

# **The Goodwill Impairment Debate: Evidence from New Zealand**

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**The Goodwill Impairment Debate: Evidence from New Zealand**

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## **Attestation of Authorship**

I hereby declare that this 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 (except where explicitly defined in the acknowledgements), 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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Min Yu

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# **Abstract**

Business acquisition has become a common practice and purchased goodwill recognised through these business acquisitions makes up a significant part of the total assets acquired. Under current New Zealand Equivalents to International Financial Reporting Standards (NZ IFRSs), goodwill acquired from a business combination (purchased goodwill) is recognised as an unidentifiable intangible asset and should be tested for impairment annually to determine whether or not it has been impaired.

This study aims to explore the accounting practices relating to goodwill acquired from business acquisition as reported by 15 New Zealand companies and the impact of these practices on the reliability and relevance of goodwill accounting information. By a combination of data driven and prior research driven method, this study analyses a broad range of financial data on companies' annual reports, and show five themes to present the reliability and relevance of goodwill accounting information on financial statements. The overall finding provides evidence that the reliability and relevance of goodwill impairment practices from sampled NZ companies under current NZIFRSs have been well preserved. One significant theme is that the sampled NZ companies have practiced timely write-offs of overpaid price for goodwill and an acceptable level of compliance with goodwill impairment testing requirements in the selection and disclosure of key estimates. The findings also suggest that at least some components of goodwill have shorter economic lives and by no means indefinite. Finally, this study indicates an ongoing need to monitor the high percentage goodwill in term of total assets, the possibility of opportunistically eliminating goodwill by managers, and more informative disclosure on financial statements.



# **Chapter 1      Introduction**

## **1.1 Introduction**

Goodwill is one of those intangible assets that have attracted much research interest. This interest is partly related to the unusual characteristics of goodwill leading to a unique set of rules and standards governing its recognition, measurement and disclosure.

The current standard, governing goodwill accounting, outlines that goodwill is no longer be amortised but impaired in accordance to the impairment process outlined in New Zealand Equivalent to International Accounting Standard 36 – Impairment of Assets(NZ IAS36). The impairment process however is not a strictly defined process and it relies on the professional interpretation of accounting standards. This flexibility has the potential to generate inconsistencies and non-comparability in the financial statements. It also creates an additional avenue for earnings management. Goodwill is an inevitable outcome of business combinations and corporate takeovers and it has a special classification as an unverifiable intangible asset. The inevitable balance that needs to be reached, with the treatment of goodwill, is the preservation of reliability and relevance, in relation to the financial statements.

## **1.2 Purpose of the Study**

The research question of this study is:

To what extent do goodwill reporting and assessing its impairment by New Zealand firms preserve the reliability and relevance of goodwill accounting information in financial statements?

In order to understand the broad concepts of reliability and relevance of goodwill impairment accounting information, the following sub-questions are also discussed in the research.

- Does the initial recognised goodwill in business acquisitions include some components which do not have indefinite useful lives?

- If these components without indefinite useful lives are included in the initial recognised goodwill, have they been written down?
- In the years following the recognition of goodwill, has any adjustments and/or movements of goodwill been recognized and for what reason? Are these movements reasonable?
- Do the practices under the previous systematic write-off of goodwill provide motivation for adopting the current annual impairment testing regime?
- Do current goodwill impairment testing practices in NZ firms provide evidence of its value relevance in terms of reliability and relevance?

In order to be useful for economic decision making, financial information should have four primary qualitative characteristics of understandability, relevance, reliability and comparability (Deegan and Samkin, 2011, p 52). Among these four characteristics, relevance and reliability are extensively discussed by researchers and accounting professionals. Financial analysts have questioned the goodwill impairment testing process arguing that the subjective nature of the process compromises the integrity of the financial statements. The current study explores the validity of these claims in the context of New Zealand companies who have goodwill on their balance sheet.

