; Hung and Subramanyam, 2007). Resultantly, it is also argued that firms may deliberately or inadvertently distribute unrealised (upwards) fair value adjustments via dividends or stock repurchases especially during periods of economic growth (Boyer, 2007; Caruana and Pazarbasioglu, 2008), although the empirical evidence in this regard is conflicting and inconclusive (Beatty, 2007; Goncharov and Van Triest, 2011; De Jager, 2014).

Net-assets-test-based dividend law is argued to enable firms with little or no profits, but with enough resources, to payout cash dividends (Alexander et al., 2010). Accordingly, firms whose reported profits may have been adversely affected due to unrealised fair value adjustments may still be able to distribute dividends. The net-assets-test-based dividend law not only gives firms more flexibility in determining the timing and magnitude of dividend payouts, but it may also simultaneously augment shareholders' expectations of receiving dividends more frequently. For example, Brav et al. (2005) identify demand by the institutional investors as one of the key factors that may force non-paying firms to initiate dividend distribution. Furthermore, a change

in dividend law that is advantageous to shareholders and gives firms more flexibility and liberty in determining the form and volume of dividend payouts often results in increased dividend distribution (Grullon and Michaely, 2002; Ho, 2003; Pattenden and Twite, 2008).

Recently, De Jager's (2014) study in the South African setting shows that in the absence of any statutory restrictions, firms' dividend payouts are influenced by such transitory earnings components that result from the recognition of fair value adjustments of financial assets. Further, Kochiyama's (2011) study in the Japanese setting finds that statutory permission for the distribution of unrealised fair value gains of trading securities results in increased dividend payouts by Japanese firms.

The arguments provided above, along with the recent findings of De Jager (2014) and Kochiyama (2011), lead to the second hypothesis of this thesis:

H2: Positive fair value adjustments of financial instruments have distribution consequences under net-assets-test-based dividend law.

The first hypothesis presumes that the conventional association between profits and dividends reported by the prior research is further strengthened by the statutory link established by profit-test-based dividend law. Firms tend to ensure that dividends only reflect that part of earnings that are permanent in nature. The embedded variability in fair value adjustments under the profit-test-based dividend law impels managers to consider such adjustments transitory; therefore, positive fair value adjustments are not reflected in dividend payouts.

For hypothesis two, it is assumed that the abolishment of the statutory link between profits and dividends under the net-assets-test-based dividend law enables firms to be more flexible in relation to dividend policy decisions and to disassociate the conventionally assumed and expected relationship between dividend payouts and permanent earnings. Statutory flexibility encourages managers and shareholders to disregard the distinction between permanent and transitory earnings components, and to distribute favourable transitory earnings when they desire to do so. Therefore, positive fair value adjustments are expected to be distributed under net-assets-test-based dividend law.

Chapter 4: Research Design

This chapter delineates the research design used in this thesis to test the hypotheses developed in Chapter 3. This chapter is structured into two sections. Section 4.1 details the sample selection, data sources and the data items collected. Section 4.2 discusses the methods of analysis, along with measurements and the construct of the models used for the data analysis.

4.1 Sample Selection, Data Sources and Data Items

This thesis is based on archival research and applies a purposive sampling approach to form its sample of study. The study sample includes firms from the financial sector of the Australian Securities Exchange (ASX) and takes into analysis fair value adjustments of financial instruments that are reported on the income statement in accordance with IFRS. There are two reasons for choosing financial instruments and financial sector firms as sample. First, for most financial instruments IFRS requires that they should be measured at fair values and any changes in their fair values should be recognised into income statement. The requirements of IFRS reflect that for most financial instruments it is their fair value that matters most. Second, mostly the financial sector firms, such as banks and insurance companies, have the largest amount of financial instruments on their balance sheet. Therefore, any change in fair values of financial instruments is expected to have a big impact on their earnings (Hoogervorst, 2013). This indicates that the earnings of financial sector firms are highly sensitive to fair value changes.

The sample period spans nine years from the financial year 2005−06 to 2013−14. Australia adopted IFRS on 1 January 2005; therefore financial year 2005−06 is the first year in which ASX-listed companies adopted IFRS for external reporting purposes, while 2013−14 reflects the financial year that ends before the commencement of this thesis. Further, the change in dividend law in Australia was introduced in July 2010, and the net-assets-test-based dividend law became operational by replacing the profit-test-based dividend law. In this manner, the sample period encompasses the operational duration of both types of dividend laws. In fact, for data analysis purposes the sample period of nine years is divided into two sub-periods of five years (2005−06 to 2009−10) and four years (2010-11 to 2013-14), representing profit-test-based dividend law period and net-assets test- based dividend law period respectively.

The sampling procedure starts by identifying all the 185 ASX-listed firms in the financial sector as on 30 June 2015. However, considering the relevant period of this study, and to be consistent with Pattenden and Twite (2008), 45 firms are excluded from the sample to ensure that the sample is constrained to include those firms that have observations in each sub-period. However, in regard to any one firm, it is not necessary that observations to be available in all years of the whole sample period. This brings the sample size to 140 firms with observations in each year of the whole sample period. Next, to avoid survival bias, the sample incorporates a further 45 firms that were delisted before 30 June 2015 (the sample collection date), but were listed during the sample period and have observations in each sub-period. However, these firms also may not have observations in all years of the whole sample period. This results in a final sample size of 185 firms that are or were listed during the sample period and have observations for at least one financial year in each sub-period. The sample firms are categorised into four GICS [10] industry groups identified for the financial sector: banks, insurance, real estate and diversified financials. The details about the final sample are provided in Table 1.

The data are collected from DatAnalysis Premium-Morningstar database and from annual reports of the sample firms. Almost all the required data items, with the exception of fair value adjustments, are directly accessed from the database. Fair value adjustments of financial instruments that are reported in income statement are collected from the annual reports of the sample firms, which were also downloaded from DatAnalysis Premium-Morningstar. The extraction of fair value adjustments from annual reports required thorough scanning of income statement and related notes to the financial statements. Table 2 lists all data items collected from DatAnalysis Premium-Morningstar and from the annual reports of the sample firms. The data collection phase − especially the extraction of fair value adjustments − is carefully carried out to ensure the accuracy and integrity of the collected data. A sample of extracted fair value adjustments from the annual reports has been further verified by the supervisory panel of this thesis to ensure data accuracy and to augment the reliability of the data collection process.

[10]The Global Industry Classification Standard (GICS) is a joint Standard and Poor's/Morgan Stanley Capital International product aimed at standardising industry definitions. From 1 July 2002, the ASX adopted GICS industry classification. The GICS consists of 10 Sectors aggregated from 24 industry groups, 67 industries, and 147 sub-industries currently covering over 27,000 companies globally.

Table 1:

Study Sample Details

GICS Sector	Financial Sector							
GICS Industry Group	**Banks**		**Insurance**	**Real Estate**		**Diversified Financials**		Total
GICS Industry	Banks	T & MF [1]	Insurance	REITs [2]	REM&D [3]	DFS [4]	CF [5]	
ASX-listed companies as on 30-June-2015	8	6	12	51	30	67	11	185
Less: Companies that do not have observations in each sub-period	(1)	(3)	(3)	(16)	(4)	(17)	(1)	(45)
Listed companies having observations in each sub-period	7	3	9	35	26	50	10	140
Add: Delisted companies having observations in each sub-period	1	1	1	11	15	13	3	45
Companies in the Final Sample	8	4	10	46	41	63	13	**185**

[1] Thrifts & Mortgage Finance
[2] Real Estate Investment Trusts
[3] Real Estate Management & Development
[4] Diversified Financial Services
[5] Consumer Finance

Note: For data analysis purposes, the sample period of nine (2005−06 to 2013−14) is divided into the following two sub-periods:

1) Profit-test-based dividend law period consisting of five financial years (2005−06 to 2009−10)

2) Net-assets- test-based dividend law period consisting of four financial years (2010−11 to 2013−14)

Table 2:

Details of Data Items Collected

Data Items Collected	Data Source
Company's non-financial data ASX Code, Company Name, GICS Industry Group, GICS Industry, Date of Listing, Financial year date	*DatAnalysis Premium-Morningstar* database
Financial Data Net Income after tax, Annual cash dividend Total Assets, Total Debt Book Value of Equity, Market Value of Equity Cash	*DatAnalysis Premium-Morningstar* database
Fair value adjustments of financial instruments (that are reported in the income statement)	Annual Reports
Net Income before fair value adjustments GROWTH (% rise in Total Assets) SIZE (natural logarithm of Total Assets) LEVERAGE (Total Debt / Total Assets) CASH (scaled by total Assets) AGE (in years)	Computed from data items that are collected from *DatAnalysis Premium-Morningstar* database and annual reports

4.2 Methods of Analysis and Models used

The sample data are analysed using multivariate tests. Multivariate Analysis in the form of multiple regression analysis is used to predict dependent variable(s) using known values of independent variables in each of the specific models that are detailed below.

4.2.1 Analysis of Earnings Persistence

Given that the hypotheses of this thesis are conditional upon the persistence of fair value adjustments, to assess the implications of fair value adjustments for future earnings, this study uses the following regression as used by Goncharov and Van Triest (2011), which is similar to (Sloan, 1996). Additionally, a dummy variable and an interactive variable are introduced to assess the effect of dividend law change on the persistence of fair value adjustments:

$$NI_{it} = \gamma_0 + \gamma_1 D + \gamma_2 NIBFVA_{it-1} + \gamma_3 FVA_{it-1} + \gamma_4 D * FVA_{it-1} + \varepsilon_{it} \qquad (1)$$

Where:

NI_{it}	*is net income in year t, scaled by average total assets.*
D	*is a dummy variable to indicate change in the dividend law. It takes a value of one for net-assets-test-based dividend law and a value of zero for profit-test-based dividend law.*
$NIBFVA_{it-1}$	*is net income before fair value adjustments in year t - 1 scaled by average total assets. It is a proxy of the previous year's permanent income.*
FVA_{it-1}	*is fair value adjustments of financial instruments that are reported in the income statement in year t - 1 scaled by average total assets. It is a proxy of the previous year's transitory earnings.*
$D * FVA_{it-1}$	*is an interactive variable showing interaction effect between the dummy variable and fair value adjustments of financial instruments that are reported in the income statement in year t -1. It examines cross-sectional relationship between fair value adjustments and changes in net income after the introduction of net-assets-test-based dividend law.*
γ_0	is a constant term.
ε_{it}	is an error term.

