Goodwill Impairment Charges under (NZ) IAS 36: Role of Executives' Incentives and Corporate Governance

Jega Balachandra

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Attestation of Authorship

I hereby declare that the submission is my own work and that, to the best of my knowledge and belief, it contains no material previously published or written by another person, nor material which to a substantial extent has been submitted for the award of any other degree or diploma of a university or other institution of higher learning.

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Jega Balachandra

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Abstract

This study aims to examine whether a manager uses discretion in determining impairment loss on goodwill in the years subsequent to the adoption of International Accounting Standards (IAS) 36, based on executive incentives and corporate governance characteristics. This study was conducted on 66 New Zealand companies which were listed on the New Zealand (Stock) Exchange (NZX) from 2008 – 2010. The research design is developed as a hypothetical model to test the question of whether bonus-based incentives, in-the-money options, and strength of board influence goodwill impairment charges. This study uses a dichotomous logistic regression model to predict the goodwill impairment loss (GIL) with economic performance, executive incentives and corporate governance explanatory variables. Test results reveal that managers' reporting incentives affect their decisions to recognise goodwill impairment when the managers have sizable holdings of in-the-money stock options. Results indicate a strong, positive association between managers' discretion to recognise the goodwill impairment loss and the strength of corporate governance characteristics, especially the percentage of outside directors' ownership. The evidence found in this study is consistent with prior literature showing that strong corporate governance constrained executive incentives in manager's decisions to recognise goodwill impairment or not.

1.0 Introduction

International financial reporting standards (IFRS) fundamentally changed accounting for goodwill. The New Zealand (NZ) equivalent to IFRS, adopted in NZ from 1 January 2005, has been mandatory from 1 January 2007. The International Financial Reporting Standard (IFRS) 3, which regulates business combinations, and International Accounting Standard (IAS) 36, which regulates impairment of assets, abolished the arbitrary and systematic amortisation method and required annual impairment testing of goodwill. Instead of being subject to annual amortisation, goodwill balances are subject to impairment as at each reporting year or whenever there is an indication on the value of goodwill. The objective of (NZ) IAS 36 was to give flexibility to managers, and managers are likely to charge the impairment on goodwill based on the economic conditions of the firm (Godfrey & Koh, 2009). Standard setters expect that firms will be able to provide reliable and relevant information in relation to the impairment test compared with the amortisation regime to accounting users, thereby allowing them to understand any decline in the value of goodwill. Therefore, this new accounting treatment should be more aligned with the decision-making needs of financial report users (Wines, Dagwell, & Windsor, 2007).

Carlin, Ji and Finch (2010) and Li, Shroff, Venkataraman and Zhang (2011) documented that the (NZ) IAS 36 has significantly improved the value relevance of accounting information for the goodwill and impairment test. They state that the impairment test closely aligns with real economic decline in goodwill value rather than an arbitrary allocation.

In contrast, accounting literature also highlights a range of strong doubts and concerns about the (NZ) IFRS goodwill impairment testing regime. In fact, the new (NZ) IFRS treatment introduces considerable scope for uncertainty and there is greater opportunity

for creative accounting (Wines et al., 2007). Furthermore, (NZ) IAS 36 is a standard that involves substantial management judgment (Pettersen & Plenborg, 2010) and bias (Guler, 2006). For example, the first potential difficulty is the identification of a cash generating unit (CGU) and the assessment of the recoverable amount of the unit. Determining the recoverable amount involves subjective estimations and numerous assumptions. Similarly, the calculation of the net present value for each of the individual CGUs becomes more complex, time consuming and costly. Therefore, it becomes subject to more ambiguity, interpretation and management discretion (Pettersen & Plenborg, 2010; Wines et al., 2007; Zang, 2008). Watts (2003) characterises (NZ) IAS 36 (and United States (US) broad equivalent statement of financial accounting standard (SFAS) 142) as an error in judgement likely to leave open a pathway to aggressive earnings management and systematic over-valuing of assets. This view is supported by many researchers, one author recently offering the view that the (NZ) IFRS impairment framework is likely to yield misleading results and reduces the quality of decision making (Lonergan, 2005).

The objective of this study is to examine the factors that influence managers' choices in recognising goodwill impairment losses (GIL) in NZ firms following the compulsory adoption of (NZ) IAS 36 for the period 2008 – 2010. This study focuses on executive incentives and corporate governance characteristics. This study has found that many critics examined GIL in relation to SFAS 142, based in the United States (US), and analysed the effects in the transition period. In particular, executive incentives are less likely to be an influence on GIL in the transition period compared to subsequent periods (Beatty & Weber, 2006). My study focuses on the post-transition period of the standard mandatorily adopted in NZ on or after 1 January 2007. Goodwill impairment losses may be written off as a result of accounting changes during the transition period as a below-line item in the income statement, but GIL recognition in the years subsequent to the

adoption of the standard (NZ) IAS 36 will be an above-line item (Beatty & Weber, 2006). In this case, GIL will have a direct impact on executive stock options and other incentives. This may mean that if managers have concerns regarding the negative valuation consequences of GIL on firms' stock prices, management could use the accounting discretion granted by (NZ) IAS 36 to mislead users of financial statements on the underlying value of reported goodwill (Guler, 2006). There are several studies that have examined management's discretion to recognise goodwill based on executive bonus plans, debt covenants, Chief Executive Officer (CEO) tenure, equity markets and economic determinants. However, only a few of these studies, for example Carlin & Finch (2010), examined managers' discretion to recognise goodwill in the years subsequent to the adoption of (NZ) IAS 36 based on Australian and NZ perspectives. Extending these studies, my study examines the roles of stock option compensation and boards of directors in managers' decisions to record GIL. In other words, transition GIL are below-the-line items, and investors are not placing higher weighting on them compared to subsequent periods, where GIL charges are above-line items.

First, executive incentives, like bonus plans, are heavily reliant on earnings. Recording GIL reduces earnings and executive wealth. This is consistent with the empirical evidence that CEO compensation incentives are associated with non-impairment (Ramanna & Watts, 2011). In addition, Watts (2003) argues that agency theory predicts managers will use the discretion permitted by (NZ) IAS 36 in circumstances where they have agency-based motives to act opportunistically in terms of their incentives.

Second, GIL may have a significant and negative impact on stock prices. Goodwill impairment loss is a signal to the market and suggests the conveyance of private information from managers to the market. It reveals bad news to investors and changes the market expectation of a firm's future cash flows and risk (Chen, Kohlbeck, & Warfield, 2004; Z. Li et al., 2011). The reduction of stock prices impacts on executive

incentives including in-the-money options (Zang, 2008). Therefore, I consider in my study the role of in-the-money options in influencing managers to use accounting discretions granted by (NZ) IAS 36 to make a specific accounting choice for non-impairment, in order to protect their share prices.

Third, my study focuses not only on executive incentives but also on corporate governance characteristics, such as percentage of inside directors on the boards, percentage of outside directors' ownership, percentage of inside directors' ownership, and percentage of institutional holdings. Both of these explanatory variables are linked. Corporate governance variables suggest that CEOs earn greater compensation when governance structures are less effective (Core, Holthausen, & Larcker, 1999).

Empirical results suggest that, while managers with incentives are less likely to recognise GIL, strong corporate governance constrains these incentives (Guler, 2006). Furthermore, the US generally accepted accounting principles (GAAP) and the Financial Accounting Standard Board (FASB), are moving towards a principle-based standard from a rule-based standard and fair value accounting. These standards provide an avenue for managerial discretion in implementing the standards, especially (NZ) IAS 36, that is associated with strong corporate governance.

Prior literature also documents that corporate governance provides a structure for monitoring the actions of top management (Beasley, 1996). Beasley (1996) empirical test on 75 fraud firms and 75 non-fraud firms in the US confirms that increases in independence in the board composition reduces financial statement fraud and also constrains incentives. Weak corporate governance is associated with financial statement fraud. Evidence of this is seen through accounting scandals such as Enron, which illustrates lack of oversight of accounting practices.

The Sarbanes-Oxley Act, 2002 introduced new requirements for independence and financial expertise in corporate governance, especially in audit committees (Guler, 2006). Prior research indicates that fair value calculations are based on subjective estimations and assumptions, and that these measurements are inherently imprecise. If the firm has a strong audit committee, it can assess the firm's management capabilities and evaluate whether management can perform appropriate valuation and assumptions to determine fair values of CGUs (Wines et al., 2007).