Accounting treatment for goodwill is a subjective exercise that is reliant on unverifiable estimates, assumptions and justifications. This is especially true for the measurement of goodwill impairment process. Hoogendoorn (2006) claims that measuring goodwill impairment is regarded as among the most difficult to measure. The subjective nature of the exercise coupled with the signal that such an estimation, assumption and justification would send to the market makes the exercise prone to management bias. Numerous previous studies have examined the value relevance of current accounting for goodwill regimes by testing for the two primary accounting information qualities of reliability and relevance. In contrast to the expectation of standard setters, many of these studies have found negative effect of the current goodwill impairment requirements and non-compliance with these requirements. These studies can be grouped into the following four areas:

- acquisition and subsequent performance indications that goodwill may be impaired
- managers' discretion in determining goodwill impairment

- value relevance of goodwill impairment measured by market reaction
- compliance with goodwill impairment testing requirements

The first is the analysis of the acquisition indicators and subsequent performance indicators of goodwill impairment. A number of researchers found that some acquisition indicators and subsequent performance indicators appear to be more powerful in predicting goodwill impairment than the disclosures in the financial statements (Al-Khadash, 2009; Beatty & Weber, 2006; Churyk, 2005; Guler, 2007; Hayn & Hughes, 2006; Jahmani, Dowling, & Torres, 2010; Jarva, 2009; Li & Sloan, 2011; Li, Shroff, Venkataraman, & Zhang, 2011; Masters-Stout, Costigan, & Lovata, 2008; Ramanna & Watts, 2010; Vichitsarawong, 2007). Studies also show a time lag between the deterioration in the performance of the acquired business and the actual write-down of goodwill acquired (Hayn & Hughes, 2006; Li & Sloan, 2011).

The second is the managers' discretion in determining goodwill impairment. Some researchers found that managers use unverifiable discretion under certain circumstances of the accounting standards to opportunistically manipulate goodwill impairment (Beatty & Weber, 2006; Guler, 2007; Masters-Stout, Costigan, & Lovata, 2008; Muller, Neamtiu, & Riedl, 2009; Ramanna & Watts, 2010; Sevin, Schroeder, & Bhamornsiri, 2007).

The third is the value relevance of goodwill impairment measured by market reaction. Studies show the absence of a significant relationship between the market value of equity and goodwill impairment announcement because investors do not consider goodwill impairment announcements as a way of conveying management private information (Bens, Heltzer, & Segal, 2011; Bugeja & Gallery, 2006; Li & Sloan, 2011).

The last is the compliance with the requirements of goodwill impairment testing and calculating process. A number of researchers have examined the quality of goodwill impairment testing and calculating process in the post adoption years of International Financial Reporting Standards (IFRSs) and Statement of Financial Accounting Standards (SFASs). Researchers found the existence of no effective disclosure and certain level on non-compliance with the standard requirements (Bepari, Rahman, &

Mollik, 2011; Carlin & Finch, 2008 a, 2008 b, 2010 b, 2010 c, 2010 d; Carlin, Finch, & Ford, 2007; Carlin, Finch, & Laili, 2009; Carlin, Finch, & Tran, 2010 e; Carlin, Ji, & Finch, 2010 f; Comiskey & Mulford, 2010; Petersen & Plenborg, 2010; Wiese, 2005).

The research discussed above reveals the negative effect of the current goodwill impairment regime. However these studies have either taken a narrow approach to the topic by focusing on a limited number of issues or by using data from a relatively short time span. The relatively short time span associated with these earlier studies has been arguably unavoidable given the short time laps between the introduction of the new standard (International Accounting Standard - IAS36 and Statement of Financial Accounting Standard - SFAS 142) through to the time these studies were carried out.

There is a need to assess the reliability and relevance of the current goodwill accounting regime by investigating the overall goodwill accounting practices from the initial recognition of goodwill process to the implementation of current goodwill impairment regime stage. Moreover, the lack of consensus, as evidenced by the on-going debate in the extant literature, suggests a need for future research and empirical evidence to guide the development of accounting standards. In particular, two recent Australian studies from Carlin and Finch (2010 b, 2010 c) have explored and compared the compliance with goodwill impairment requirements of New Zealand firms and Australian firms. However, both of these studies were based on the data from the first year of New Zealand firms' compulsory adoption of IFRS in 2007. Furthermore these studies covered few issues related to practice and compliance. This study is also an extension of these two studies by looking specifically at New Zealand firms from both the pre and post IFRS adoption period.

This study seeks to explore the last group of compliance level of goodwill reporting and goodwill impairment practiced by New Zealand based companies by analysing the disclosures on their financial statements and the commentary in their annual reports with regard to goodwill impairment. The design of this study is such to explore the reliability and relevance of current goodwill reporting and goodwill impairment testing regime under NZ IFRS3, NZ IAS36 and NZ IAS38 in New Zealand context. This study also compares the findings with the debates from previous studies and then draws on

evidence from the sampled New Zealand companies included in this study as to the implications of goodwill reporting and goodwill impairment on the financial reporting. The first three groups of issues discussed above are not directly tested in this study, such as, the relationship between actual goodwill impairment and the indicators for the impairment, the presence of opportunistic behaviour in goodwill impairment, and the effect of impairment on market reaction. However, this study covers the impact of indicators on goodwill impairment and management incentives in goodwill impairment testing for the purpose of valuing the reliability and relevance quality of goodwill accounting information.