The sign and magnitude of the coefficient of fair value adjustments ($\boldsymbol{\gamma_3}$) determine the persistence of fair value adjustments. For transitory fair value adjustments, $\boldsymbol{\gamma_3}$ is predicted to be zero. However, if $\boldsymbol{\gamma_3}$ is greater than zero, it indicates a favourable effect of fair value adjustments on future earnings, but if $\boldsymbol{\gamma_3}$ is less than zero, it reflects an adverse effect on firms' future earnings.

To lessen the effect of extreme observations (including the effect of negative fair value adjustments) on the results, the variable FVA_{it-1} is replaced by an indicator variable FVA_IDT_{it-1}, and the following regression is used to reassess the results:

$$NI_{it} = \gamma_0 + \gamma_1 D + \gamma_2 NIBFVA_{it-1} + \gamma_3 FVA\_IDT_{it-1} + \gamma_4 D * FVA_{it-1} + \varepsilon_{it} \quad (2)$$

Where: *all variables are the same as defined above, with the exception of:*

FAV_IDT_{it-1} *which is an indicator variable for year t - 1, equalling one if fair value adjustments are positive and zero otherwise.*

Again, similar to Equation (1), the sign and magnitude of the coefficient of fair value adjustments' indicator ($\boldsymbol{\gamma_3}$) determine the persistence of fair value adjustments. If $\boldsymbol{\gamma_3}$ is positive and statistically significant, it may reflect a positive relationship between fair value adjustments and dividends.

4.2.2 Dividend Policy Analysis

To evaluate the effect of historical cost components and fair value adjustments on firms' dividend payouts, this study uses Lintner's (1956) partial adjustment model to assess the relationship between earnings components and firms' dividend policy.

The initial set of independent variables is based on Fama and Babiak's (1968) variation of Lintner's (1956) model. The initial regression model is:

$$\Delta DIV_{it} = \alpha_0 + \alpha_1 NI_{it} + \alpha_2 NI_{it-1} + \alpha_3 DIV_{it-1} + \epsilon_{it} \quad (3)$$

Where:

$\Delta\ DIV_{it}$ *is change in dividend from year t -1to year t.*

NI_{it} *is net income in year t scaled by average total asset.*

NI_{it-1} *is net income in year t - 1 scaled by average total assets.*

DIV_{it-1} *is dividend in year t - 1scaled by average total assets.*

α_0 *is a constant term.*

ϵ_{it} *is an error term.*

Lintner's (1956) framework and evidence from prior studies suggest that the resultant coefficient of the lagged dividend ($\boldsymbol{\alpha_3}$) would be negative and the coefficient of the lagged earnings ($\boldsymbol{\alpha_2}$) would be positive.

However, as the Equation (3) in its original form does not test the effect of fair value adjustments on dividend changes, it is essential to decompose current net income into its two components: permanent earnings and fair value adjustments as transitory earnings. The revised regression is:

$$\Delta DIV_{it} = \beta_0 + \beta_1 D + \beta_2 NIBFVA_{it} + \beta_3 NIBFVA_{it-1} + \beta_4 FVA_{it} + \beta_5 D * FVA_{it} + \beta_6 DIV_{it-1} + \vartheta_{it} \quad (4)$$

Where:

ΔDIV_{it} *is change in dividends from year t - 1 to year t.*

D *is the dummy variable to indicate change in dividend law.*

$NIBFVA_{it}$ *is the net income before fair value adjustments in year t scaled by average total assets. It is a proxy of the current year's permanent income.*

$NIBFVA_{it-1}$ *is net income before fair value adjustments in year t - 1scaled by average total assets. It is a proxy of the lagged year's permanent income.*

FVA_{it} *is fair value adjustments of financial instruments that are reported in income statements in year t scaled by average total assets. It is a proxy of the current year's transitory income.*

$D * FVA_{it}$ *is an interactive variable showing interaction effect between the dummy variable and fair value adjustments of financial instruments that are reported in income statements in year t. It examines the cross-sectional relationship between fair value adjustments and changes in dividend payouts after the introduction of net-assets-test-based dividend law.*

DIV_{it-1}	*is dividend in year t - 1scaled by average total assets.*
α_0	*is a constant term.*
ϵ_{it}	*is an error term.*

The sign and statistical significance of the coefficient of the fair value adjustments ($\boldsymbol{\beta_4}$) determine whether this transitory earnings component is distributed. If $\boldsymbol{\beta_4 = 0}$, fair value adjustments are not distributed. However, where fair value adjustments are distributed, $\boldsymbol{\beta_4}$ will be greater than zero. If similar proportions of permanent and transitory earnings are distributed, the coefficients of both of these components will be equal; that is, $\boldsymbol{\beta_2 = \beta_4}$.

Similar to Equation (2), the variable $\boldsymbol{FVA_{it}}$ in Equation (4) is replaced with an indicator variable $\boldsymbol{FVA\_IDT_{it}}$ to lessen the effect of extreme observations (including the effect of negative fair value adjustments) on the results. After this change, the following regression is used to reassess the results:

$$\Delta DIV_{it} = \beta_0 + \beta_1 D + \beta_2 NIBFVA_{it} + \beta_3 NIBFVA_{it-1} + \beta_4 FVA\_IDT_{it} + \beta_5 D * FVA_{it} + \beta_6 DIV_{it-1} + \vartheta_{it} \quad (5)$$

Where:	*all variables are the same as defined above, with the exception of:*
FAV_IDT_{it}	*which is an indicator variable for year t, equalling one if fair value adjustments are positive and zero otherwise.*

Similar to the Equation (4), the sign and magnitude of the coefficient of fair value adjustments' indicator $\boldsymbol{(\beta_4)}$ determine the distribution or non-distribution of this transitory earnings component.

To make the findings more conspicuous and credible in economic and statistical terms, Lintner's (1956) framework as explained in Equations (4) and (5) is extended to include other determinants of dividend policy. In this respect, recognising the significance and role of signalling (Bhattacharya, 1979; Rees, 1997; Fama and French, 1998) and agency costs (Easterbrook, 1984; Jensen, 1986) theories in shaping firms' dividend policy, three new variables – $\boldsymbol{SIZE_{it}}$, $\boldsymbol{LEVERAGE_{it}}$ and $\boldsymbol{GROWTH_{it}}$– are included to control for the cross-sectional variations in firms' dividend policy. Further, firms' financial constraint in paying dividends is

also controlled by the inclusion of another variable, ***CASH*** $_{it}$. After including these variables in Equations (4) and (5), the new regressions are as follows:

$$\Delta DIV_{it} = \beta_0 + \beta_1 D + \beta_2 NIBFVA_{it} + \beta_3 NIBFVA_{it-1} + \beta_4 FVA_{it} + \beta_5 D * FVA_{it} + \beta_6 DIV_{it-1} + \beta_7 SIZE_{it} + \beta_8 LEVERAGE_{it} + \beta_9 GROWTH_{it} + \beta_{10} CASH_{it} + \vartheta_{it} \quad (6)$$

$$\Delta DIV_{it} = \beta_0 + \beta_1 D + \beta_2 NIBFVA_{it} + \beta_3 NIBFVA_{it-1} + \beta_4 FVA\_IDT_{it} + \beta_5 D * FVA_{it} + \beta_6 DIV_{it-1} + \beta_7 SIZE_{it} + \beta_8 LEVERAGE_{it} + \beta_9 GROWTH_{it} + \beta_{10} CASH_{it} + \vartheta_{it} \quad (7)$$

Where: *all variables are the same as defined above, with the exception of:*

SIZE $_{it}$ *is the natural logarithm of average total assets.*

LEVERAGE $_{it}$ *is financial leverage defined as the ratio of average total debt to average total assets.*

GROWTH $_{it}$ *is the percentage change in total assets from year t-1 to year t.*

CASH $_{it}$ *is average cash balance scaled by average total assets.*

Table 3 lists all the dependent, independent, control and interactive variables that are used in different regression models of this study.

Table 3:

List of variables used in Regression Models

Dependent Variables

NI_{it}	Net income after tax in year t.
ΔDIV_{it}	Change in dividends from year t-1 to year t.

* Both dependent variables are scaled by average total assets.

Independent Variables

$NIBFVA_{it}$	Net income before fair value adjustments in year t.
$NIBFVA_{it-1}$	Net income before fair value adjustments in year t-1.
FVA_{it}	Fair value adjustments of financial instruments reported in the income statement in year t.
FVA_{it-1}	Fair value adjustments of financial instruments reported in the income statement in year t-1.
DIV_{it-1}	Dividends paid in year t-1.

* All independent variables are scaled by average total assets.

Control Variables

$GROWTH_{it}$	Percentage rise in total assets from year t-1to year t.
$SIZE_{it}$	Natural logarithm of total assets at the beginning of year t.
$LEVERAGE_{it}$	defined as ratio of total debt to total assets at the beginning of year t.
$CASH_{it}$	Cash balance at beginning of year t scaled by average total assets

Dummy (or Indicator) Variables

D	Indicates change in dividend law (1= net-assets-test-based law; 0=profit-test-based law).
FVA_IDT_{it}	Equals one if fair value adjustments are positive and zero otherwise (in year t).
FVA_IDT_{it-1}	Equals one if fair value adjustments are positive and zero otherwise (in year t-1).

Interactive Variables

$D*FVA_{it}$ and $D*FVA_{it-1}$ shows interaction effect between dummy variable and fair value adjustments of financial instruments that are reported in income statements in year t and t-1 respectively.