New Zealand (Stock) Exchange (NZX) rules 3.6.2 (C) (NZX, 2010) also require that firms have independent directors on the board, especially within the audit committee. Based on the studies cited above, it would appear that strong corporate governance is required for effective and independent oversight management.

Ramanna & Watts (2011) state that firms' level economic and management's private information allow managers to act opportunistically in choosing a favourable accounting treatment to record either impairment or non-impairment. In addition, Ramanna and Watts (2011) multivariate tests found further evidence that debt-covenant and CEO compensation incentives are associated with non-impairment. Consistent with this, I have chosen the following explanatory variables to examine executive incentives. They are: CEO changes, bonus-to-salary ratios, in-the-money options and CEO's cash salary.

There are two possible charges that signalling and contracting costs have a negative impact on stock prices. We have already discussed the signalling with option incentives; similarly, contracting cost also indicates that GIL may have an adverse impact on debt contracts and other contracts of a firm (Watts & Zimmerman, 1990). As a result, the firm may lead more binding debt covenants that further exacerbate sub-optimal decision making. This further lowers earnings and causes a decline in the market price. In this situation, managers are highly likely to avoid debt covenant constraints by using

management discretion to slacken the rigidity of the debt covenants (Zang, 2008). This suggests that management preferences for accounting choice are driven by a self-interested desire to maximise personal compensation (Astami, Hartadi, & Tower, 2006).

In the logistic regression test, I examined the evidence that non-impairment results in an increase in economic determinants, executive incentives and weaker governance characteristics. The present study used data from 66 companies listed on the NZX during the 2008 – 2010 post-transition period regarding (NZ) IAS 36 write-off. I found that the results revealed the economic determinants, that change in return on assets (ΔROA) and change in sales (ΔSales) are negatively related, and book-to-market value (B/M$_t$) is positively associated with GIL. Similarly, firms that have one reporting unit or few reporting units recognise GIL, compared to firms which have many CGUs. Also, my study finds that write-offs under (NZ) IAS 36 are negatively associated with in-the-money option holdings of firms' executives.

In addition, during the 2008 – 2010 period, only 5% of sampled firms made write-offs for their goodwill. These results are consistent with the theory (as explained above) that managers behave opportunistically to delay GIL during the post-transition period, as opposed to the transition period. Managers record GIL as a onetime below-the-line treatment during the transition period and above-the-line in the post-transition period (Guler, 2006). This result implies that the study of GIL in the post-transition period is both important and timely. Overall, the results suggest that when managers have substantial holdings of in-the-money option incentives, they are reluctant to recognise GIL.

Furthermore, strong corporate governance characteristics can be used to monitor and provide effective oversight of these incentives. Thus, this study contributes to the existing GIL literature by examining how multiple forces affect accounting choice, and

addresses how this managerial opportunism should be constrained by the oversight role of boards.

The study proceeds as follows. In section 2, I review the background of goodwill and the main findings related to management discretion and goodwill impairment from prior research. Section 3 provides a description of my hypothesis. Section 4 describes the data sample and research design. Section 5 describes the results and the implications, and conclusions follow in section 6.

2.0 Literature Review

This chapter analyses the background of goodwill and how the (NZ) IFRS 3 and (NZ) IAS 36 improve the accounting treatment of goodwill. On the other hand, the new approach provides the opportunity for management discretion to make accounting choices that recognise the amount and timing of GIL. These accounting choices are likely to be economically important to management when they have reporting incentives. General difficulties with the new goodwill accounting treatment include the issue of how executive incentives avoid or delay GIL, and challenges for corporate governance, are outlined in this section.

2.1.   Accounting for Goodwill Prior to (NZ) IFRS 3 and (NZ) IAS 36

There has been a continuous debate over many decades that goodwill is an asset (Astami et al., 2006; Bugeja & Gallery, 2006; Carlin et al., 2010). Goodwill is defined as (NZIFRS 3 & NZIAS 38) future economic benefits arising from other assets that are not capable of being individually identified and separately recognised (Alfredson, Leo, Picker, Pacter, & Radford, 2005). Goodwill occurs from synergy (Churyk, 2005), and as a result, firms can save costs from economic scale. It increases sales and lowers the cost of capital. Therefore, it generates future economic benefits and is accepted as an asset from business (Bugeja & Gallery, 2006) based on cost principles: assets and liabilities are to be reported at fair value, not cost. This principle is consistent with internally generated goodwill which cannot be recorded as an asset because it is not represented as an identifiable resource (Gore & Zimmerman, 2010).

The other significant question is whether goodwill should be written off. Amortisation has been the method used internationally to write off goodwill since 1970 (Davis,

2005). This method is easy to apply, systematic, and allows assessment of its impact on earnings with greater accuracy (Pettersen & Plenborg, 2010). On the other hand, it is arbitrary, done automatically and it is impossible to estimate its useful life as goodwill is not a separable identifiable asset. Moreover, amortisation is not associated with stock prices (Pettersen & Plenborg, 2010; Zang, 2008) and does not provide value-relevant information (Wyatt, 2008).

Based on conservative accounting practices, assets' real value should be reflected on the balance sheet; goodwill has a significant positive relationship with a firm's market value (Chauvin & Hirschey, 1994). IAS 36 is intended to improve financial reporting transparency by reflecting more clearly the underlying economics of goodwill assets, which should lead to a better understanding for users of financial statements. Improved reporting practices highlight the real value of this asset (Sevin, Schroeder, & Bhamornsiri, 2007). Prior to adoption of the new standards, there was lack of uniformity in goodwill accounting treatment, especially in the areas of selection of useful life and pooling interest method accounting. This older method was allowed by a few countries and created differences across countries before the adoption of the (NZ) IFRS 3, which regulates business combinations, and (NZ) IAS 36 (Astami et al., 2006; Davis, 2005).

Davis (2005) found that the firms successfully managing their acquisitions had to periodically amortise, even though the firm's value increased. In contrast, it was possible for firms with underperforming or troublesome acquisitions to report less amortisation than the firm's internal or external circumstances might dictate. (NZ) IAS 36 (similar to SFAS 142) resolved both concerns.

2.2. Management Discretion and Impairment

2.2.1 Purchased goodwill and impairment

The new (NZ) IFRS 3 requires that goodwill has to be recognised at the time of business combination and eliminates the pooling of interest method. However, purchased goodwill raises a question about whether the acquisition price is appropriate or overpriced (Davis, 2005; Wyatt, 2008). This is because agency theory recognises that managers have an incentive to act in their own self-interest to the detriment of stockholders. Davis (2005) suggests that firms' growth in pre-tax income, earnings per share and stock price were all significantly lower after the acquisition. Confirming that, recorded goodwill for these firms was significantly higher, suggesting that the price paid for these acquisitions ultimately proved to be too high. On the other hand, Churyk (2005) suggests that goodwill is not typically overvalued when initially recorded, supporting the contention that systematic amortisation is not warranted.

Goodwill is one of the company's key intangible assets with a higher level of perceived risk and uncertainty, and has a significant impact on the level of agency costs (Astami et al., 2006). McCarthy and Schneider (1995) suggest that goodwill is a significant contributor in debt/equity and debt/asset ratios. Moreover, management prefers to choose accounting treatment that is driven by a desire to maximise management compensation, in order to alleviate the tightness of debt covenant restrictions and to minimise the possibility of regulatory interference (Watts & Zimmerman,1990).

The first criticism is concerned with estimating the contingent liability. It is not a reliable measure to calculate the fair value of goodwill at acquisition, and this allows a great amount of goodwill to be disclosed on the balance sheet and challenges auditors to verify its reliability (Wines et al., 2007).

However, most studies found this accounting treatment of purchase of goodwill under (NZ) IAS 38 was value-relevant (Wyatt, 2008). On the other hand, it is less value-relevant compared with other intangible assets, and it is difficult to monitor by outsiders. Therefore, it is thought that management discretion is high in recording intangible assets, especially in goodwill compared with other intangible assets (Wyatt, 2005). Furthermore, Wyatt's (2008) study provides new evidence that purchased goodwill is value- relevant in countries where management has limited discretion to report more precise indicators of future benefits.