### **1.3 Research Methodology and Design**

This research project is a qualitative study, using the thematic analysis method. This study fits the constructivist/interpretive paradigm due to its exploratory and interpretation nature. The findings from this study are a constructed snapshot of the goodwill reporting and goodwill impairment practices of New Zealand companies' pre and post the adoption of IFRS in 2005-2007. The approach of data analysis and valuation is combination of data driven and prior research driven thematic analysis. This approach involves several steps: initial recording codes from the annual reports, analysing dataset against the summary issues emerged from the literature review, drawing and consolidating the thematic strands to determine any linkages or similarities with the extant literature. Finally, the outcome of this analysing process will be the findings and contribution of this study.

### **1.4 Structure of the Study**

This qualitative study examines the treatment of goodwill by New Zealand companies surrounding the shift from amortisation to impairment. This shift followed the adoption of IFRS in New Zealand in 2005<sup>i</sup>. To achieve the research purpose, this study is divided into five chapters. This first chapter provides a brief introduction of the study. Chapter 2 is a literature review and provides a history of goodwill accounting and the development of accounting standards governing its recognition, measurement and disclosure for

financial reporting. Chapter 3 outlines the methodology and research design. Chapter 4 includes a discussion of the goodwill treatment practices of the New Zealand companies included in the study. Chapter 5 concludes with a summary of the findings, contribution to the existing literature and implications for future research.

## **Chapter 2      Background of Accounting for Goodwill**

### **2.1 Introduction**

This chapter is a review of the literature for goodwill accounting. It provides a summary of the four phases surrounding the goodwill recognition process through to the status of the accounting standards governing subsequent goodwill measurement and disclosure. It also provides a summary of the extant literature on goodwill with particular focus on the challenges related to its recognition, measurement and disclosure.

### **2.2 Definition of Goodwill**

Goodwill is commonly associated with the notion of friendship, compassion and loyalty between individuals in a society. The two words ‘good’ and ‘will’ immediately suggest a positive attitude and relationship between individuals. In the context of commerce, goodwill is associated with the positive relationship and reputation that a business has with its customers and stakeholders. Customer loyalty and supplier relationship are well identified with successful businesses. Businesses that have developed a good relationship with their customers and suppliers are said to have a degree of goodwill. This type of goodwill is generally not recognised in the field of accounting, as it cannot be objectively measured. This same goodwill however emerges in a business combination or takeover, where the purchase price for a business exceeds its fair value. The excess of the purchase price over the fair value of the business or the business assets acquired is identified as goodwill. Occasionally, an acquirer will make a bargain purchase, which is the purchase price is less than the fair value of the acquired business. This bargain purchase is recognised as a gain in profit or loss and it is not fall in the scope of this study. Since this residual value is objectively determined, this type of goodwill is recognised and disclosed in the financial statements. To differentiate between the two types of goodwill, the former is internally generated goodwill, while the latter is termed as purchased goodwill. The current financial reporting standards only allow the recognition of the latter. For the purposes of this study, goodwill is

limited to that of purchased goodwill, and is defined under NZ IAS38 paragraph 11:

Goodwill recognised in a business combination is an asset representing the future economic benefits arising from other assets acquired in a business combination that are not individually identified and separately recognised. The future economic benefits may result from synergy between the identifiable assets acquired or from assets that, individually, do not qualify for recognition in the financial statements (NZICA, 2011c, p. 16).

This definition for goodwill specifically differentiates it from other intangible assets that must be identifiable before they may be recognised.

## **2.3 History of the Recognition and Measurement of Goodwill**

One of the most commonly cited research studies in goodwill field is the book written by Hughes in 1982. He points out that “goodwill is a product of business” (as cited in Garcia, 2007, p. 4), and “the nature of goodwill is a matter of personal interpretation” (as cited in Bloom, 2006, p. 5). Ding, Richard, & Stolowy (2008) compare the history of accounting for goodwill under the influence of two corporate governance models of stakeholder model and shareholder model in four countries: the US, the UK, Germany and France. They propose that, from documentation tracing the development of accounting for goodwill spanning from the 1880’s and 1900’s through to the current period, accounting for goodwill has moved through four phases (Ding et al., 2008). The first phase is characterised with immediate or rapid expenses while the second with writing-off against equity. The third phase involves the recognition of goodwill as an asset followed by amortisation usually over an arbitrary period of 20-40 years. The fourth and current phase includes the recognition of goodwill as an asset but without the systematic amortisation. During the last phase, goodwill is required to be tested for impairment, with any impairment restricted from being reversed in subsequent years or periods (Ding et al., 2008).