Chapter 5: Results

This chapter is structured into three sections. Section 5.1 describes the composition of the study sample and provides descriptive statistics for the sample. Section 5.2 examines the multicollinearity problem in the data by analysing the correlation coefficients among the regression model variables. Finally, section 5.3 discusses the results of the regression analysis.

5.1 Sample Composition and Descriptive Statistics

Table 4 presents certain key characteristics of the data sample. Panel A shows the composition of the sample firms and firm-year observations into GICS industry groups and GICS industry within the financial sector of ASX-listed firms. Panel A shows that the real estate and diversified financials industry groups account for 46.92 percent and 40.84 percent of the firm-year observations respectively, while banks and insurance industry groups collectively account for 12.23 percent of the firm-year observations in the whole sample period. Panel B shows that 56.55 percent of the firm-year observations are from sub-sample period one (profit-test-based dividend law period), while 43.45 percent are from sub-sample period two (net-assets-test-based dividend law period). These percentages reflect that the sample observations are fairly evenly distributed across two dividend law periods. Analysis of Panel C and Panel D shows that both sub-sample periods report similar percentages (37.59 percent and 37.69 percent) in relation to positive fair value adjustments, showing similar pattern across two sub-sample periods. However, in regard to dividend payments, sub-sample period two reports a lower percentage (67.23 percent) than sub-sample period one (73.76 percent), showing a decreasing trend of dividend payments in sub-sample period two. Similarly, sub-sample period two reports a lower positive change in dividend payouts (42.15 percent) than sub-sample period one (48.11 percent), showing decreasing trend in increased dividend payouts. Overall, Table 4 shows relatively well distributed sample observations in two sub-sample periods, with an equal percentage of firm-year observations reporting positive fair value adjustments. However, in regard to dividend payments and positive changes in dividend payments, sub-sample period two reports lower percentages than sub-sample period one, showing decreasing trend in both, dividend payments and higher dividend payments in relation to lagged dividends.

Table 5 presents descriptive statistics for the whole sample period in Panel A and for sub-sample periods one and two in Panel B and Panel C respectively. Panel B and Panel C show that in regard to income variables, that are NI_{it}, NI_{it-1}, $NIBFVA_{it}$ and $NIBFVA_{it-1}$, sub-sample period one has lower standard deviations than sub-sample period two. While, in regard to other variables there is a mixed trend. Some variables, like FVA_{it}, ΔDIV_{it} and $LEVERAGE_{it}$ show higher standard deviations in sub-sample period one; whereas, DIV_{it-1}, $SIZE_{it}$ and $CASH_{it}$ show higher standard deviations in sub-sample period two.

Combined analysis of Panel C of Table 4 and Panel B of Table 5 reveals that, in profit-test-based dividend law period (sub-sample period one), firms pay higher and more frequent dividends (73.76 percent dividend payouts and 48.11 percent positive dividend change in Panel C of Table 4 and positive mean value of ΔDIV_{it} in Panel B of Table 5) in line with current period positive permanent earnings (positive median value of $NIBFVA_{it}$ in Panel B of Table 5), not linking such payments with fair value adjustments (negative mean and zero median value of fair value adjustments in Panel B of Table 5). These findings are consistent with prior literature that dividend payouts are associated with permanent earnings and not with transitory earnings components (Lintner, 1956; Fama and Babiak, 1968; Kormendi and Zarowin, 1996; Jagannathan et al., 2000; Dittmar and Dittmar, 2002).

Combined analysis of Panel D of Table 4 and Panel C of Table 5 reveals that, in net-assets-test-based dividend law period (sub-sample period two), despite of positive mean and median values of permanent earnings (NIBFVA) and fair value adjustments (FVA), firms pay lower and less frequent dividends (67.23 percent dividend payouts and 42.15 percent positive dividend change in Panel D of Table 4 and negative mean and zero median values of ΔDIV_{it} in Panel C of Table 5).

Table 4: Sample composition

GICS Industry group	Banks		Insurance	Real Estate		Diversified Financials		Total	
GICS Industry	Banks	T&MF [1]	Insurance	REITs [2]	REM&D [3]	DFS [4]	CF [5]	N	%
Panel A: *Sample firms and firm-year observations*									
Number of Firms	8	4	10	46	41	63	13	**185**	**100%**
Firm-year observations	69	32	82	368	334	511	100	**1496**	**100%**
Panel B: *Firm-year observations as per dividend law periods (N=1496)*									
Profit-test-based dividend law	40	17	43	212	194	286	54	**846**	**56.55%**
Net-assets-test-based dividend law	29	15	39	156	140	225	46	**650**	**43.45%**
Panel C : *Key features of firm-year observations under sub-sample period one* **** (N=846)***									
Positive Fair Value adjustments	18	3	22	95	26	145	9	**318**	**37.59%**
Dividend payments	40	10	35	197	111	199	32	**624**	**73.76%**
Positive change in dividend payouts	30	7	24	111	66	149	20	**407**	**48.11%**
Panel D : *Key features of firm-year observations under sub-sample period two* **** (N=650)***									
Positive Fair Value adjustments	22	6	23	56	32	97	9	**245**	**37.69%**
Dividend payments	29	11	33	103	73	161	27	**437**	**67.23%**
Positive change in dividend payouts	24	6	21	56	44	106	17	**274**	**42.15%**

[1] Thrifts & Mortgage Finance
[2] Real Estate Investment Trusts
[3] Real Estate Management & Development
[4] Diversified Financial Services
[5] Consumer Finance

***** For data analysis purposes the sample period of nine years from financial year 2005−06 to 2013−14 is divided into two sub-sample periods: sub-sample period one covers profit-test-based dividend law period (2005−06 to 2009−10) and sub-sample period two covers net-assets-based dividend law period (2010−11 to 2013−14).

Table 5: Descriptive Statistics

Panel A: Whole sample period 2005−06 to 2013−14 (N = 1496)

Variables	Mean	Std. Dev.	Q1	Median	Q3
NI_{it}	0.13282	6.0510	-0.01103	0.02715	0.06099
NI_{it-1}	0.88505	39.11542	-0.00791	0.02633	0.05384
$NIBFVA_{it}$	0.13417	6.04934	-0.01228	0.02104	0.05232
$NIBFVA_{it-1}$	0.89300	39.12176	-0.01082	0.02155	0.04926
FVA_{it}	-0.00134	0.09765	-0.00197	0.00000	0.00394
FVA_IDT_{it}	0.37633	0.48443	0.00000	0.00000	1.00000
ΔDIV_{it}	-0.00026	0.07438	-0.00090	0.00000	0.00498
DIV_{it-1}	0.02752	0.06765	0.00000	0.01548	0.03602
$SIZE_{it}$	19.27895	2.77914	17.5090	19.14140	20.62245
$LEVERAGE_{it}$	0.41297	2.67748	0.00000	0.21402	0.47193
$GROWTH_{it}$	0.34166	2.67231	-0.10627	0.03251	0.19355
$CASH_{it}$	0.11581	0.18749	0.01429	0.04473	0.12876

Panel B: Sub-sample period one (profit-test-based period) 2005−06 to 2009−10 (N=846)

Variables	Mean	Std. Dev.	Q1	Median	Q3
NI_{it}	-0.03924	1.28791	-0.01306	0.03505	0.07381
NI_{it-1}	-0.24853	3.63773	-0.00424	0.03067	0.06084
$NIBFVA_{it}$	-0.35191	1.28446	-0.01116	0.02397	0.05850
$NIBFVA_{it-1}$	-0.22877	3.76006	-0.00340	0.02568	0.05305
FVA_{it}	-0.00405	0.09827	-0.00303	0.00000	0.00607
FVA_IDT_{it}	0.37589	0.48464	0.00000	0.00000	1.00000
ΔDIV_{it}	0.00196	0.08152	-0.00156	0.00000	0.00563
DIV_{it-1}	0.02717	0.06481	0.00000	0.01604	0.03607
$SIZE_{it}$	19.29877	2.66990	17.51197	19.11730	20.61824
$LEVERAGE_{it}$	0.45556	3.35267	0.00072	0.22634	0.49172
$GROWTH_{it}$	0.44882	3.20561	-0.11267	0.05248	0.26190
$CASH_{it}$	0.10807	0.17268	0.01350	0.04275	0.11927

Panel C: Sub-sample period two (net-assets-test-based period) 2010−11 to 2013−14 (N=650)

Variables	Mean	Std. Dev.	Q1	Median	Q3
NI_{it}	0.35677	9.06066	-0.00857	0.02058	0.05293
NI_{it-1}	2.36046	59.18931	-0.01219	0.02112	0.04951
$NIBFVA_{it}$	0.35460	9.05886	-0.01577	0.01815	0.04815
$NIBFVA_{it-1}$	2.35304	59.18968	-0.02369	0.01785	0.04288
FVA_{it}	0.00217	0.09680	-0.00117	0.00000	0.00199
FVA_IDT_{it}	0.37683	0.48454	0.00000	0.00000	1.00000
ΔDIV_{it}	-0.00316	0.06385	-0.00045	0.00000	0.00446
DIV_{it-1}	0.02798	0.07123	0.00000	0.01417	0.03608
$SIZE_{it}$	19.25315	2.91708	17.50482	19.19557	20.63847
$LEVERAGE_{it}$	0.35753	1.36875	0.00000	0.19844	0.44017
$GROWTH_{it}$	0.20218	1.74252	-0.09274	0.01733	0.13424
$CASH_{it}$	0.12587	0.20487	0.15931	0.04606	0.13602

Where:

NI_{it}	is net income after tax in year t scaled by average total assets.
NI_{it-1}	is net income after tax in year t - 1 scaled by average total assets.
$NIBFVA_{it}$	Net income before fair value adjustments in year t (a proxy for permanent earnings)
$NIBFVA_{it-1}$	Net income before fair value adjustments in year t-1(a proxy for permanent earnings)
FVA_{it}	is fair value adjustments of financial instruments that are reported on the income statement scaled by average total assets. It is a proxy for transitory earnings.
FVA_IDT_{it}	is an indicator variable equalling one if fair value adjustments are positive and zero otherwise.
ΔDIV_{it}	is change in dividends from year t-1 to t scaled by average total assets.
DIV_{it-1}	is dividends in year t-1 scaled by average total assets.
$SIZE_{it}$	is the natural logarithm of total assets at the beginning of year t.
$LEVERAGE_{it}$	is financial leverage defined as the ratio of total debt to total assets at the beginning of year t.
$GROWTH_{it}$	is the percentage change in total assets from year t-1 to year t.
$CASH_{it}$	is cash balance at the beginning of year t scaled by average total assets.