 The purpose of (NZ) IAS 36 (similar to SFAS 142, 2001) is to give flexibility to managers, who are likely to calculate impairment on goodwill based on the economic condition of the firm to provide better information than amortisation, which was the previous method used (Pettersen & Plenborg, 2010). It is consistent with Donnelly and Keys' (2002) argument that goodwill impairment testing is operational and adequately captures any decline in the value of goodwill in a more meaningful manner than previous accounting treatments. This method satisfies the needs of different users of financial statements for better information about intangible assets than the previous amortisation, which is automatically written down irrespective of individual situations (Wines et al., 2007).

Wyatt (2008) concluded that purchased goodwill balance is overstated on average at acquisition and raised two issues: does purchased goodwill contribute to future performance and if so, when? The second issue is, whether goodwill is related to stock returns and financial performance changing over time, and how rapid is this change? The impairment regime recommends annual impairment testing if events or changes in circumstances indicate that the carrying amount of an asset obtained in acquisition may not be recoverable. Therefore, annual impairment testing provides value-relevant information, and impairment loss is negatively associated with stock prices

(Lhaopadchan, 2010; Wines et al., 2007; Wyatt, 2008; Zang, 2008). It means the impairment loss is signalling to investors that the firm's future cash flow will be affected. Therefore, the firm's risk level will increase. In this situation, the new impairment regime accurately assesses any actual decline in the value of goodwill and gives greater insight into its economic value (Zang, 2008).

On the other hand, several empirical studies found many disadvantages and inconsistencies in calculating impairment loss. These inconsistencies open the floodgates to accounting manipulation.

First, (NZ) IAS 36 is a standard that involves substantial judgement, for example in identification of CGU, allocation of goodwill to CGU, calculation of fair value, and value in use (measurement). Second, conducting a detailed test for impairment on every asset and associated goodwill from initial acquisition to post-acquisition for each reporting period, may be time consuming and costly (Carlin et al., 2010).

Third, (NZ) IAS 36 is a complicated standard that requires specific knowledge of valuation techniques (Pettersen & Plenborg, 2010). Fourth, heavy management flexibility can be used to manipulate earnings, either by ignoring impairment when it occurs, or by recognising it only when it is advantageous for the firm to do so. This manipulation affects timing of impairment (Zang, 2008). In other words, the standard leads to an aggressive earnings management and systematic asset value over statements, and a litigation effect on conservatism. Moreover, inclusion of goodwill on balance sheets and changes in goodwill in income statements, make accounting numbers "soft" and open to fraud and manipulation (Watts, 2003). According to Wines et al. (2007), goodwill accounting is also fraught with subjectivity and ambiguity, leading to more serious complications like high uncertainty and therefore creative accounting.

2.2.2 Identifying the reporting units

First, the (NZ) IAS 36 provides opportunity for management discretion to make accounting choices on how to define the cash generating unit (CGU) (Beatty & Weber, 2006; Pettersen & Plenborg, 2010; Zang, 2008). A CGU is the smallest identifiable group of assets that generates cash flows independent of cash flows from other assets or group of assets (IAS 36, 6), and (NZ) IAS 36, 80b states that a unit or group of units shall not be larger than an operating segment. Despite this, (NZ) IAS 36 gives limited guidance on how to define a CGU. Therefore, some firms do not define CGUs, and those who do identify the CGUs, do not comply with the requirements (Pettersen & Plenborg, 2010). Moreover, Pettersen and Plenborg's analysis of impairment practice among 76 Danish listed companies revealed approximately 25% of these firms chose the segments as CGU, and 36 firms had more CGUs than segments. This does not meet the standard that a CGU cannot be larger than an operating segment.

In addition, the number of CGUs varied considerably across the firms, and there was lack of disclosure by the firm on how the CGU is defined. The lack of disclosure of CGUs is to the detriment of transparency, comparability of financial ratios across firms, and the quality of information, which leads to high risk. There is a potential risk for aggregation in CGU in definition, because GIL could potentially be avoided by aggregating units at a high level. This argument is consistent with (Carlin et al., 2010). Their findings suggest that many firms define a greater number of CGU than segments, and it is less likely that the basic requirement of disaggregation is being executed in practice, as required.

The CGU is a fundamental part of the (NZ) IFRS goodwill impairment testing regime. Cash generating units are not a problem if the firm has one or a few, but the testing regime is very complex when a company acquires another entity and increases their number of subsidiaries, divisions and/or branches. Furthermore, if the subsidiary is

broken down into a number of individual CGUs, the estimation of fair value is extremely subjective (Wines et al., 2007).

Furthermore, there is no specific requirement to disclose information by reporting units. This deficiency may result in investors not being able to completely assess a company's financial performance and sustainability, leading to a lack of information symmetry (Godfrey & Koh, 2009; Sevin et al., 2007).

2.2.3 Allocation of goodwill to each reporting unit

Allocation of goodwill describes how much goodwill to assign to each reporting unit. The requirement of (NZ) IAS is that the level of benefits expected from each reporting unit from the synergies of the acquisition. If there is a single reporting unit, goodwill is easy to allocate, and firms are less likely to have management discretion (Pettersen & Plenborg, 2010). Pettersen & Plenborg (2010) stated that the majority of Danish firms do not allocate goodwill to a CGU or group of CGUs in a reasonable or consistent way. Moreover, if management would like to avoid impairment loss in the future, they identify the CGU at higher levels to aggregate the amount of goodwill.

In Australia, the tendency for many firms is to allocate the goodwill on the basis of larger or combined CGUs, rather than smaller CGUs, which can lead to minimising future impairment write-downs, and it is possible to create internally-generated goodwill (Wines et al., 2007).

2.2.4 Fair value estimates

Fair value is defined in the (NZ) IFRS 3, (NZ) IAS 16, and (NZ) IAS 38 as the amount for which an asset could be exchanged, or a liability settled between knowledgeable, willing parties in an arm's-length transaction (Alfredson et al., 2005). Unfortunately, determination of the fair value of an asset in individual situations is not always straight-forward. There is no active market for goodwill, and when capital markets are not

perfect or are incomplete and that fair value concept is ambiguous with respect to measurement and valuation, it is possible the fair value will vary in different situations (Alfredson et al., 2005; Wines et al., 2007).

The fair value of goodwill, as with any asset, should be equal to the present value of future cash flows expected to be gained from the goodwill asset (Li & Sloan, 2011). Therefore, most firms use value-in-use (present value of future cash flows) to calculate the fair value of CGU (Comiskey & Mulford, 2010; Pettersen & Plenborg, 2010). "Value in use is the present value of the future cash flows expected to be derived from an asset or CGU" (NZIAS 36, 6).

However, the value-in-use calculation excludes taxation effects, financing and future restructuring costs and benefits. This, unfortunately, leads to both conceptual and practical errors (Lonergan, 2005).

Similarly, using value-in-use calculations, the present value of cash flow calculations for each unit are more complex than calculating fair value less cost to sell. The estimation of the present value of future cash flows can also vary dramatically, depending on the underlying assumptions about discount rate and future time periods. These are considerably subjective and ambiguous. An associated concern relates to cost and time issues. Conducting a detailed impairment test for each CGU and on every applicable asset and associated goodwill at the end of reporting period is, in many cases, time consuming and costly. For this reason, company management has an incentive to recognise CGUs at as high a level of aggregation as possible (Carlin et al., 2010; Lonergan, 2005; Wines et al., 2007). Moreover, "recoverable amount" is measured based on hypothetical fair value, and measurement error in fair value estimates can exist, affecting relevance and reliability (Wines et al., 2007). This is consistent with the European Financial Reporting Advisory Group's (EFRAG) argument that the

standard would introduce unreliable measurements of the recoverable amount of goodwill (Pettersen & Plenborg, 2010).

Additionally, the studies cited above indicate that recoverable amount is calculated as the higher of both methods: fair value less cost to sell and value in use. The estimation of the fair value less cost to sell for each of CGUs can be extremely subjective to estimate when the subsidiary is broken down into a number of individual CGUs. Similarly, the calculation of the value in use for each of the individual CGUs becomes far more complex, and can therefore can be subject to ambiguous interpretation and management discretion (Wines et al., 2007).

Furthermore, Wines et al. (2007) indicate that an estimate of value in use can be maximised by estimating annual cash flow and salvage value of the CGU at the maximum amount possible and adopting the lowest possible discount rate. Eventually, management can bias the estimated recoverable amount of a CGU in an upward direction to avoid GIL recognition.