According to Ding et al (2008), the prudent immediate or rapid expensing method was only practiced at an early stage around 1800 to 1900 in the US, when stakeholder-



dominated models favored a conservative accounting approach. In contrast, capitalisation of goodwill followed with regular impairment testing is an advantage to short-term oriented shareholders (Ding et al., 2008). The second phase was very similar with the first. It adopted a conservative approach to write off goodwill against equity. The second approach had the advantage of reserving the scope of the income statement to those transactions that were regarded as 'business as usual' (Ding et al., 2008). The predominance of practices of the third phase (capitalisation and systematic amortisation) began from 1970 in the US, following the US Financial Accounting Standards Board (FASB) issuing APB Opinion No. 17, and then this phase was followed by the other countries (Ding et al., 2008). The last phase, beginning in July 2001 through to the current practice in the US, has been under the regulation of Statement of Financial Accounting Standards (SFAS) 141 (accounting for business combinations) and SFAS 142 (accounting for goodwill and other intangible assets), and this regulation sought to adopt a two-step process of periodic goodwill impairment testing (Ding et al., 2008). Under the regulation of International Accounting Standards, the history of accounting for goodwill followed the similar phases with the US and other countries. From 1983 to 1993, accounting for goodwill was regulated by three solutions corresponded to Ding et al.'s first three phases. After that, this was changed to only allow one option of amortising goodwill in a fixed period during the period of 1993 to 2004. From March 2004, goodwill impairment testing regime took effect, this was after the International Accounting Standards Board (IASB) revised the three IFRS standards governing the accounting treatment of goodwill, to move towards international convergence, particularly with US GAAP (Jerman & Manzin, 2008). These three standards are IFRS3-Business Combinations, IAS36-Impairment of Assets and IAS38-Intangible Assets. The most recent addition regarding goodwill impairment testing process is FASB's Update No. 2011-08 - Intangibles - Goodwill and Other (Topic 350) in the US: Testing Goodwill for impairment. This new update is required for US companies with fiscal years beginning after December 15, 2011. Under this new update, companies have an option to determine whether there is a greater than 50 percent chance that the fair value of the reporting units containing goodwill is less than their carrying amount. Companies can perform a qualitative assessment of the totality of events and circumstances including but not all-inclusive examples listed in this update, such as, deterioration of economy, industry and market consideration, cost factors and overall financial performance (FASB, 2010). The purpose of this update is to reduce the cost

and complexity of performing the first step of the two-step goodwill impairment testing for both public and private companies (FASB, 2010).

## **2.4 Transition from Amortisation to Impairment in New Zealand**

Up to 2005, purchased goodwill in New Zealand was amortised over an arbitrary 20-year period (Wong & Wong, 2005). This systematic write-down of the future economic benefit of the acquired business seems inappropriate given the intention of most going concerns is to increase a future economic benefit rather than reduce it. The practice of amortising goodwill had survived for some time, supported by the concept of objectivity, that required only identifiable and reliably measurable assets and liabilities be included in the financial statements. In early 2000, the debate surrounding the amortisation of goodwill shifted. After that, the IASB prohibited the amortisation practice in favor of periodic impairment testing. For New Zealand, this adoption was transitioned over the period of 2005-2007. Although the current practice is consistent with the notion of growing future economic benefit, the application of the impairment test to goodwill has been problematic. The specific challenges surrounding the application of the impairment test to goodwill are discussed below and in greater depth as part of the literature review chapter.

After the initial recognition of goodwill under NZ IAS38 paragraph 11, NZ IAS36 paragraph 80 requires that goodwill acquired from a business combination should be allocated to acquirer's cash-generating units (CGU) since the acquisition date. NZ IAS36 paragraph 90 requires a reporting entity to test the impairment for each CGU annually and whenever there is an indication that the unit may be impaired. This testing is done by two steps: comparing the carrying amount of the CGU with its recoverable amount; if the carrying amount of the unit exceeds the recoverable amount, the entity should recognise the impairment loss of the CGU and allocate this loss firstly to goodwill of the unit and then to other assets of the unit on a pro rata basis. The impairment testing process is one directional and can only resulting in either maintaining the status quo or a reduction in the value of the assets being tested. Assets that have been impaired may have this reversed in a subsequent year. In the case of goodwill, this reversal of prior impairment is not permitted (NZ IAS36 paragraph 124)

(NZICA, 2011b, p. 40).