5.2 Correlation Analysis and Multicollinearity

Table 6 and Table 7 present the correlation matrix among independent variables used in the regression models to analyse the relationship between these variables to check for multicollinearity. Table 6 provides the correlation matrix among independent variables for the whole sample period of nine years (2005−06 to 2013−14). Table 7 contains the correlation matrices for both sub-sample periods. The upper matrix in Panel B relates to sub-sample period one (2005−06 to 2009−10), while the lower matrix relates to sub-sample period two (2010−11 to 2013−14).

Table 6 shows that several correlation coefficients are statistically significant; however, most correlation coefficients are low, with the exception of one coefficient between $SIZE_{it}$ and $GROWTH_{it}$ (coefficient = -0.81). Given that these variables are only used as additional control variables in two out of six regression models, they are not expected to influence the findings of the study. Excluding this particular correlation coefficient the next highest coefficient is -0.467, which is lower than the identified limit of 0.70 for possible multicollinearity.

Table 7 also shows several statistically significant correlation coefficients for both sub-sample periods. In sub-sample period one, correlation between $NIBFVA_{it}$ and $LEVERAGE_{it}$ (Coefficient = -0.887) is statistically significant and shows negative association between these two variables. In sub-sample period two, correlation between $NIBFVA_{it}$ and $LEVERAGE_{it}$ (Coefficient = 0.779) is again statistically significant and shows positive association between these two variables. Another statistically significant correlation, in sub-sample period two, exists between $NIBFVA_{it-1}$ and FVA_{it} (Coefficient = -0.718). The highly significant correlation coefficients between variables of interest indicate that any significant results of the regression models involving these variables require particular care and attention for interpretation and validity. All other correlation coefficients, in both sub-sample periods, are lower than the identified limit of 0.70 for possible multicollinearity.

Table 6: Pearson Correlation matrix - The whole sample period 2005-06 to 2013-14 **(N=1496)**

	Variables	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
(1)	**FVA** $_{it}$	1										
(2)	**FVA** $_{it-1}$	**0.063*** **(0.014)**	1									
(3)	**NIBFVA** $_{it}$	0.009	-0.006	1								
(4)	**NIBFVA** $_{it-1}$	**-0.467**** **(0.000)**	-0.024	-0.019	1							
(5)	**FVA_IDT** $_{it}$	**0.355**** **(0.000)**	0.027	-0.016	-0.018	1						
(6)	**FVA_IDT** $_{it-1}$	**0.099**** **(0.000)**	**0.141**** **(0.000)**	-0.016	-0.021	**0.387**** **(0.000)**	1					
(7)	**DIV** $_{it-1}$	**-0.066*** **(0.010)**	-0.024	**0.103**** **(0.000)**	-0.013	-0.025	0.003	1				
(8)	**SIZE** $_{it}$	**0.058*** **(0.024)**	0.010	**-0.061*** **(0.018)**	**-0.084**** **(0.001)**	**0.252**** **(0.000)**	**0.249**** **(0.000)**	**-0.098**** **(0.000)**	1			
(9)	**LEVERAGE** $_{it}$	**-0.076**** **(0.003)**	0.027	**0.125**** **(0.000)**	**0.121**** **(0.000)**	-0.045	-0.044	-0.027	**-0.108**** **(0.000)**	1		
(10)	**GROWTH** $_{it}$	0.038	0.016	0.032	-0.015	-0.042	**-0.062*** **(0.016)**	**0.057*** **(0.027)**	**-0.81**** **(0.002)**	0.025	1	
(11)	**CASH** $_{it}$	0.027	0.003	0.1700	-0.024	-0.068** (0.009)	**-0.070**** **(0.007)**	**0.085**** **(0.001)**	**-0.401**** **(0.000)**	**0.144**** **(0.000)**	**0.068**** **(0.009)**	1

In regard to significant correlations, p-values are presented in parenthesis below the correlation coefficients.
** and * indicate that correlation is significant at the 0.01 and 0.05 levels (2-tailed).
All variables are defined in Table 5 (below Panel C) with the exception of: FVA_{it} that reflects fair value adjustments in year t-1, and FVA_IDT_{it-1} is the indicator variable being equal to one if fair value adjustments in year t-1 are positive, otherwise it is equal to zero.

Table 7: Pearson Correlation matrix - Two sub-sample periods

Above part - Profit-test-based dividend law period 2005−06 to 2009−10 with **N = 846**

Below part - Net-assets-test-based dividend law period 2010−11 to 2013−14 with **N = 650**

	Variables	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
(1)	**FVA_{it}**		0.067	-0.003	-0.003	**0.400** (0.000)**	**0.072** (0.036)*	-0.047	0.022	0.001	0.045	0.024
(2)	**FVA_{it-1}**	**0.095** (0.016)*		-0.044	**-0.340** (0.000)**	0.018	**0.131** (0.000)**	-0.050	0.023	0.032	0.019	-0.015
(3)	**$NIBFVA_{it}$**	0.013	-0.003		**0.398** (0.000)**	0.032	0.024	0.022	**0.128** (0.000)**	**-0.887** (0.000)**	-0.029	**-0.292** (0.000)**
(4)	**$NIBFVA_{it-1}$**	**-0.718** (0.000)**	-0.005	-0.025		0.051	-0.010	-0.001	**0.197** (0.000)**	**-0.487** (0.000)**	-0.007	**-0.151** (0.000)**
(5)	**FVA_IDT_{it}**	**0.295** (0.000)**	**0.102** (0.009)**	-0.031	-0.031		**0.353** (0.000)**	-0.008	**0.233** (0.000)**	-0.049	-0.040	**-0.073** (0.033)*
(6)	**FVA_IDT_{it-1}**	**0.132** (0.001)**	**0.323** (0.000)**	-0.031	-0.032	**0.430** (0.000)**		0.002	**0.248** (0.000)-**	-0.043	-0.062	**-0.095** (0.006)**
(7)	**DIV_{it-1}**	**-0.091** (0.021)*	0.072	**0.147** (0.000)**	-0.018	-0.045	0.002		-0.029	-0.032	-0.005	**0.091** (0.008)**
(8)	**$SIZE_{it}$**	**0.104** (0.008)**	-0.041	**-0.111** (0.005)**	**0.136** (0.001)**	**0.275** (0.000)**	**0.251** (0.000)**	**-0.172** (0.000)**		**-0.117** (0.001)**	-0.045	**-0.414** (0.000)**
(9)	**$LEVERAGE_{it}$**	**-0.348** (0.000)**	-0.026	**0.779** (0.000)**	**0.462** (0.000)**	-0.049	-0.058	-0.020	**-0.123** (0.002)**		0.029	**0.248** (0.000)**
(10)	**$GROWTH_{it}$**	0.033	0.006	**0.088** (0.024)*	-0.030	-0.053	-0.066	**0.202** (0.000)**	**-0.175** (0.000)**	-0.007		0.005
(11)	**$CASH_{it}$**	0.029	**0.078** (0.047)*	-0.007	-0.025	-0.063	-0.047	**0.079** (0.045)*	**-0.388** (0.000)**	-0.070	**0.216** (0.000)**	

In regard to significant correlations, p-values are presented in parenthesis below the correlation coefficients.

** and * indicate that correlation is significant at the 0.01 and 0.05 levels (2-tailed).

All variables are defined in Table 5 (below Panel C) with the exception of: FVA_{it} that reflects fair value adjustments in year t-1, and FVA_IDT_{it-1} is the indicator variable being equal to one if fair value adjustments in year t-1 are positive, otherwise it is equal to zero.

5.3 Results of Regression Analysis

The descriptive statistics in Table 5 suggest that extreme observations have an impact on regression model variables. For example, for the whole sample period, the mean of NIBFVA $_{it}$ is 0.134 (standard deviation 6.049), but for NIBFVA $_{it-1}$ it is 0.893 (standard deviation 39.121). Such considerable differences in the mean and standard deviation for essentially the same variable (NIBFVA $_{it-1}$ being the lagged NIBFVA $_{it}$) strongly suggests that outliers have impact over statistics and are likely to influence the regression results as well. Indeed, the median values, which are not influenced by extreme outliers, appear to be stable (0.021 for both NIBFVA $_{it}$ and NIBFVA $_{it-1}$). Similar effects are evident for other variables like NI, FVA, LEVERAGE and GROWTH. Therefore, in order to lessen the impact of extreme observations on regression results, variables in the sample are winsorized[11] at 1% and 99% levels.

As discussed in the research design chapter, Models 1 and 2 test earnings persistence and do not directly test any of the hypotheses of this study. While, Models 4 and 5 analyse the dividend policy and test both hypotheses of this study. Models 6 and 7 also test the study's hypotheses by including additional control variables in the analysis. The application of regression models to the whole sample period provides evidence in regard to the dividend policy for the whole sample period, while the period dummy variable and the period interactive variable in these models show the significance of the change in the dividend law, from profit-test-based to net-assets-based dividend law, in determination of firms' dividend policy.

The application of regression models to the whole sample period may be argued to not provide direct evidence in regard to both hypotheses of this study. Therefore, to obtain conclusive evidence in regard to hypotheses of this study and to further explore firms' dividend policy under two alternative dividend law systems, the analysis is extended by reapplying all the regression models, after excluding the period dummy variable and the period interactive variable, to each sub-sample period. The results are discussed separately, for the whole sample period as well as for two sub-sample periods, with regard to the earning persistence analysis in Table 8 and for the dividend policy analysis in both Table 9 and Table 10.

[11] Winsorising is the transformation of statistics by limiting extreme values in the statistical data to reduce the effect of possibly spurious outliers.