Carlin & Finch (2010) suggest that (1) inappropriate discount rates are being employed in the impairment testing process used by large reporting entities in Australia and New Zealand, (2) some reporting entities may use lower than appropriate discount rates, and (3) using a single discount rate for all CGUs rather than aligning with the standard (NZ) IAS 36 is common practice. (NZ) International Accounting Standard 36, paragraph19 requires that the discount rate be asset-specific with respect to risk and be independent of financing considerations, and section 4 of the (NZ) IAS 36, page 55, requires the use of pre-tax discount rates for the purpose of calculating GIL. Despite this, a number of firms in this study disclosed post-tax rather than pre-tax rates.

Overall, selection and application of discount rates do not represent an objective measures for many CGUs. This evidence shows that there is bias in selection of

discount rates. Therefore, management certainly have financial reporting incentives to avoid GIL if possible. This is consistent with a statement made by Watts (2003), who has suggested that asset impairment testing regimes (SFAS 142, NZIAS 36) are flawed in that they offer financial statement preparers a fecund environment in which to opportunistically exercise discretion to the detriment of transparency, comparability and decision making.

Many assumptions, made along with complex calculations relating to goodwill reporting in the financial statements where auditors exercise their professional judgments, are not transparent to external users (Sevin et al., 2007; Wines et al., 2007). These findings are consistent with those of Pettersen and Plenborg (2010), who found inconsistencies in the way firms estimate recoverable amounts, specifically that number of CGUs is less than number of segments, goodwill is not allocated to a lower level, and pre-tax discount rate and terminal value calculations are incorrect. In practice, discount rates are estimated on an after-tax basis, adjusting for risk and estimating the cash flow in the terminal period.

Hence, all the complexities involved in confirming the level at which CGUs should be recognised, in estimating a "hypothetical" market transaction, and in estimating future net cash flows, residual values and discount rates results in great scope for disagreement and tension between auditors and financial report preparers (Wines et al., 2007). Furthermore, Wines et al. (2007) state that firms may choose compliant valuers to supply a valuation consistent with management wishes. This places auditors in a difficult position. Auditors have to approve the objective evidence which is provided by the compliant valuer. Specifically, company management, in collaboration with the accounting profession, need to use their valuation and measurement expertise and skills to estimate fair values, further opening opportunities for creative earnings management.

Conversely, the (NZ) IAS 36 gives management considerable latitude to exercise accounting judgment to convey their private information credibly to stockholders through financial statements. However, this latitude gives management more opportunity to manipulate earnings, because the estimated recoverable amount through future cash flows is unlikely to be verifiable and contractible (Jarva, 2009).

In light of the above arguments, managers have the flexibility to calculate impairment or non-impairment. The calculation of recoverable amount in both methods (higher of fair value less cost to sell and value in use) requires a large number of arbitrary assumptions and estimations. Also, the auditor does not have reference, in many cases, where there is a lack of objective evidence to support any valuation. In this situation, how management makes assumptions about goodwill valuations and how auditors exercise their professional judgment about those assumptions, are not transparent to external users. Therefore, a strong corporate governance system is required to oversee these issues (Wines et al., 2007). This is consistent with the conclusions of Ramanna & Watts (2011). Their study suggests that fair values, when extended to assets with un-auditable valuations, are likely to compromise financial reporting's role as a management control system.

2.2.5   Management discretion and leverage

High debt ratio firms, which are close to violating debt-covenant constraints, are more likely to apply income-increasing discretionary accounting treatments as their firms approach technical default (Sweeney, 1994). Ramanna & Watts (2011) also find that a statistically higher proportion of firms with debt covenants are likely to avoid or delay GIL. Net worth-and net income-based covenants are goodwill inclusive. Contracting costs indicate that GIL may have an adverse impact on debt contracts and other contracts of a firm (Watts & Zimmerman, 1990).

In contrast, Godfrey & Koh (2009) found evidence that the relationship between leverage and GIL is not strong compared to economic determinant ROA. (Beatty & Weber, 2006; Sevin et al., 2007; Zang, 2008) used various leverage proxies to examine the relationship between accounting choices and debt covenant restriction. They found that there is a positive relationship between debt covenant restrictions and leverage ratios. Agency theory literature suggests that contracts between debt holders and owner-managers contain covenants that restrict management behaviours, because owner-managers have incentives to take action that may negatively affect the debt holders' position (Duke & Hunt III, 1990).

These findings are consistent with Watts and Zimmerman's (1986) findings. They illustrate that "the larger a firm's debt-equity ratio the more likely the firm's manager is to select accounting procedures that shift reported earnings from future periods to the current period" (Watts & Zimmerman, 1986, p. 219).

2.2.6.   Management discretion and executive incentives

The (NZ) IAS 36 provides several accounting choices to managers to use at their discretion to improve the information quality in financial markets. Here the expectation of the standard is that managers' accounting choice to record GIL is based on their insight into the underlying economics of their firm. Financial data are more important in determining the stock prices. Therefore, the firm's equity market depends on the decision to write off or not. This suggests that managers use their discretion to delay GIL when they have bonus plan incentives—both cash and stock options—that are tied to financial performance of an entity (Beatty & Weber, 2006).

Beatty and Weber (2006) also found that firms follow above-the-line accounting treatment when factors such as debt contracting restrictions, equity market incentives and bonus considerations may affect management's decision to recognise the

impairment, either to delay or avoid GIL. Delayed GIL may never have to be recorded if fair value rises. Agency theory states that corporate executives who are agents for bondholders and stockholders and acting in their own self-interest, may or may not determine the GIL, which leads to possible wealth extraction from those investors (Guler, 2006). As Massoud & Raiborn (2003) argue, management have the flexibility to record GIL or not based on their selected underlying assumptions. In light of above arguments, agency theory predicts that management executives, by using this discretion afforded by accounting standards, will transfer wealth from bondholders and shareholders to themselves.

Watts & Zimmerman (1990) document that executive incentives that pay bonuses based on operating income will influence management discretion in making an accounting choice to shift reported earnings from the future period to the current period. Also, they state that most accounting choice literature assumes managers choose accounting methods to transfer wealth to themselves at the expense of another party in the firm. Accordingly, if part of managers' remuneration is derived from incentive plans, and management incentive schemes are related to accounting earnings, then it is expected that management have incentives to use accounting methods that increase accounting earnings. This is consistent with Ramanna & Watts (2011) findings that the proportion of non-impairment firms (57% of sample firms) whose CEOs are likely to have goodwill inclusive compensation contracts is higher than firms record impairment.

The findings of Chen et al. (2004) and Li et al. (2011) are consistent with the signalling theory. Their studies state that the announcement of GIL will reduce the share price in the market. This is because recording GIL should be associated with a decline in value of the expected future cash flows of the firm and a decrease in share price. Furthermore, Zang (2008) recognises that announcement of GIL will convey the private information of managers to the market. It will change the market expectation of firms' future cash

flows and risk. In future, it will negatively affect corporate executives' in the money stock options.

2.2.7. Management discretion and corporate governance characteristics

Managers using the opportunity to make favourable accounting choices are likely to delay GIL. This behaviour should be constrained by the oversight role of boards. Prior literature observes that the board of directors is the highest internal control mechanism responsible for monitoring the actions of top management. Therefore, more independent (outside) directors being on the board increases the effectiveness of monitoring and reduces any agency costs, and financial fraud (Beasley, 1996). Furthermore, Beasley (1996) confirms that non-fraud firms had higher percentages of outside directors, and their boards had an effective oversight of the financial process.

In addition, Beasley (1996) suggests that board composition is more significant than audit committee presence or composition and plays a greater role in reducing the likelihood of financial statement fraud. Outside directors have incentives to develop reputations as experts in decision control, because the external market for their services prices them according to their performance.

Jensen (1993) argues that encouraging outside directors to hold substantial equity means outside directors share ownership interest in the firm and provide better incentives for monitoring executives. On the other hand, outside directors with long tenure on the board are more likely to be entrenched with inside executives. Therefore, short tenure of outside directors is more likely to ensure independence and vigilance.