## **2.5 Why Goodwill is of Special Interests Now**

Issues related with goodwill have become challengeable under today's changing economy and the operation of business. These challenging factors include the following. Service businesses and technology companies continue to show an upward tendency and these businesses have few physical assets and more intangible assets including goodwill. Companies need to consider market capitalisation as an informative indicator during the impairment testing process, especially during periods of economic uncertainty or recession. Goodwill accounting has grown in relevance and interest with the increasing number of businesses engaging in merger and acquisition activities. The increase in business combinations invariably results in the creation of goodwill and thereby triggers the need to account for it. In the recent past, investors have shifted their focus from short-term earnings performance to long-term financial viability and economic performance. This in turn has sparked an interest in goodwill and the impact of goodwill impairment. These factors, accompanied with the increasing proportion of goodwill in acquisition price and in total assets, have challenged the goodwill accounting standards setting and companies' practices under these standards.

Carrying amount of goodwill on balance sheets is so substantial that potential impairment will have a huge impact on future earnings. For example, in 2011 Duff & Phelps and the Financial Executives Research Foundation (FERF) examined the practices of over 5000 US publicly traded companies, and they have found that average goodwill intensity, as measured by goodwill to total assets, ranged from 12.3% in 2006 to 12.7% in 2010. The highest average goodwill intensity of 22% was in healthcare industry. This result was followed by 20.9% in consumer sales industry, 17.9% in telecommunication industry and 16.4% in information technology industry (Duff & Phelps, 2011). The survey results undertaken by Mazards (2009) show that, in over 100 acquisitions made by the largest 50 companies in the FTSE 250 UK in 2008, goodwill represents about 70% of total acquired intangible assets. This high level of goodwill mainly comprised of three components: synergies, market entry and the value of workforce (72% of total goodwill) (Mazards, 2009).

## **2.6 Prior Studies on Goodwill and Goodwill Impairment**

This section reviews the issues related to both historical and contemporary accounting treatment of goodwill. Some early literature focus on initial recognition of purchased goodwill, components of purchased goodwill and the effect of previous systematic amortisation (Brookes, 1995; Eldridge, 2005; Henning, 1994; Henning, Lewis, & Shaw, 2000; Johnson & Petrone, 1998; Wang, 1993; Wang, 1995). More recent literature discusses the goodwill impairment process and the challenges surrounding its implementation (Beatty & Weber, 2006; Carlin & Finch, 2008 a; Guler, 2007; Hayn & Hughes, 2006; Li & Sloan, 2011; Ramanna & Watts, 2010). Recent empirical studies and accounting review bodies address the issues of compliance and disclosure practices in different countries (Carlin & Finch, 2008 b, 2010 b, 2010 c, 2010 d; Carlin et al., 2009; Carlin, Finch & Tran, 2010; Carlin, Ji & Finch, 2010; Bepari, Rahman & Mollik2011; Comiskey & Mulford, 2010; Mazards, 2009; KPMG, 2011; Parkinson, 2009; Carlin, 2008 b; Petersen & Plenborg, 2010; Wiese, 2005). In particular, Carlin & finch (2010 b, 2010 d) and Bepari, et al (2011) have focused on the implementation practices from Australian firms. In response to Carlin & Finch's studies, Australia and New Zealand researchers have made a number of commentaries challenging their research method and design (Bradbury, 2010; Gallery, 2009; Lonergan, 2009 a). Although not all the issues reviewed in this chapter will be examined in this study, it is necessary to review these studies because all these issues are associated with the reliability and relevance of goodwill accounting information in terms of recognition, impairment measurement and disclosure. The broad range of issues surrounding goodwill is in itself an indication of the evolutionary nature of this subject area and the accommodating changes in accounting standards to address them. A review of a great deal of relevant literature enables this study to thoroughly investigate the reliability and relevance of goodwill accounting treatment. These studies will be further discussed later in this research.