Earnings Persistence analysis

In Table 8, results of the earnings persistence Models 1 and 2 are very similar and consistent for both sub-sample periods and as well as for the whole sample period. Among the model variables, the lagged permanent earnings ($NIBFVA_{it-1}$) and the lagged fair value adjustments (FVA_{it-1}) have positive and statistically significant coefficients, for each sub-sample period and also for the whole sample period, predicting a favourable effect of these two variables on current period's Net Income (NI). In Model 2, replacing FVA_{it-1} with FVA_IDT_{it-1}, a dummy binary variable, does not alter the results and still the lagged permanent earnings ($NIBFVA_{it-1}$) and the lagged fair value adjustments (here, FVA_IDT_{it-1}) are the only significant variables with positive coefficients.

In the whole sample period, the period dummy variable is not statistically significant, reflecting that the change in the dividend law does not affect determination of current period's net income (NI_{it}). This result is further substantiated by reapplying Models 1 and 2 to each of the two sub-sample periods. The results of both sub-sample periods are similar and show that in both periods lagged permanent earnings ($NIBFVA_{it-1}$) and lagged fair value adjustments (FVA_{it-1} or FVA_IDT_{it-1}) are statistically significant variables with positive coefficients that determine current period's net income (NI_{it}). The overall explanatory power of both Models 1 and 2 is reasonably moderate (adj. R^2 ranging between 0.243 and 0.266; p-value = 0.000) in each of the two sub-samples and the whole sample period.

The results of earnings persistence Models 1 and 2 are consistent with prior studies. Prior literature provides that lagged (permanent) earnings contain information for current period's earnings and expected to have a statistically significant positive coefficient (Fama and Babiak, 1968; Goncharov and Van Triest, 2011). In regard to the role of transitory earnings (here, fair value adjustments), some studies argue that transitory earnings may not contain information about future earnings and are not reflective of future earnings (Deangelo et al., 1992; Kormendi and Zarowin, 1996). However, many studies provide that the increasing role of fair value accounting, especially in the financial sector, affects managers' ability to distinguish between persistent and temporary fair value adjustments (Cornett et al., 1996; Hung and Subramanyam, 2007), and accordingly fair value adjustments may perceived to be the reflective of future earnings, a proposition validated by the results in Table 8.

Table 8: Earnings Persistence analysis

	The whole sample period		Sub-sample period One		Sub-sample period Two	
	2005-06 to 2013-14		Profit-test-based period 2005-06 to 2009-10		Net-Assets-test-based period 2010-11 to 2013-14	
Variables	**Model 1**	**Model 2**	**Model 1**	**Model 2**	**Model 1**	**Model 1**
Dependent Variable is **Net Income (NI_{it})**						
Constant	0.005 (0.903)	-0.007 (-0.991)	0.005 (0.896)	-0.006 (-0.860)	-0.003 (-0.477)	-0.021** (-2.267)
Period Identifier (D)	-0.023 (-1.024)	-0.020 (-0.888)				
$NIBFVA_{it-1}$	0.509*** (22.903)	0.504*** (22.562)	0.487*** (16.294)	0.485*** (16.149)	0.532*** (15.983)	0.515*** (15.448)
FVA_{it-1}	0.082*** (3.051)		0.094*** (3.159)		0.107*** (3.226)	
FVA_IDT_{it-1}		0.069*** (2.971)		0.066** (2.210)		0.107*** (3.217)
$D * FVA_{it-1}$	0.028 (1.062)	0.053** (2.285)				
Model Specifications						
p-value	0.000***	0.000***	0.000***	0.000***	0.000***	0.000***
Adjusted R^2	0.266	0.266	0.248	0.243	0.285	0.285
N	1496	1496	846	846	650	650

***, ** and * indicate statistical significance at the 0.01, 0.05 and 0.1 levels respectively (2-tailed). t-statistics in parentheses.

Dividend Policy Analysis

In Table 9, Models 4 and 5 analyse firms' dividend policy for the whole sample period and as well as for each of the two sub-sample periods. In Table 10, analysis of firms' dividend policy is further extended by including additional control variables into Model 6 and 7.

The results of Models 4 and 5 in Table 9 show that, for the whole sample period and both sub-sample periods, current period permanent earnings ($NIBFVA_{it}$) have a statistically significant positive coefficient, while lagged dividends (DIV_{it-1}) have a negative coefficient with statistical significance. The sign and the statistical significance of both these variables remain unchanged when additional control variables, such as LEVERAGE and GROWTH, are introduced in Models 6 and 7 in Table 10. These results are consistent with Lintner (1956)'s framework and the findings of Goncharov and Van Triest (2011).

Introduction of additional control variables, in Models 6 and 7 in Table 10, show that the $LEVERAGE_{it}$ has a statistically significant negative coefficient in the whole sample period and also in both sub-sample periods. This shows that the financial leverage (LEVERAGE) is a significant factor in determination of firms' dividend policy and its existence in firms' capital structure results in lower dividend payouts. This result is also consistent with prior literature that suggests that debt holders use loan covenants, to limit dividend payouts, as a security measure to protect their interests (Ben-Zion and Shalit, 1975; Barclay et al., 1997). In Australian perspective, prior literature suggests that firm's size also have significant influence on firms' dividend policy (Pattenden and Twite, 2008; Coulton and Ruddock, 2011). However, results of this study, provided in Table 10, do not support this argument as variable $SIZE_{it}$ does not have statistically significant coefficient in any of the sub-sample period or the whole sample period.

In regard to the whole sample period, period dummy variable (D) and the period interactive variable ($D*FVA_{it}$) have no statistical significance either in Models 4 and 5 in Table 9 or in Models 6 and 7 in Table 10 where additional control variables are introduced. This signifies that the change in the dividend law, from profit-test-based law to net-assets-test based law, has no impact on firms' dividend policy. Further, in the whole sample period, the statistical significance of the positive coefficient of current period fair value adjustments (FVA_{it}) show that firms distribute transitory earnings to their shareholders. The distribution of fair value

Table 9: Dividend Policy analysis - I

	The whole sample period		Sub-sample period One		Sub-sample period Two	
	2005-06 to 2013-14		Profit-test-based period 2005-06 to 2009-10		Net-Assets-test-based period 2010-11 to 2013-14	
Variables	**Model 4**	**Model 5**	**Model 4**	**Model 5**	**Model 4**	**Model 5**
Dependent Variable is **Changes in Dividends (Δ DIV $_{it}$)**						
Constant	0.008*** (10.065)	0.007*** (7.915)	0.007*** (7.565)	0.006*** (5.199)	0.009*** (9.944)	0.008*** (8.012)
Period Identifier (D)	-0.003 (-0.122)	-0.001 (-0.033)				
NIBFVA $_{it}$	0.177*** (6.262)	0.174*** (6.110)	0.262*** (6.844)	0.256*** (6.639)	0.090** (2.216)	0.090** (2.193)
NIBFVA $_{it-1}$	0.033 (1.168)	0.031 (1.089)	-0.053 (-1.404)	-0.055 (-1.424)	0.109*** (2.690)	0.106*** (2.601)
FVA $_{it}$	0.112*** (4.032)		0.127*** (3.998)		0.049 (1.463)	
FVA_IDT $_{it}$		0.048* (1.940)		0.070** (2.192)		0.033 (0.984)
D * FVA $_{it}$	-0.024 (-0.868)	0.023 (0.918)				
DIV $_{it-1}$	-0.404*** (-16.947)	-0.408*** (-17.074)	-0.336*** (-10.353)	-0.343*** (-10.494)	-0.489*** (-14.033)	-0.495*** (-14.282)
Model Specifications						
p-value	0.000***	0.000***	0.000***	0.000***	0.000***	0.000***
Adjusted R^2	0.187	0.180	0.154	0.143	0.272	0.271
N	1496	1496	846	846	650	650

***, ** and * indicate statistical significance at the 0.01, 0.05 and 0.1 levels respectively (2-tailed). t-statistics in parentheses.

adjustments with no effect of dividend law change on firms' dividend policy hint that the hypothesis one, that predicts non distribution of fair value adjustment in profit-test-based dividend law period, may be rejected but the hypothesis two, which predicts distribution of fair value adjustments in net-assets-based dividend law period, may be accepted. However, for conclusive evidence these models are reapplied to both sub-sample periods. The explanatory power of Models 4 to 7, in regard to the whole sample period, is relatively low (adj. R^2 ranging between 0.18 and 0.20).

In regard to the sub-sample period one, the profit-test-based dividend law period, Models 4 and 5 in Table 9 and Models 6 and 7 in Table 10 show that, in addition to current permanent earnings ($NIBFVA_{it}$), current period fair value adjustments (FVA_{it} or FVA_IDT_{it}) also have a statistically significant positive coefficient. This shows that in profit-test-based dividend law period firms' dividend payout include both permanent earnings and transitory earnings (i.e. fair value adjustments). The distribution of fair value adjustments is contrary to the predictions of hypothesis one, and therefore, hypothesis one is rejected. The rejection of hypothesis one can be explained by the argument that the increasing role of fair value accounting may have impaired managers' ability to distinguish persistent and transitory adjustments (Cornett et al., 1996; Hung and Subramanyam, 2007), and accordingly when such adjustments increase earnings, firms did not take into consideration, while paying dividends, that they are distributing transitory earnings (De Jager, 2014).

Further, in sub-sample period one, lagged dividend payouts (DIV_{it-1}) and financial leverage ($LEVERAGE_{it}$) also have statistically significant negative coefficients that signify their restraints on current period's dividend, a feature consistent with prior literature (Lintner, 1956; Ben-Zion and Shalit, 1975; Barclay et al., 1997; Goncharov and Van Triest, 2011). The explanatory power of Models 4 to 7, in regard to the profit-test-based dividend law period, is relatively low (adj. R^2 ranging between 0.143 and 0.168).