If a firm has fewer outside directors, the board composition being dominated by inside directors, this can lead to collusion and transfer of stockholders' wealth to directors. Consistent with this argument, Bowen, Rajgopal & Venkatachalam (2008) documented that discretion due to poor corporate governance is positively associated with future

operating cash flows and ROA. On the other hand, Brown, Becker & Verhoeven (2009) argue that strong corporate governance protects bondholders and leads to higher credit ratings and a lower cost of debt.

Krishnan and Visvanathan (2008) documented that the quality of the audit committee is positively associated with the quality of corporate governance internal control. Wines et al. (2007) suggest that the audit and associated corporate governance oversight involves the auditor's professional judgment and management's integrity. However, management makes assumptions regarding valuation of assets, liabilities and contingent liabilities at the acquisition and identifying CGU, numerous assumptions need to be made in estimating value in use, recoverable amount and fair value goodwill valuation. How auditors exercise their professional judgment about these assessments is not transparent to external users. Therefore, strong corporate governance is required for monitoring and control. Hence, the critical issue is whether the corporate governance mechanism results in effective and independent oversight of management's knowledge and economic power regarding the goodwill valuation and impairment process.

Petra and Dorata (2007) provide evidence that the presence of CEO duality (boards of directors are chaired by the firm's CEO, the number of other boards served by the board members, and the size of the firm's board are significantly associated with performance-based incentives offered to CEOs. Additionally, they find that CEOs are more likely to receive lower levels of performance-based incentives when the majority of the compensation committee members serve less than three other boards, and strong compensation committees are better able to keep CEO compensation under control. When board structures are more independent, boards will effectively monitor management decisions and CEOs cannot act opportunistically based on pay structure.

Finally, Core, Holthausen, & Larcker (1999) suggest that CEOs earn greater compensation when governance structures are less effective. Firms with weaker

governance structures have greater agency problems. Further, Core et al. (1999)state that the level of CEO pay is an increasing function of firm performance. Also, CEO compensation is higher when directors serve on more than three boards. Eventually, firms with weaker corporate governance exhibit poorer performance.

3.0 Hypothesis Development

3.1   Economic Determinants

My first sets of independent variables are economic determinants. These are based on
Beatty and Weber (2006) and Zang (2008), who argue that firms' economic
environments, growth options, propensity to recognise special charges and risks are
likely to lead to a management choice to take an impairment write-off. Furthermore,
they argue that firms which have a large amount of growth options are less likely to take
an (NZ) IAS 36 write-off. Like Guler (2006), I chose ΔROA and Δ sales as the
explanatory variables for a firm's performance in this study. The worse the firm's past
performance, the higher the likelihood and magnitude of annual goodwill impairment
losses. In other words, GIL firms have significantly lower profitability (ΔROA) and
higher B/M$_t$ value.

Moreover, high B/M$_t$ firms are likely to report GIL based on low growth options. In this
study, I quantify this relationship by dividing book value of equity and market value of
equity. It is expected that there will be a positive relationship between B/M$_t$ and
reported annual impairment charges.

Prior literature argues that a firm that has one segment is more likely to record existing
goodwill impairment; there is no complexity in organisational structure and allocation
of goodwill. Therefore, my study predicts that there will be a positive relationship
between one-segment firms and GIL.

The final economic factor is the firm's size, which is a comprehensive variable that
proxies for various aspects of a firm. Large firms generally experience greater numbers
of acquisitions and mergers and have more complicated organisational structure, and
such firms receive greater public attention and its proxy for information efficiency.

Therefore, they are less likely to manipulate the impairment (Zang, 2008). I define size as the log of market value of equity in the year of write-off.

3.2   Executives' Incentives

The second group of explanatory variables is designed to incorporate reporting incentives for managers that will lead management discretion to recognise annual GIL. For this, my study includes bonus to CEO's salary at the beginning of the year $_{t-1}$. Bonus plans are directly linked with earnings and lead to reduced GIL, and executives may transfer wealth from bondholders and shareholders to themselves (Guler, 2006). Similarly, Beatty and Weber (2006) argue that managers with earnings-based bonus plans are more likely to report income-increasing rather than income-decreasing voluntary accounting changes that follow below-the-line income.

On the other hand, Bens (2006) states that Beatty and Weber used earnings-based bonus plans as a dummy variable that are therefore affected by nonrecurring items, and zero otherwise. In this discussion, the possibility of a self-selection issue involving the bonus variable and the likelihood of (NZ) IAS 36 GIL recognition is proposed. According to this argument, firms with earnings-based bonus plans may be less likely to take an impairment charge, because such firms may have a lesser amount of goodwill to begin with. In order to address this possibility, I examined the relationship between bonus values and goodwill balances prior to write-off, consistent with the Guler (2006) model.

Moreover, the in-the-money option is the other factor related to reporting incentives and connected with the stock-price effects of goodwill impairment. Ramanna and Watts (2011) provide evidence that debt covenant and CEO compensation incentives are associated with non-impairment. Furthermore, they argue the unverifiable nature of fair-value estimates of goodwill makes such behaviour predictable under agency theory.

Apart from this, the in-the-money option also influences executives to choose non-impairment. This is because executives are likely to be particularly sensitive to the firm's stock price when their options are inthemoney. Any decline in stock price would directly reduce their wealth. Based on the above arguments, the study proposes the following hypotheses:

H$_1$: Ceteris paribus, firms whose top executives have a higher amount of earnings-based bonuses, record lower goodwill impairment losses; and

H$_2$: Ceteris paribus, firms whose top executives have higher amounts of in-the-money exercisable options, record lower goodwill impairment losses.

The magnitude of reported impairment loss is likely to be influenced by a change in CEO. Prior literature observes that firms with CEOs who have a shorter tenure will be more likely to record goodwill impairment (Beatty & Weber, 2006; Guler, 2006; Ramanna & Watts, 2011; Zang, 2008). This means that new management has a tendency to "take a bath" by writing off assets and recording provisions for future costs and losses (Zang, 2008). Following this view, new management may deliberately overstate GIL once they take over, in order to reduce or avoid write-off in the future and thereby show high operating earnings. From this standpoint, the prediction is made that CEO change will positively relate to GIL.

3.3 Corporate Governance Characteristics

The study uses five proxies for the effectiveness of the board as a monitoring mechanism for managers' choices in recognising existing annual goodwill impairment, which is consistent with Guler (2006). These proxies are insider directors' percentage on the boards, directors serve over three boards, percentage of outside directors' ownership, percentage of inside directors' ownership, and percentage of institutional holdings.

Based on prior research, independence and distance from management improves directors' effectiveness in reporting. Conversely, interdependence and closeness to management allows directors to opportunistically determine the accounting choice with respect to recognition of existing goodwill impairment. As a result, the study defines percentage of inside directors as an explanatory variable. The study expects a negative association between inside directors' percentages and GIL.

The other proxy variable which I have chosen to evaluate the effectiveness of board monitoring is to evaluate directors who serve more than three boards. Prior research suggests that when directors serve on more boards, this can result in over-commitment and reduced oversight of governance matters(Core et al., 1999; Guler, 2006). The study defines this variable thus: if directors serve on more than three boards, their numerical value is one, and they serve on two boards or fewer than two boards, their numerical value is zero.

The last two proxy variables are the percentage of outstanding common shares held by outside directors and the percentage of institutional ownership. Prior research observed that when outside directors' ownership enhances the monitoring incentives of board directors, there was less likelihood of financial statement fraud. Based on this, I predict a positive association between outside directors' ownership percentage and GIL.

The last proxy variable under corporate governance characteristics is institutional ownership percentage. Prior research indicates that this is an alternative governance mechanism, which actively or passively monitors management's actions (Guler, 2006).

Taken together, my studies imply that effective corporate governance is likely to reduce managerial opportunism associated with the GIL review process. This leads to the third hypothesis:

H₃: Ceteris paribus, there is a positive association between the strength of the board (effective corporate governance characteristics) and the amount of recorded goodwill impairment losses.

4.0 Methodology

4.1   Sample

The research analysis is based on secondary data which I obtained by using the New Zealand Company research database. Table 1 outlines the sample selection process. In order to select my samples, I first identified companies which reported goodwill in their annual reports during the 2008 – 2010 financial years. I used the 2008 – 2010 sample period because 2007 is the first year in which it was mandatory for NZ companies to adopt the IAS and to use the impairment test on goodwill. International Financial Reporting Standards were introduced in NZ in 2005, but many firms did not adopt them during the introductory period, and consistency of (NZ) IAS between the many listed companies could not be found. Therefore, I chose the mandatory subsequent transition period of (NZ) IAS 36 after 2007.