### **2.6.1 Debates of Treating Goodwill as an Asset**

As discussed earlier, goodwill is not specifically identifiable. Instead, goodwill represents the premium paid for a business during an acquisition, beyond the fair value of the assets of that business. This premium is an acknowledgement of the synergies in the form of future sales, cost savings from economies of scale and lower cost of capital (Gore & Zimmerman, 2010). Goodwill should not be reported as an asset on the balance sheet because these synergies do not have independent existences and identifiable resources (Gore & Zimmerman, 2010). Similarly, Gill (2008) argues that the method of expensing goodwill should not be criticised, rather the inappropriate or excessive capitalisation should be challenged. According to Gill (2008), the acquisition price is likely to be excessive as acquirers tend to overestimate acquisition benefits, and underestimate post-acquisition difficulties. Acquirers are unlikely to recognise the reduced benefit of goodwill until some time after the acquisitions. This is especially true if the acquisition is absorbed into the core operations of the acquirers. The excessive acquisition price coupled with the disappointing post acquisition performance of the acquired entities, proves that if not all, at least some components of goodwill are wasting assets with a finite life, thus they should not be capitalised (Gill, 2008). Henning et al's (2000) empirical study found that synergy and going concern components of goodwill are assets while the residual component of goodwill is not. However, Wang (2011) fails to find evidence as to whether goodwill is a wasting asset or not. He suggests systematic amortisation supplemented with periodic impairment testing would be the best practice, in order to meet the primary accounting qualities of relevance, reliability and conservatism. Finally, Johnson and Petrone (1998) propose that goodwill should not be recognised as an asset if, despite meeting the definition of an asset, it does not satisfy the other three criteria of measurability, relevance and reliability.

### **2.6.2 Goodwill Intensity (as Percentage of Goodwill over Total Assets)**

Studies found that companies carry significant amounts of goodwill, both in dollar value and as a percentage of total assets, on their balance sheets (Henning, 1994; Carlin & Finch, 2010 b). Under the current goodwill impairment regime, it is possible that companies continuously carry the high level goodwill for a long period or even indefinitely. Financial statements users need to take this high level goodwill into

account when they analyse companies' financial position and operation efficiency. The likelihood of impairment is very high during prolonged economic downtime. According to the theory of synergy, goodwill represents the excess of purchase price above fair value of net assets acquired. It indicates the prospected future growth in cash generation in these assets. The higher the goodwill amount is the greater expectation of the company is of being able to generate future synergy cash flows.

Numerous literature has discovered the goodwill intensity issue. In a sample of 1307 firms' SEC annual reports in 1992, Henning (1994) found that goodwill represents approximately 8% of total asset and averaging 72% of the absolute value of income was from continuing operations. Carlin and Finch found an average 15.4% of goodwill over total assets in their sampled 105 Australian firms and 19 New Zealand firms in 2007 (Carlin & Finch, 2010 b). Petersen & Plenborg (2010) survey 62 Danish firms in 2006 and they found that on average goodwill accounted for 6% of total assets. They also found that the dollar value of goodwill ranges from DKK 1 million to DKK 28.5 billion. Ramanna and Watts' (2010) study show that, among the sampled 124 US firms, the average percentages of goodwill over total assets was 14.1% in 2003 and 25.6% in 2006. Gore and Zimmerman (2010) demonstrate a large amount of goodwill impairment being recognised after recent global recession. For example, Time Warner Inc. (US\$25 billion), ConocoPhillips (US\$39 billion), Neiman Marcus (US\$291 million), Ann Taylor Stores (\$286.5 million), Dick's Sporting Goods (\$193.4 million) are all examples of these phenomenon. Duff & Phelps' (2011) statistical reports show that average goodwill intensity by industry has been stable from 12.3% in 2006 to 12.7% in 2010 and goodwill intensity has been constantly higher in industries with significant mergers and acquisition activities from 2006 to 2010. These industries are healthcare, consumer sales, IT and telecommunication. Carlin, Ji & Finch (2010) found that highest goodwill intensity for Australia firms is in software services and consumer services industries. Goodwill intensity, as a characteristic of a firm, is often used by researchers as an initial screening mechanism before testing for subsequent impairment and compliance level. Petersen & Plenborg (2010) found that a modest magnitude of goodwill, 6% as measured by goodwill divided by total assets, in sampled Danish firms, does not explain the inconsistencies between actual practices and standard requirements. In contrast, Bepari et al (2011) showed evidence that goodwill intensity had significant impact on firm's compliance level during financial crisis period of 2008 and 2009.

It would appear from these studies that relatively high goodwill intensity is associated with the incidence of mergers, and is significant in the technology and scientific research orientated industries. Furthermore, goodwill intensity is a forerunner of accounting challenges, associated with impairment and reporting compliance.