In regard to sub-sample period two, the net-assets-test-based dividend law period, Models 4 and 5 in Table 9 and Models 6 and 7 in Table 10 show that current period permanent earnings ($NIBFVA_{it}$) and lagged permanent earnings ($NIBFVA_{it-1}$) have statistically significant positive coefficients, while lagged dividends (DIV_{it-1}) and financial leverage ($LEVERAGE_{it}$) have

Table 10: Dividend Policy analysis - II

	The whole sample period		Sub-sample period One		Sub-sample period Two	
	2005-06 to 2013-14		Profit-test-based period 2005-06 to 2009-10		Net-Assets-test-based period 2010-11 to 2013-14	
Variables	**Model 6**	**Model 7**	**Model 6**	**Model 7**	**Model 6**	**Model 7**
Dependent Variable is **Changes in Dividends (Δ DIV $_{it}$)**						
Constant	0.010** (2.209)	0.011** (2.304)	0.010 (1.517)	0.010 (1.538)	0.008 (1.270)	0.009 (1.373)
Period Identifier (D)	-0.007 (-0.316)	-0.005 (-0.194)				
NIBFVA $_{it}$	0.167*** (5.703)	0.166*** (5.642)	0.250*** (6.425)	0.246*** (6.279)	0.076* (1.723)	0.077* (1.752)
NIBFVA $_{it-1}$	0.010 (0.329)	0.011 (0.388)	-0.079** (-1.981)	-0.076* (-1.881)	0.082* (1.878)	0.081* (1.851)
FVA $_{it}$	0.106*** (3.810)		0.119*** (3.761)		0.027 (0.786)	
FVA_IDT $_{it}$		0.047* (1.860)		0.061* (1.822)		0.031 (0.901)
D * FVA $_{it}$	-0.035 (-12.47)	0.009 (0.368)				
DIV $_{it-1}$	-0.434*** (-17.847)	-0.438*** (-17.975)	-0.362*** (-11.013)	-0.367*** (-11.095)	-0.523*** (-14.502)	-0.527*** (-14.791)
SIZE $_{it}$	0.006 (0.201)	-0.004 (-0.133)	0.002 (0.042)	-0.009 (-0.215)	0.026 (0.611)	0.019 (0.414)
LEVERAGE $_{it}$	-0.133*** (-4.791)	-0.131*** (-4.644)	-0.142*** (-3.717)	-0.132*** (-3.411)	-0.136*** (-3.387)	-0.139*** (-3.498)
GROWTH $_{it}$	0.014 (0.597)	0.023 (0.979)	0.018 (0.574)	0.033 (1.020)	0.013 (0.366)	0.015 (0.407)
CASH $_{it}$	0.006 (0.211)	0.007 (0.269)	0.003 (0.079)	0.009 (0.257)	0.004 (0.099)	0.003 (0.070)
Model Specifications						
p-value	0.000***	0.000***	0.000***	0.000***	0.000***	0.000***
Adjusted R^2	0.200	0.194	0.168	0.157	0.282	0.283
N	1496	1496	846	846	650	650

***, ** and * indicate statistical significance at the 0.01, 0.05 and 0.1 levels respectively (2-tailed).
t-statistics in parentheses.

statistically significant negative coefficients. These results show that, in net-assets-test-based dividend law period, fair value adjustments (FVA_{it} or FVA_IDT_{it}) have no distribution consequences. This is contrary to the predictions of hypothesis two and it leads to the rejection of hypothesis two.

These results affirm the relevance and validity of Lintner (1956)'s model in net-assets-test-based dividend law period as change in current period's dividend is well explained by current period permanent earnings ($NIBFVA_{it}$), lagged permanent earnings ($NIBFVA_{it-1}$) and lagged dividends (DIV_{it-1}), without any role of fair value adjustments (FVA_{it} or FVA_IDT it) in firms' dividend policy. The explanatory power of Models 4 to 7, in regard to the net-assets-test-based dividend law period, is relatively moderate (adj. R^2 ranging between 0.271 and 0.283).

These results show that, in net-assets-test based dividend law period, firms adopted a conservative approach and attached their dividend payouts necessarily with permanent earnings, excluding any transitory components, and maintained conventional association between earnings and dividends even though the changed dividend law abolished the statutory link between earnings and dividends. These results do not support the argument of Skinner (2008) that the association between cash dividends and permanent earnings has weakened due to increasing role of discretionary earnings components.

Chapter 6: Conclusion

This thesis contributes to the fair value literature by examining the effect of fair value adjustments on firms' dividend policy under two alternate dividend law settings. This is important, because fair value adjustments may bring volatility into reported earnings and stakeholders, for example managers and shareholders, need to assess the persistence of such adjustments and their implications for future earnings and dividend payouts. Firms' dividend payouts are also affected by dividend law, as it determines distributable resources that firms can payout as dividends. Stakeholders' assessment of persistence and distribution of fair value adjustments may differ across different dividend law regimes.

Therefore, this thesis establishes two hypotheses under two alternate dividend law settings. Under a profit-test-based dividend law regime where dividend payouts are legalistically attached to the reported earnings, this thesis hypothesises that, positive fair value adjustments will have no dividend consequences, if fair value adjustments are transitory and stakeholders correctly assess its nature. Under net-assets-test-based dividend law, the statutory link between earnings and dividends is abolished and firms may become less concerned about the distinction between permanent and transitory earnings components. Therefore, under the net-assets-test-based dividend law this thesis hypothesises that positive fair value adjustments will have distribution consequences.

This thesis uses Lintner's (1956) framework to examine the incremental association between fair value adjustments and dividend payouts. The hypotheses are tested using a sample of companies from the financial sector of Australian Securities Exchange (ASX). The Australian setting provides a unique opportunity to test both hypotheses under IFRS based reporting regime as Australia adopted IFRS in 2005 and in June 2010 the conventional profit-test-based dividend law was replaced by net-assets-based dividend law.

The results of the regression analysis suggest that under profit-test-based dividend law, contrary to the expectations, positive fair value adjustments are distributed, and accordingly hypothesis one is rejected. In respect of net-assets-test based dividend law period the results do

not show any significant favourable impact of positive fair value adjustments on dividend payouts, thus also leading to the rejection of hypothesis two. The results also show that irrespective of alternative dividend law regimes, current permanent earnings, lagged permanent earnings, lagged dividends and financial leverage remain key determinants of any changes in the current period's dividend payouts. This confirms the conventional understanding that firms maintain stable dividend policy and do not want to make momentary changes in dividend payouts (Lintner, 1956; Brav et al., 2005). Fair value adjustments are relevant in explaining changes in dividends under profit-test-based dividend law, but they lose their significance under net-assets-test based dividend law. The results also show that the statutory detachment of earnings and dividends under net-assets-test-based dividend law has not affected the conventional link between these two variables.

6.1 Contributions and Implications

This thesis provides several contributions to the literature and to the practice. First, this study combines two variables, i.e. dividend law and fair value adjustments, to examine firms' dividend policy. Prior to this study both of these variables are used separately in analysis of firms' dividend policies. Second, this study contributes to the extant literature examining the association between fair value accounting and firms' dividend policy under two alternate dividend law settings and IFRS based reporting environment. Third, this study affirms the validity of Lintner (1956) model under both dividend law regime, but it also identifies distribution of transitory earnings (fair value adjustments) under profit-test-based dividend law regime. Lastly, this study highlights the significance of the legal perspective in the formation of dividend policy especially when there is a change in the dividend law.

Implications of this thesis are threefold. Firstly, it affirms the findings of De Jager (2014) that firms distribute positive fair value adjustments. The results contradict the evidence provided by Goncharov and Van Triest (2011) that there is negative relationship between positive fair value adjustments and dividend changes. The results of this study are more relevant and generalizable for IFRS based reporting countries, because its sample includes financial instruments and financial sector firms which are extremely sensitive to fair values, and the credibility of ASX which is recognized as a well functioning stock market (World-Stock-

Exchanges, 2012). Secondly, within the Australian perspective this thesis provides the up to date evidence of the dividend payout policies of the Australian listed firms in the financial sector after the adoption of IFRS in 2005 and the change in the dividend law in 2010. Finally, this thesis may assist Australian regulators in evaluating the actual impact of the new dividend law on the dividend policies of listed Australian firms in the financial sector.

6.2 Limitations and Future Research Directions

There are a number of limitations of this study that restrain generalization of its findings. However, these limitations open a number of avenues for future research.

First, the sample of this study includes financial sector companies such as banks, insurance companies and real estate investment trusts. All of these companies operate in fairly distinctive industries with a peculiar nature of operations and finances. Therefore, the results of this study may not be applicable to companies from other sectors of the economy. Future research is needed with a much wider sample that includes companies from different sectors to establish generalizable results.

Second, the sample includes companies from seven distinct industries (refer to Table-4) of the financial sector with differences in nature of operations, applicable regulatory environment and with significant variations in firms' age. All these factors may require detailed analyses at the individual industry level rather than at the sector level to get a more precise and detailed understanding about firms' dividend policies. However, this thesis leaves this analysis for future research.

Third, this study incorporates fair values adjustments of financial instruments that fall within the scope of IAS-33, IAS-39 and IFRS-7, but it does not include fair value adjustments of any other assets and liabilities such as properties, investments in associates, obligations in relation to share based payments and insurance contract obligations. These other assets and liabilities and their fair value adjustments could be of vital significance to some industries such as real estate investment trusts, real estate development and management and insurance industry. Exclusion of fair value adjustments of these items from the analysis may have significantly undermined the effect of fair value adjustments in the results of this thesis.

Fourth, this thesis does not make a distinction between definitions of fair value and how fair values are determined (see appendices I & II). The way fair value is defined and determined (like mark-to-market or mark-to-model) may affect firms' assessment with regard to distribution of positive fair value adjustments.

Fifth, the results of this thesis are limited to the examination of the association of cash dividend payouts and fair value adjustments. This study does not include in its analysis alternate methods of payouts to shareholders, such as dividend reinvestment plans and share repurchase, which may be common in certain markets (Pattenden and Twite, 2008).