The financial statement data, detailed notes, and disclosure about goodwill and impairment losses have been taken from the annual reports of 2008 – 2010. There are 148 listed companies found in the NZX and the New Zealand Alternative Stock Exchange (NZAX) data set as of 2008. I have chosen the same companies for the years 2009 and 2010. Within the data set, 72 listed companies from various sectors have disclosed goodwill. The companies that did not report goodwill are eliminated. Out of 72 companies, I excluded one company that prepared annual reports in a currency other than New Zealand dollars (NZ$) and five companies that did not report all of their annual reports for the 12-month period, thereby reducing my sample to 66 companies for the 2008 – 2010 sample period. My final sample consists of 198 firm-year observations representing 66 NZ listed companies. The variables and model chosen are consistent with Guler (2006) and Godfrey & Koh (2009).

The purpose of the impairment test is to ascertain whether the carrying amount of an asset exceeds its recoverable amount. Determining GIL depends on the entity's internal and external factors (NZIAS 36, paragraph 12). Significant changes in economic determinants change the value of a reporting unit. Godfrey & Koh (2009) find that there is a significant association between economic determinants and GIL. They state that economic determinants are consistently the most dominant factor in recognising or delaying the recognition of GIL. In addition, these economic determinant variables help explain why accounting for GIL is associated with future profitability and with the market value of equity. They are very closely correlated with executive incentives and oversight by corporate governance. Furthermore, managers would reasonably expect that financial reporting that accurately reflects their firm's economic characteristics could usefully guide capital markets, if only by confirming information already available to the markets.

Another argument is that under (NZ) IAS 36, goodwill might be written down as it is impaired, but it might not be written up as it improves. This is consistent with the arguments of (Guler, 2006) . The first set of variables under economic determinants, ΔSales and ΔROA, are firm-specific factors associated with prior performance and changes in performance. Return on assets is measured by earnings before interest and tax (EBIT) divided by average total assets. Similar to (Guler, 2006), ΔSales for firms from prior years is included to capture changes in firms' performance.

The other economic determinant variable in the model, B/M_t, first captures intensity of the expected economic impairment of goodwill, and second proxies for growth options. Following (NZ) IAS 36 guidelines, firms with excess amount of book value over market value, both measured at reporting unit level, are more likely to incur GIL. This argument is consistent with the Beatty and Weber (2006) statement that firms with more growth options, are less likely to have GIL. I analysed this construct by dividing

book value of equity and market value of equity at the end of the year. Then I included firm size and one segment as economic determinants, based on the (Guler, 2006) model.

The second group of proxies such as CEOs' cash salary, corporate executive bonuses, corporate executives' in-the-money-options, and CEO changeovers (CEO tenure), have been taken as executive incentives based on the (Guler, 2006) model. These selected factors explain how increasing reporting incentives of managers influences their decisions to recognise annual GIL in the NZ business environment. As I discussed in the hypotheses development, the earnings-based bonus plan variable and in-the-money option variable are used similar to the (Guler, 2006) model. In the hypothesis 1, higher amount of earnings-based bonuses explains bonuses above the median of the sample. This also applies to in-the-money-options hypothesis 2.

I have not included the debt covenant variable in my hypothesis test. This is because debt covenant data are not publicly available and not disclosed in financial statements or proxy statements. Also, debt covenant contracts information is difficult to access. Therefore, I excluded this variable to run my hypothesis test.

I obtained economic performance data from financial statements and notes. I have collected the executive compensation data (salaries, bonuses and options) and corporate governance data (percentages of inside directors, directors who serve on more than three boards, outside directors' ownership percentages, inside directors' ownership percentages, and institutional ownership percentages) from firms' proxy statements such as statutory information reports and corporate governance reports that are part of annual reports. There is no specific data base available to directly access executive incentives and corporate governance characteristics. Therefore, I have hand-collected these data from firms' statutory statements and corporate governance reports which are publicly available in annual reports.

Table 2 presents details of industry composition of the overall sample: intermediate and durables (15%), and financial and other services (13%) are most heavily represented in my sample.

4.2   Model

I use the following general model to assess the determinants of GIL (Guler, 2006):

Impairment   = f (economic determinants, executive incentives, corporate governance characteristics)

Based on Guler (2006), my study uses GIL as a dependent variable and economic determinants, executive incentives and corporate governance characteristics are the independent variables. The details of these variables are given at the end of this section.

In the main, this study investigates firms' decisions to recognise GIL. The decision to recognise GIL is a dichotomous choice. Therefore, I use a dichotomous logistic regression model to predict the dependent variable with three groups of independent variables (14 variables) (Hair, Black, Babin, Anderson, & Tatham, 2010). This technique is used to examine the relationship between a single dependent variable and a set of independent variables (Hair et al., 2010). Moreover, this analysis examines the effects of hypothesised executive incentives and constraints on executives' (NZ) IAS 36 reporting choices. This study explains the optional predictor of the dependent measure. This means it analyses the importance of independent variables, the types of relationship, or the inter-relationship among the independent variables. My research predictions will make a significant contribution to accounting users such as standard setters, auditors, investors and potential investors. I use the following logistic regression to examine the effects of hypothesised incentives and constraints on executives' (NZ) IAS 36 reporting choices.

$$GIL_t = \alpha + \beta_1\Delta ROA_t + \beta_2\Delta SALES_t + \beta_3\, B_t/M_t + \beta_4 ONSE_t + \beta_5 SIZE_t + \beta_6\Delta CEO_t +$$

$$\beta7BONUS_{t\text{-}1\,+}\,\beta_8 INMONOPT_{t\text{-}1} + \beta_9\, CEO\ Salary_{\,t\text{-}1} + \beta_{10} INSIDEDIR_t +$$

$$\beta_{11}BUSYDIR_t + \beta_{12}OBIND_t + \beta_{13}\, INSDOW_{\,t} + \beta_{14}INST_t + \varepsilon$$

Where:

GIL_t: A dichotomous variable is equal to one if the firm recorded an annual (non-adoption period) goodwill impairment loss under (NZ) IAS 36 at the end of t.

Economic Determinants

ΔROA_t: The percentage change in return on assets for a firm from period t-1 to t.

$\Delta Sales_t$: The percentage change in sales for a firm from period t-1 to t.

B_t/M_t: Book value of equity divided by market value of equity at the end of t.

$ONSE_t$: A dichotomous variable equal to one if the firm has one business segment at the end of t, and zero otherwise, if more than one segment.

$Size_t$: Log of market value of equity at the end of t.

Executives' Incentives

ΔCEO_t: An indicator variable equal to one if a firm experiences a change in CEO from year t_{-1} to t, and zero otherwise.

$BONUS_{t-1}$: Value of bonus compensation for the CEO at the end of t-1 divided by CEO's salary at the end of t-1.

$INMONOPT_{t-1}$: Value of in-the-money exercisable options for the CEO at the end of t-1 divided by CEO's salary at the end of t-1.

Corporate Governance

$INSIDEDIR_t$: Percentage of directors who are employed by the firm who are not

independent directors.

$BUSYDIR_t$: Sum of all directors with more than three corporate directorships on a

firm's board of directors.

$OBIND_t$: The common shares held by outside directors (independent) divided by

total common shares outstanding.

$INSDOWt$: The common shares held by non-independent directors divided by total

common shares outstanding.

$INST_t$: The common shares held by institutional investors divided by total

common shares outstanding.

5.0 Results and Discussion

5.1   Sample Descriptive Statistics

Table 3 provides descriptive statistics for my sampled firms, consisting of 66 companies

for the 2008 – 2010 periods. I have pooled these data and analysed the 198 sample

population. The analysis shows that 16% of sampled firms recorded an impairment

charge during the subsequent period, after the mandatory adoption of the (NZ) IAS on 1

January, 2007. There is a large variation in the number of firms that had reported GIL,

with a standard deviation of .371. The mean of total assets is $18 876 million and an

average 5% of sampled firms wrote off impairment for their goodwill, which is quite a

low average. On average, goodwill constitutes 15% of their total assets. This shows the

significance of goodwill in the total assets.