### **2.6.3 Components of Goodwill**

Recognition of goodwill components is one the most complicated and unverifiable goodwill accounting practices. It is the fundamental step of goodwill accounting and it will determine the extent of future goodwill impairment. Both the IASB and the FASB share similar views regarding the different components of purchased goodwill. There are six components to purchased goodwill, identified by the IFRS3 paragraph BC313. These are listed below:

Component 1—the excess of the fair values over the book values of net assets

Component 2—the fair values of other net assets not previously recognised.

Component 3—the fair value of the going concern element

Component 4—the fair value of the expected synergies and other benefits

Component 5—overvaluation of the consideration from errors

Component 6—overpayment or underpayment by the acquirer

(IASB, 2008, p. 83)

Both IASB and FASB conclude that component 3 and component 4 are core components of goodwill, because they meet the conceptual definition of an asset. Acquirers are required to make every effort to eliminate or reduce components 1, 2, and 5. As far as the component 6 overpayment or underpayment by the acquirer, IASB believes that in practice any overpayment or underpayment is unlikely to be detectable or known at the acquisition date (IASB, 2008, pp. 84,94). IFRS3 paragraph B64 (e) requires a qualitative description of the factors that make up the goodwill recognised (IASB, 2008, p. 30). There is the risk that components 1, 2, 5 and 6 may be included in

goodwill, due to technical measurement errors, incorrect recognition of other assets, or gain or loss of an acquisition (Johnson & Petrone, 1998).

Overall, empirical results support the components approach of goodwill expected by standard setters and also the theoretical argument from Johnson & Petrone (1998). Eldrige (2005) found that 45% of acquisition goodwill is attributed to the going-concern goodwill value, 19% to acquisition synergies and 36% to residual goodwill, misvaluation or overpayment, in the sample of 51 banks acquisitions. Henning et al (2000) found that core goodwill consists of the value of the going-concern goodwill, with 21 % of recognised goodwill, and the synergy goodwill, with 48% of recognised goodwill. They also found that the two core components are positively related to market value whereas investors place negative weight to residual component of goodwill in the form of overpayment or overvaluation (Henning et al., 2000). In contrast, Bugeja and Gallery (2006) argue that previous US research only provides limited and inconclusive evidence to show the association between market value and different components of goodwill. Their results show that goodwill is significantly associated with the market value of equity.

#### **2.6.4 Practices under Previous Amortisation Period**

From 1970 to 2001, US GAAP (APB Opinion No. 17 accounting rule) required that goodwill acquired after October 31 1970 is to be amortised by systematic charges to income over a useful life not exceeding 40 years (Jerman & Manzin, 2008). The rationale of having a useful life of 40 years is to correspond to the assumed maximum service period of one generation of employees (Nurnberg, 2000). It seems that this assumption is based on either goodwill being maintained by one generation of employees or goodwill representing the value of employees. The turnover of staff and the introduction of new staff are unlikely to correspond with this seemingly arbitrary timeline.

Accounting practice of amortisation period is closely related with economic substance of goodwill but it is also subject to management choices. According to Wong and Wong



(2005), in New Zealand, before the first voluntary adoption of NZ IFRS from 01 January 2005, accounting treatment of goodwill was under the regulation of New Zealand GAAP FRS-36 and ED-87. This regulation required that the amortisation period for goodwill should not exceed 20 years (Wong & Wong, 2005). Disregarding the difference between 20 and 40 years requirements, the main argument about goodwill amortisation period is whether the 20 or 40 years maximum allowable timeline is consistent with the diminishing speed of goodwill economic value. Some researchers claim that goodwill has a very short economic life. They claim that even under optimum circumstances, it is very hard to maintain goodwill as an expectation of above-normal or super profits beyond 5 years after acquisition (Brookes, 1995). This is especially true in today's highly unpredictable and competitive business environment. Other commentators argue that goodwill has an indefinite life as it will be continuously maintained in a successfully business (Wang, 1995).

Empirical findings of goodwill amortisation period are mixed. Wang (1993) provides evidence that investors perceive firms currently practising a faster goodwill amortising speed than the speed of its economic value diminishing. Wang (1993) believes that the reported goodwill assets by these firms have been systematically understated. This evidence suggests that the 40-year amortisation period should be further extended, even though an immediate change of the current standard may not be called for. Henning (1994) found that over 60% of sampled 1307 US firms in 1992 have amortised all of at least part of their goodwill over the maximum allowable period of 40 years. While the rest of firms either amortised in a single period of less than 40 years, or a multiple period of less than 40 years, or no clear discrimination of amortisation policies. According to Henning (1994), this result represents a vague and complex view of goodwill as homogeneous, in its economic substance nature. Henning (1994) also found that at least a part of goodwill has little continuing value, due to large amount of write-offs in short amortisation period. Henning's results are similar with early research done by Duvall, Jennings, Robinson, & Thompson II (1992), which shows a wide variation of goodwill amortisation periods with 20% of firms amortising goodwill in a multiple period including 40 years and 42% of firms amortising goodwill for 40 years. Henning (1994) found that 16% of firms practiced less than 10 years amortisation period compared with the number of 10% from Duvall et al (1992). Hall (1993) found that managers consider economic consequences of political costs and debt contracting