Lastly, the time and the word limit constraints restrained this thesis from conducting robustness tests and the test to address endogeneity issues. Robustness tests may have assessed the sensitivity of the results with respect to model specification (like one used by Brav et al., 2005 by not controlling for lagged permanent earnings), set of independent variables (such as including firms' AGE), and by using alternate scaling variables (such as, lagged assets, book value or the market value of equity).

References

Alexander, G., Speed, R., & Lee, J. (2010). Changes to the dividend payment rules: Allens.

Anderson, H., Welsh, M., Ramsay, I., & Gahan, P. (2012a). 'The evolution of shareholder and creditor protection in Australia: An international comparison. ' *International and Comparative Law Quarterly,* Vol(1), 171−207.

Anderson, H., Welsh, M., Ramsay, I., & Gahan, P. (2012b). 'Shareholder and creditor protection in Australia-A leximetric analysis. ' *Company and Securities Law Journal,* Vol(6), 366−90.

Andres, C., Betzer, A., Goergen, M., & Renneboog, L. (2009). 'Dividend policy of German firms: A panel data analysis of partial adjustment models. ' *Journal of Empirical Finance,* Vol(2), 175−87.

Bagwell, L. S., & Shoven, J. B. (1989). 'Cash distributions to shareholders. ' *Journal of Economic Perspectives,* Vol(3), 129−40.

Baker, H. K., & Smith, D. M. (2006). 'In search of a residual dividend policy. ' *Review of Financial Economics,* Vol(1), 1−18.

Barclay, M. J., Smith, C. W., & Watts, R. L. (1997). 'The determinants of corporate leverage and dividend policies. ' *Journal of Financial Education,* Vol, 1−15. doi: http://www.jstor.org.simsrad.net.ocs.mq.edu.au/stable/41948238?seq=1#page_scan_tab_contents

Barth, M. E. (2006). 'Including estimates of the future in today's financial statements. ' *Accounting Horizons,* Vol(3), 271−85.

Barth, M. E., & Landsman, W. R. (1995). 'Fundamental issues related to using fair value accounting for financial reporting. ' *Accounting Horizons,* Vol(4), 97−107.

BDO. (2014). Proposed changes to Corporations Act: Dividends and other proposals. Sydney, NSW: BDO Australia.

Beatty, A. (1995). The effects of fair value accounting on investment portfolio management: How fair is it? (Vol. 77, pp. 25−40): Federal Reserve Bank of St. Louis Review.

Beatty, A. (2007). 'How does changing measurement change management behaviour? A review of the evidence. ' *Accounting and business research,* Vol(Suppl.1), 63−71.

Ben-Zion, U., & Shalit, S. S. (1975). 'Size, leverage, and dividend record as determinants of equity risk. ' *Journal of Finance,* Vol(4), 1015−26.

Bhattacharya, S. (1979). 'Imperfect information, dividend policy, and “the bird in the hand” fallacy. ' *Bell journal of economics,* Vol(1), 259-70.

Boyer, R. (2007). 'Assessing the impact of fair value upon financial crises. ' *Socio-Economic Review,* Vol(4), 779−807.

Branston, P. (2014). Significant reforms to the dividends test. Perth: Herbert Smith Freehills.

Brav, A., Graham, J. R., Harvey, C. R., & Michaely, R. (2005). 'Payout policy in the 21st century. ' *Journal of Financial Economics,* Vol(3), 483−527.

Bremberger, F., Cambini, C., Gugler, K. P., & Rondi, L. (2013). Dividend policy in regulated firms: SSRN 2277595.

Brown, P., Clarke, A., How, J. C., & Lim, K. (2000). 'The accuracy of management dividend forecasts in Australia. ' *Pacific-Basin Finance Journal,* Vol(3), 309−31.

Caruana, J., & Pazarbasioglu, C. (2008). 'Revisiting valuation practices throughout the business cycle: some symmetry is needed. ' *Financial Stability Review,* Vol, 15−22.

Cavanough, J. (2011). 'A fistful of dividends. ' *Taxation In Australia,* Vol(9), 524−26.

Chen, W., TAN, H. T., & Wang, E. Y. (2013). 'Fair value accounting and managers' hedging decisions. ' *Journal of accounting research,* Vol(1), 67−103.

Choi, S. M., Johnson, S. A., Kim, H., & Nam, C. (2012). Dividend policy, investment, and stock returns: SSRN 1787615.

Christie, W. G. (1990). 'Dividend yield and expected returns: The zero-dividend puzzle. ' *Journal of Financial Economics,* Vol(1), 95−125.

Collins, D. W., Pincus, M., & Xie, H. (1999). 'Equity valuation and negative earnings: The role of book value of equity. ' *Accounting Review,* Vol(1), 29−61.

Cornett, M. M., Rezaee, Z., & Tehranian, H. (1996). 'An investigation of capital market reactions to pronouncements on fair value accounting. ' *Journal of Accounting and Economics,* Vol(1), 119−54.

Corporations Act 2001, Commonwealth of Australia (2000).

Corporations Legislation Amendment (Deregulatory and Other Measures) Bill (2014).

Coulton, J. J., & Ruddock, C. (2011). 'Corporate payout policy in Australia and a test of the life-cycle theory. ' *Accounting & Finance,* Vol(2), 381−407.

De Jager, P. (2014). For Banks Fair Value Adjustments Do Influence Dividend Policy: SSRN 2478702.

DeAngelo, H., & DeAngelo, L. (1990). 'Dividend policy and financial distress: An empirical investigation of troubled NYSE firms. ' *Journal of Finance,* Vol(5), 1415−31.

DeAngelo, H., DeAngelo, L., & Skinner, D. J. (1992). 'Dividends and losses. ' *Journal of Finance,* Vol(5), 1837−63.

DeAngelo, H., DeAngelo, L., & Skinner, D. J. (2008). 'Corporate payout policy. ' *Foundations and trends in finance,* Vol(2-3), 95−287.

Dittmar, A. K., & Dittmar, R. F. (2002). Stock repurchase waves: An explanation of the trends in aggregate corporate payout policy: SSRN 346548.

Easterbrook, F. H. (1984). 'Two agency-cost explanations of dividends. ' *The American Economic Review,* Vol, 650-59.

Ewang, F. N. (2007). 'Regulating share capital transactions and creditor protection: A multi-faceted model. ' *Australian Journal of Corporate Law,* Vol(2), 1−23.

Fama, E. F., & Babiak, H. (1968). 'Dividend policy: An empirical analysis. ' *Journal of the American statistical Association,* Vol(324), 1132−61.

Fama, E. F., & French, K. R. (1998). 'Taxes, financing decisions, and firm value. ' *The Journal of Finance,* Vol(3), 819-43.

Fama, E. F., & French, K. R. (2001). 'Disappearing dividends: Changing firm characteristics or lower propensity to pay? '. *Journal of Financial Economics,* Vol(1), 3−43.

Goergen, M., Renneboog, L., & Da Silva, L. C. (2005). 'When do German firms change their dividends? '. *Journal of Corporate Finance,* Vol(1), 375−99.

Goncharov, I., & Van Triest, S. (2011). 'Do fair value adjustments influence dividend policy? '. *Accounting and business research,* Vol(1), 51−68.

Grullon, G., & Michaely, R. (2002). 'Dividends, share repurchases, and the substitution hypothesis. ' *Journal of Finance,* Vol(4), 1649−84.

Healy, P. M., & Palepu, K. G. (1990). 'Effectiveness of accounting-based dividend covenants. ' *Journal of Accounting and Economics,* Vol(1), 97−123.

Higgins, R. C. (1972). 'The corporate dividend-saving decision. ' *Journal of Financial and Quantitative Analysis,* Vol(2), 1527−41.

Hitz, J.-M. (2007). 'The decision usefulness of fair value accounting: A theoretical perspective. ' *European Accounting Review,* Vol(2), 323−62.

Ho, H. (2003). 'Dividend policies in Australia and Japan. ' *International Advances in Economic Research,* Vol(2), 91−100.

Hoogervorst, H. (2013, 3 December). *Why the financial industry is different: The relevance of current measurement for the financial industry.* Paper presented at the Joint ICAEW and IFRS Foundation Financial Institutions IFRS Conference, London, United Kingdom.

Hung, M., & Subramanyam, K. (2007). 'Financial statement effects of adopting international accounting standards: The case of Germany. ' *Review of accounting studies,* Vol(4), 623−57.

Jagannathan, M., Stephens, C. P., & Weisbach, M. S. (2000). 'Financial flexibility and the choice between dividends and stock repurchases. ' *Journal of Financial Economics,* Vol(3), 355−84.

Jensen, G. R., Solberg, D. P., & Zorn, T. S. (1992). 'Simultaneous determination of insider ownership, debt, and dividend policies. ' *Journal of Financial and Quantitative Analysis,* Vol(2), 247−63.

Jensen, M. C. (1986). 'Agency cost of free cash flow, corporate finance, and takeovers. ' *Corporate Finance, and Takeovers. American Economic Review,* Vol(2).

Jensen, M. C., & Meckling, W. H. (1976). 'Theory of the firm: Managerial behavior, agency costs and ownership structure. ' *Journal of Financial Economics,* Vol(4), 305−60.

Kochiyama, T. (2011). *Economic Consequences of Fair Value Accounting and a Change in the Distribution Rule*. Working Paper. Center for Japanese Business Studies (HJBS), Graduate School of Commerce and Management. Hitotsubashi University. Japan. Retrieved from http://hermes-ir.lib.hit-u.ac.jp/rs/bitstream/10086/19122/5/070hibsWP_122.pdf

Kormendi, R., & Zarowin, P. (1996). 'Dividend policy and permanence of earnings. ' *Review of accounting studies,* Vol(2), 141−60.

Lambeth, J., & Mock, A. (2014). New dividends test proposed for companies: Mondaq.

Landsman, W. R. (2007). 'Is fair value accounting information relevant and reliable? Evidence from capital market research. ' *Accounting and business research,* Vol(Suppl.1), 19−30.

Lintner, J. (1956). 'Distribution of incomes of corporations among dividends, retained earnings, and taxes. ' *American Economic Review,* Vol(2), 97−113.