The mean values of economic determinant variables, ΔROA and ΔSales indicate that

sampled firms had positive earnings growth. This shows that firms expected to generate

more cash flow and profitability in the future. In this case, they do not recognise or

delay the recognition of GIL expenses. On the other hand, the mean B/M_t ratio is more

than 1. This suggests that firms are unlikely to record GIL. They intend to overstate

their earnings and assets in order to protect their equity incentives, which is consistent

with the findings of Watts (2003). Also, results highlight that high debt-ratio firms are

less likely to recognise GIL, and 81% smooth mean values describe that firms' earning

values are higher than their expectation to accelerate expense recognition, consistent

with Beatty and Weber (2006).

Under executive incentives, the descriptive statistics show that bonus-to-salary median

is equal to zero. Firms with a bonus-to-salary ratio that is higher than the median value

(greater than zero) will delay or avoid recording GIL. Of sampled firms, more than 59%

provide in-the-money option incentives to executives, compared with 18% providing

bonus incentives. Corporate governance descriptive statistics show that the mean percentage of inside directors' ownership is 17% as compared with the percentage of outside directors' ownership at 4%. The percentage of directors who serve on over three boards is 18%, indicating the extent of over-commitment in board composition.

Table 4 provides information about the Pearson correlation among variables and Þ-values shown adjacent to the diagonal. For the most part, the proxies for my hypothesis are not significantly correlated with one another or with the control variables. The Pearson correlation analysis showed that ΔROA is negatively and significantly correlated with GIL (at a .05 level). This result is consistent with Li et al. (2011). Also, ΔSales is significantly correlated with GIL but not in the predicted direction. Book-to-market value was also significantly and positively correlated with GIL, consistent with prior researchers' findings. In-the-money option reporting incentive was negatively correlated and was not statistically significant.

Corporate governance characteristics control variables are not significantly correlated (other than directors over three boards), but not in the predicted direction. Percentage of outside directors' ownership positively correlated with GIL, but is not statistically significant. However, CEO change is significantly correlated with ΔROA, and Δsales are consistent with prior research.

5.2 Multivariate Regression Results

Table 5 presents the results of the logistic regression examining the determinants of the decision to take a write-off under (NZ) IAS 36. The likelihood ratio chi-square is statistically significant at the .014 probability level. The pseudo R square is 13.3%.When performance indicators such as Δ ROA_t and Δ $sales_t$ are higher, firms are less likely to take a write-off. This is consistent with the research results of Godfrey and Koh (2009) and Li et al. (2011). My logistic regression analysis showed that firms that

have poor finance performance, as indicated, will take more write-offs, consistent with Beatty and Weber (2006) and Guler (2006). The variable ΔROA_t shows significantly negative sign results and is statistically significant at a 0.05 probability level, with a chi-square value of 5.169. The variable $\Delta sales_t$ showed the negative sign as we predicted, but it was not statistically significant. As expected, firms with higher B/M_t are more likely to take a write-off, and this is highly significant at the 0.05 level. The results are consistent with the negative prediction implied by Guler (2006). One-segment or fewer-segment firms are more likely take a write-off. For firms with one reporting unit, there is no goodwill allocation, reducing the manager's write off discretion and increasing the likelihood of a goodwill write-off, consistent with the findings of (Beatty & Weber, 2006) .

For executive incentive proxies, the relationship between bonus-to-salary ratio and GIL did not support my first hypothesis. This is consistent with Bens' (2006) argument that it is difficult to accurately determine how the corporation determines "earnings," and thus whether bonus calculations would include or exclude impairment. In addition, according to Bens' (2006) studies, few companies' financial notes disclosed that the incentives for corporate executives were determined based on return on equity. It is not obvious whether this measure is calculated before or after impairment charges. The logistic regression results of this study indicate that, on average, firms with above-the-median (more than zero) bonus-to-salary ratio have significantly higher $goodwill_{t-1}$ balances than firms with below the median bonus-to-salary ratio, which have lesser amount of goodwill at the beginning of the period. The other executive proxy, in-the-money option, is negatively correlated with GIL as predicted and consistent with Guler (2006) but not statistically significant. This provides partial support for my second hypothesis.

Consistent with my third hypothesis, results indicate the predicted direction for the percentage of inside directors in the board composition, and percentage of outside directors' ownership. I found that the inside directors' percentage coefficient was negative but not statistically significant. However, the odds of a firm taking a write-off are decreased by 72.5%. The coefficient on outside directors' ownership percentage is positive and significant at .05 levels. So, the results suggest that inclusion of outside directors' ownership increases the board's ability to monitor top management effectively and reduces agency costs (Beasley, 1996). The coefficient on institutional holdings percentage as a control for an alternative governance mechanisms is negative and insignificant.

5.3   Implications

These results should be of interest to firms' auditors, standard setters and users of financial statements. First, firms' economic performance indicates that a firm with low growth in ROA and sales will take higher GIL. Economic performance is consistently the most dominant factor in a firm. Based on GIL literature, firms that are performing well are less likely to have GIL (Godfrey & Koh, 2009). On the other hand, firms who are performing poorly are likely to take high GIL to take a "big bath" to improve their earnings in future. These results are consistent with other researchers' (Chen et al., 2004; Guler, 2006; Z. Li et al., 2011). Overall, my study suggests that GIL is negatively correlated with average sales growth and with growth in ROA.

This reveals to the market when companies have failed to realise the expected benefits of prior acquisitions. Because of this kind of announcement, market reaction can be largely attributed to investors revising their expectations of future sales growth and operating profits downward based on the information conveyed by GIL. Furthermore, GIL thus appears to be a leading indicator of a decline in future profitability (Li et al.,

2011). Among the performance indicators, ΔROA and B/M_t equity measures are statistically significant.

As expected, firms with higher book value of equity than market value of equity are more likely to take a write-off. This is consistent with the standard that firms carrying value of assets higher than fair value, should record GIL.

Executive incentives' bonus-to-salary ratio is not significant and not in the predicted direction. Hence, results do not support my first hypothesis that $bonus_{t-1}$ to CEO's $salary_{t-1}$ has a negative effect on GIL. Thus, these unexpected results suggest that there is a lack of disclosure of CEO compensation details in the financial reports and proxy statements. Most of the companies did not reveal the detail of executive compensation, and bonus contracts are not publicly available. An average of 18% of the total firms sampled, disclose the bonus-to-salary ratio information. As there is lack of information regarding executive bonus incentives, the regression analysis does not give definite results as expected. However, the in-the- money option to salary explanatory variable provides support for my second hypothesis (H_2). It shows that the in-the-money option and GIL are negatively associated but not significantly so. The marginal effects on in-the-money options to salary indicate that for a one standard deviation increase in this variable, ceteris paribus; the odds of a firm taking a GIL write-off are decreased by 16.8%. This result is consistent with Guler (2006) . It indicates that executives with substantial in-the-money option holdings have incentives to issue misstated accounting information to the market by not recording GIL, in order to protect their wealth.

Consistent with prior literature, my third hypothesis indicates a strong association between the percentage of outside directors' ownership and the likelihood of taking an (NZ) IAS 36 write-off. The coefficient on percentage of outside directors' ownership is positive and significant at the 5% level. This result is consistent with the Jensen (1993) argument that encouraging outside directors to hold substantial equity interest in firms,

would provide better incentives for monitoring top management. Other variables, such as percentage of inside directors and percentage of institutional ownership, are also consistent with the hypothesis, but they are not statistically significant.

Overall, the results imply that managerial incentives do affect management decisions either to accelerate or delay GIL. In addition, the results highlight that strong corporate governance internal controls constrained this tendency.

6.0 Conclusion

The (NZ) IAS 36 changed the accounting for goodwill in three fundamental ways. First, it eliminated the periodic amortisation of these assets into expenses. Second, it required that goodwill be assigned to a "reporting unit" for external reporting purposes that closely matched how management viewed the corporation's portfolio of businesses for internal purposes. Finally, it instituted a "fair value" test for determining goodwill impairments (Bens, 2006). However, fair values are not readily available for many of the reporting units to which goodwill balances were assigned, which mean managers enjoy a certain amount of discretion when applying this standard.

The central debate in accounting literature is whether managers make accounting choices for selfish, opportunistic enrichment at the expense of shareholders. Prior literature suggests that the existence of opportunism is associated with executive incentives and poor corporate governance control. Consistent with this, this study supports previous research by examining the role of executive incentives and corporate governance in management's accounting choice over whether to record impairment or not in the post-transition period.

This study finds a weak negative association with in-the-money option incentives and GIL, but it is not statistically significant. However, analysis of corporate governance characteristics reveals a strong positive correlation between percentage of outside directors' ownership and firms' decisions to take an (NZ) IAS 36 write-off. Overall, the logistic regression test results imply that management incentives do affect GIL implementation. However, strong corporate governance constrains these incentives.

Corporations are indeed using their discretion in determining goodwill fair value to delay or reduce GIL in order to manage earnings. This behoves auditors and investors alike to pay special attention to the goodwill assets of companies' reported earnings, or

change in earnings which are more sensitive with stock prices. Recognition of GIL adversely affects stock prices, in this case, a company has a strong incentive to manipulate GIL to avoid or delay in order to protect their CEO in-the-money options.

Similarly, auditors should carefully examine goodwill fair value measures when related to GIL. Careful examination would significantly decrease CEO compensation such as in-the-money options. This conclusion is consistent with the (Beatty & Weber, 2006) argument that equity market considerations are more significant.

It is possible that the most important contribution of this study is to substantiate the general integrity of a component of financial statements as a reflection of firms' economic determinants, such as change in ROA.

This study also indicates that strength of the board (effective corporate governance characteristics) is the most effective internal control mechanism for monitoring the actions of top management. In particular, board compensation committee should place more attention on managing corporate executives' compensation than the firm's earnings will improve the effectiveness of corporate governance.

My study has several limitations. First, it analysed only a small sample of 66 companies which are listed on the NZX. New Zealand has a small capital market. Therefore, measurement error may exist and most of the variables are not statistically significant. Second, the companies do not reveal CEO compensation, especially in-the-money option data. Future research can scrutinise implementation of this standard across nations and analyse executive incentives and the corporate governance environment that influence managers making opportunistic accounting choices.

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Table 1 Sample Selection and Data Sources

Firms on the NZX database	148
Firms on the NZX database that had goodwill balance within 2008 – 2010 accounting periods	72
Firms on the NZX database which prepared their annual reports in currencies other than the New Zealand dollar	-1
Firms that did not provide necessary information	-5
Total number of firms in the study	66

Table 2 Industry Composition

No	Industry description	Number of firms	% of sample
1	Agriculture and fishing	4	6.06%
2	Building materials and construction	3	4.54%
3	Consumer	4	6.06%
4	Energy processing	5	7.58%
5	Equity trusts and funds	0	0.00%
6	Finance and other services	9	13.64%
7	Food and beverage	2	3.03%
8	Forestry and forest products	0	0.00%
9	Intermediate and durables	10	15.15%
10	Investment	5	7.58%
11	Leisure and tourism	2	3.03%
12	Media and telecommunications	3	4.54%
13	Mining	0	0.00%
14	Overseas	5	7.58%
15	Ports	2	3.03%
16	Property	1	1.52%
17	Textiles and apparel	1	1.52%
18	Transport	3	4.54%
19	NZAX	7	10.60%
	Total	66	100 %

Table 3 Descriptive Statistics

	Variables	Mean	Std. dev.	Min.	25	Median	75	Max.
Economic determinants	Impairment	.16	.371	0	.00	.00	.00	1
	WO%	.05	.170	0	.00	.00	.00	1
	Goodwill/Assets	.1558	.1745	.0139	.0139	.1045	.2467	.92
	Assets in millions	18,876	91,210	3253	46	235	1,544	618,277
	ΔROA_t	.0128	.1525	-.63	-.0152	.0090	.0467	1.24
	ΔSales	.1236	.4872	-.74	-.0428	.0245	.1573	3.56
	B/M_t	1.2504	1.5245	-.16	.4186	.6292	1.4639	7.29
	One segment	.11	.311	0	.00	.00	.00	1
	Bath	.19	.393	0	.00	.00	.00	1
	Smooth	.81	.393	0	1	1	1	1
	Debt ratio	.5602	.2111	.00	.3896	.5645	.6832	.98
Executive incentives	CEO change	.14	.346	0	1.00	.00	.00	1
	Bonus to salary	.1837	.5096	.00	.00	.000	.00	3.80
	In-the-money option	.5977	2.3638	.00	.00	.00	.0544	21.23
	CEO cash salary	824.64	823.441	0	304	593.00	1089	5300
Corporate governance	Board size	6.43	1.942	3	5.00	6.00	8.00	11
	Inside directors %	.4109	.2192	.00	.2500	.3636	.6000	1.00
	Directors over 3	.18	.389	0	.00	.00	.00	1
	Outside dir. own.%	.0353	.1067	.00	.0007	.0042	.0156	.69
	Inside dir. own.%	.1793	.2367	.00	.0012	.0667	.3088	.85
	Institutional %	.4567	.2543	.00	.2688	.4692	.7003	.98

Table 4 Correlation Analysis (Pearson)

		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1	GIL	1.00														
2	ΔROA_t	-.157*	1.00													
3	ΔSales	.148*	-.501**	1.00												
4	B/M_t	.187 **	.113	-.074	1.00											
5	ONSE	.044	-.002	.013	-.028	1.00										
6	Size	.041	.009	-.023	-.118	-.061	1.00									
7	ΔCEO	.000	-.249 **	.172*	.117	-.008	.264**	1.00								
8	Bonus	.110	.014	.021	-.146*	-.096	.215**	-.020	1.00							
9	Inmonopt	-.053	.016	-.001	.002	-.042	.023	-.088	.018	1.00						
10	Inside dir%	-.116	-.041	.032	-.096	-.136*	-.131 *	.036	-.084	-.113	1.00					
11	Directors over 3 boards	.176*	.021	.034	-.077	-.035 .	.300**	129 *	078	.022	.116	1.00				
12	Outside dir own%	.068	.161*	.025	.062	.040	-.059	.111	.019	-.020	-.200 **	-.118*	1.00			
13	Inside di row%	-.041	-.216 **	-.112	-.115	-.013	-.138 *	.124*	-.081	.046	.338 **	.007	-.063	1.00		
14	Institu hol %	-.089	-.053	.007	.093	.170*	.054	.089	-.219**	.133*	.204 **	.061	.206 **	.244 **	1.00	
15	CEO salary%	.082	.063	-.048	-.060	-.146*	.223 **	-.075	.156 *	.052	-.143 *	.393 **	-.127 *	-.337 **	.282**	1.00

Table 5 Dichotomous Logistic Regression Model

The dependent variable, $impair_t$ is 1 for firms accounting by write off, otherwise it is 0. Other variables are independent variables defined in the appendix. One tailed test is employed for directional hypothesis. Coefficient estimates are standardised on the respective independent variables. Odd ratio is equal to e to the power of the standardised coefficient estimates. Percentage change is equal to (Odd-ratio-1*100)

Variable	Prediction	Std. coef. estimate	Odds ratio	Percent change	Chi-sqr. value	p-value
Intercept	?				3.577	.059
Economic determinants						
ΔROA_t	-	-2.768	.063	-93.7%	5.169	**.023**
$\Delta Sales_t$	-	-.208	.812	-18.8%	.255	.614
B/M_t	+	.319	1.376	37.6%	7.192	**.007**
One segment$_t$	+	.150	1.162	16.2%	.040	.841
Size$_t$	-	.000	1.000	0%	.101	.750
Executive incentives						
CEO Change$_t$	+	-.752	.472	-52.8%	.942	.332
Bonus$_{t-1}$ to Salary$_{t-1}$	-	.520	1.683	68.3%	2.034	.154
In-the-money option$_{t-1}$ to salary$_{t-1}$	-	-.183	.832	-16.8%	.588	.443
CEO cash salary$_{t-1}$	-	.000	1.000	0%	.115	.735
Corporate governance characteristics						
Inside directors %	-	-1.291	.275	-72.5%	1.104	.293
Directors over 3 boards	-	1.658	5.250	425%	7.945	**.005**
Outside directors' ownership%	+	3.500	33.103	3210.3%	3.148	**.076**
Inside directors' ownership %	?	.079	1.082	8.2%	.004	.947
Institutional ownership%	?	-1.346	.260	-74%	1.595	.207
Model summary statistics						
-2log likelihood	146.714					
Model chi-square	28.099					
p-value	.014					
Pseudo R-square	.133					