North, D. C. (1990). *Institutions, institutional change and economic performance*. Cambridge: Cambridge University Press.

Olson, M. (1965). *The logic of collective action: Public goods and the theory of group*. Boston: MA: Harvard University Press.

Pattenden, K., & Twite, G. (2008). 'Taxes and dividend policy under alternative tax regimes. ' *Journal of Corporate Finance,* Vol(1), 1−16.

Penman, S. H. (2003). 'The quality of financial statements: Perspectives from the recent stock market bubble. ' *Accounting Horizons,* Vol(Suppl.), 77−96.

Penman, S. H. (2007). 'Financial reporting quality: is fair value a plus or a minus? '. *Accounting and business research,* Vol(Suppl. 1), 33−44.

Plantin, G., Sapra, H., & Shin, H. S. (2008). 'Marking-to-Market: Panacea or Pandora's Box? '. *Journal of accounting research,* Vol(2), 435−60.

Ramalingegowda, S., Wang, C.-S., & Yu, Y. (2013). 'The role of financial reporting quality in mitigating the constraining effect of dividend policy on investment decisions. ' *The Accounting Review,* Vol(3), 1007-39.

Rees, W. P. (1997). 'The impact of dividends, debt and investment on valuation models. ' *Journal of Business Finance & Accounting,* Vol(7-8), 1111−40.

Routledge, J., & Slade, P. (2003). 'The company dividend restriction: Does it promote good corporate governance? '. *Company and Securities Law Journal,* Vol, 447−56.

Rozeff, M. S. (1982). 'Growth, beta and agency costs as determinants of dividend payout ratios. ' *Journal of financial Research,* Vol(3), 249−59.

Skinner, D. J. (2008). 'The evolving relation between earnings, dividends, and stock repurchases. ' *Journal of Financial Economics,* Vol(3), 582−609.

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

Vinals, J. (2008). 'Improving fair value accounting. ' *Financial Stability Review,* Vol, 121−30.

Watts, R. L. (1977). 'Corporate financial statements: A product of the market and political processes. ' *Australian journal of management,* Vol(1), 53−75.

Williamson, O. E. (1975). *Markets and hierarchies: antitrust analysis and implications*. New York, NY: : The Free Press.

World-Stock-Exchanges. (2012). Top Ten Stock Exchanges: World Stock Exchanges.

Zhang, H. (2009). 'Effect of derivative accounting rules on corporate risk-management behavior. ' *Journal of Accounting and Economics,* Vol(3), 244–64.

Appendix - I: Accounting and Disclosure requirements of IFRS

There are four reporting standards IAS 32, IAS 39, IFRS 7 and IFRS 9[12] that collectively deal with the accounting and the reporting of financial instruments. However, from 1 January 2013 in respect of fair value accounting IFRS 13[13] applies when another IFRS [including IAS 32, IAS 39, IFRS 7 and IFRS 9] requires or permits fair value measurement or disclosures. Table APX-1 at the end of this appendix summarizes some key details about these standards to help understand their scope and the applicability to different reporting periods.

According to IAS 39 [14], all financial assets and financial liabilities are initially measured at fair value. For subsequent measurement IAS 39 classifies financial assets into four categories and financial liabilities into two categories. However, from these categories only following are subsequently measured at fair values:

1) Financial assets at fair value through profit or loss
2) Available-for- sale financial assets (AFS)
3) Financial liabilities at fair value through profit or loss

Any gains or losses arising from fair value adjustments in relation to item (1) and (3) above are reported into income statement. In respect of AFS financial assets, fair value adjustments are initially recognized into equity and subsequently on de-recognition of AFS financial assets the cumulative gain or loss is recycled to income statement. Further, fair value adjustments in relation to hedge accounting (for both hedging instrument and hedged item) are also recognized in the income statement in accordance with the requirements of IAS-39.

In respect of the above mentioned categories of financial assets and financial liabilities, IFRS 7 requires disclosure of any gains or losses arising from fair value adjustments in the

[12] IAS 32 Financial Instruments: Presentation
IAS 39 Financial Instruments: Recognition and Measurement
IFRS 7 Financial Instruments: Disclosures
IFRS 9 Financial Instruments

[13] IFRS 13 Fair Value Measurement

[14] IFRS 9 is introduced to replace IAS 39 but the mandatory application date of all the versions of IFRS 9 falls beyond the sample period of this study. Therefore for this study, IFRS 9 is not relevant as it is not applied in the preparation of financial statements of the sample firms during the sample period.

income statement, but does not require separate disclosure of the realized gains or losses relating to fair value adjustments. On the basis of measurement and disclosure requirements of IAS 39 and IFRS 7, this study incorporates into analysis such financial instruments whose fair value adjustments are reported in the income statement.

Prior to implementation of IFRS 13, fair values of the financial instruments were determined in accordance with IAS 39 using following hierarchy:

1) Quoted market prices for actively traded financial instruments
2) Valuation techniques to determine fair values of financial instruments that are not actively traded
3) Cost less impairment in respect of equity instruments whose fair values cannot be determined using any of the above mentioned two methods

From 1 January 2013, IFRS 13 is applied to determine fair values of financial instruments and other financial statement items. IFRS 13 follows a 'fair value hierarchy' that categorizes inputs used in valuation techniques into following three levels:

- **Level 1** inputs - quoted prices in active markets for identical assets or liabilities that the entity can access at the measurement date
- **Level 2** inputs - inputs other than quoted market prices included within Level 1 that are observable for the asset or liability, either directly or indirectly
- **Level 3** inputs - unobservable inputs for an asset or liability

The above hierarchy assigns the highest priority to (unadjusted) quoted prices in active markets for identical assets or liabilities while the lowest priority is given to unobservable inputs.

This study does not use or make distinction between fair value definitions and how fair values are determined, therefore, change in the definition and the shifting of fair value determination from IAS 39 to IFRS 13 has no significance and relevance for this study.

Table APX-I

IFRS relating to financial instruments and fair value accounting

IAS 32 Financial Instruments: Presentation

First time Implementation: Annual periods beginning on or after 1st January 1996
Original title - IAS 32 Financial Instruments: Disclosures and Presentation

Revision(s) with implementation

1 January 2001: Certain changes were introduced as a result of the introduction of IAS 39
1 January 2005: IAS 32 (2003) revised version was implemented
1 January 2007: With the introduction of IFRS 7 the scope of IAS 32 is reduced to presentation aspects only while the disclosures were moved to IFRS 7 and the title of IAS 32 was altered
2009 to 2014: Number of minor amendments were made and implemented during this period

IAS 32 deals with:

- Establishing principles for classifying and presenting financial instrument as a liability or as equity
- Prescribing the accounting for treasury shares
- Prescribing conditions for offsetting assets and liabilities in the balance sheet

IAS 39 Financial Instruments: Recognition and Measurement

First time Implementation: Annual periods beginning on or after 1st January 2001

Revision(s) with implementation

1 January 2005: IAS 39 (2004) revised version was implemented.
2006 to 2009: Number of amendments were made and implemented.
2010 to 2013: Three [partial] versions of IFRS 9 were introduced during this period each time replacing certain requirements of IAS 39. However, the initial mandatory implementation date was set to 1 January 2013 which was subsequently revised to 1 January 2015 but was eventually removed by the final version of IFRS 9 released in 2014 with compulsory implementation date of 1 January 2018.

IAS 39 deals with, among other things, classification of financial assets and financial liabilities, initial recognition of financial assets and liabilities, measurement subsequent to initial recognition, impairment, de-recognition, and hedge accounting.

Continued to next page .....

..... Continued from previous page

IFRS 7 Financial Instruments: Disclosures

First time Implementation: Annual period beginning on or after 1st January 2007

Revision(s) with implementation

2008 to 2015: Number of amendments were made and implemented. Few amendments will apply with the application of IFRS 9 in 2018.

IFRS 7 requires certain disclosures to be presented by category of instrument based on the IAS 39 measurement categories. The two main categories of disclosures required by IFRS 7 are:

1) Information about the significance of financial instruments.
2) Information about the nature and extent of risks arising from financial instruments

IFRS 9 Financial Instruments

First Partial version in 2009: Original implementation date 1st January 2013, later removed
Second Partial version 2010: Original implementation date 1st January 2013, later removed
Third Partial version 2013: This version removed the implementation date of earlier versions

IFRS 9 (2014) complete version: Implementation in annual period beginning on or after 1 January 2018

IFRS 9 is introduced to replace IAS 39.

For this study IFRS 9 has no relevance.

IFRS 13 Fair Value Measurement

First time Implementation: Annual periods beginning on or after 1 January 2013

Revision(s) with implementation: Annual periods beginning on or after 1 July 2014

IFRS 13 Fair Value Measurement applies to IFRSs that require or permit fair value measurements or disclosures and provides a single IFRS framework for measuring fair value and requires disclosures about fair value measurement. The Standard defines fair value on the basis of an 'exit price' notion and uses a 'fair value hierarchy', which results in a market-based, rather than entity-specific, measurement.

Appendix - II: Definition of Key Terms

Dividends

For this study purposes the term dividends is defined as the sum of all cash dividend that may include: regular cash dividend, interim cash dividends or special cash dividends.

Fair Value

Since 1st January 2013 fair value is defined by IFRS 13 in the following manner:

> The price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date.

However, prior to 2013 and for major part of the sample period of this study IAS 32 defined fair value in respect of financial instruments in the following manner:

> The amount for which an asset could be exchanged, or a liability settled, between knowledgeable, willing parties in an arm's length transaction.

This study does not use or make distinction between fair value definitions and how fair values are determined; therefore, change in the definition has no significance for this study. Accordingly, for the purpose of this study, the term fair value can be defined in terms of any one or both of the definitions provided above.

Financial instruments

IAS 32 defines financial instruments as:

> A contract that gives rise to a financial asset of one entity and a financial liability or equity instrument of another entity.

Detailed definitions of financial asset and financial liability can be referred either from IAS 32 or IAS 39. For this study, only those financial instruments are taken into consideration whose fair value adjustments in the form of gains or losses are reported in income statement.