costs in deciding the number of amortisation years. This is despite the strict requirements of maximum allowable amortisation period of 40 years under US GAAP APB 17. These mixed findings show that some goodwill has shorter economic life than the maximum allowable amortisation period of 20 or 40 years.

### **2.6.5 Write Off above Systematic Amortisation**

Writing off goodwill above normal systematic has been practiced during previous goodwill amortization period Henning (1994). This practice not only reduces companies' earnings above normal charges, but it also questions the management's decisions and judgments for a business acquisition as the expectation of economic benefit generated from goodwill has to be discounted. This is particularly obvious if write-off is associated with a recent acquisition. In the absence of any triggering event, a write-off of goodwill above normal systematic, challenges the management originally estimated period as this estimation has to be shortened due to the less economic benefits provided by goodwill. On the contrary, this write-off can be seen as a flexible adjustment over the fixed period. Therefore, Wang (2011) argues that the best goodwill measurement practice is the combination of systematic and periodic impairment testing. There are two empirical studies supporting this view. Firstly, Henning (1994) reports that from 1986 to 1992, a total of 328 US firms have recorded 536 one-time goodwill write-offs. The proportion of these one-time write-offs to total goodwill increased from 3.8% in 1986 to 12.1% in 1992. The amount of these write-offs in dollar amounts and in proportion of total assets also increased substantially. These write-offs could not be explained by the common contention of management opportunistic behavior because the test results of these firms' strong financial positions in terms of leverage, return on asset and return on equity (Henning, 1994). Therefore, Henning (1994) concludes that although the results do not support the argument of denying goodwill as an asset, he suggests that some goodwill components produce shorter economic benefits than originally expected by management. Secondly, Chambers (2006) tests the associations between three as-if accounting systems and stock price for 5262 sampled US firms in post transition years 2003 to 2005. These three methods are systematic amortisation only, combined systematic amortisation and annual impairment testing. His results show that annual impairment testing of goodwill increases the value relevance of financial reports. The elimination of systematic amortisation has reduced the quality of financial reporting. Overall, a system combining impairment and amortisation provides

the most value relevant goodwill numbers (Chambers, 2006).

## **2.6.6 Practice during Transition Period**

Much research has studied the transitional impact of current goodwill impairment testing regime. Beatty and Weber (2006) identified several management incentives in practicing goodwill impairment, when US firms adopted mandatory goodwill impairment testing regime in 2001. They sampled 553 firms who were relatively more likely to take goodwill write-offs in 2001. They found that these firms had opportunistically used the unverifiable nature of the new regime to manipulate accounts in two ways (Beatty & Weber, 2006). They delayed or never recognised the impairment expense recognition (delayed above-the-line), if the firms had debt contracting, management earning-based bonus plan and financial-based exchange delisting requirement. The second way they manipulated accounts was to accelerate the recognition of impairment (immediate below-the-line) under the incentives of shorter management tenure and higher stock market multiple (Beatty & Weber, 2006).

### **2.6.6.1 Below-the-line Accounting Treatment (“Clean the House” or “Big Bath”)**

Evidence from prior literature shows firms’ strong tendencies to accelerate goodwill impairment, during transition years, to minimize future write-offs. Such impairments have been viewed as a past problem and have no impact on the future firm value. For example, Henning et al (2004) found that the transition period write-offs of US firms significantly exceeded predicted write-offs measured by abnormal return in market-based model and residual income in earnings-based model. Wiese (2005) analysed US companies with high goodwill impairments in 2002, the year of adoption of SFAS 142. Seven of those companies had significantly higher amounts of goodwill impairment, from \$14 to \$2410 million, in 2002 in comparison with the amortisation amounts in 2001 and the impairment amounts in 2003. Write-offs consisted of the major part of their losses in 2002, with one exception of Boeing Co (Wiese, 2005). However, this finding is based on the sample of seven companies only, which is unconvincing evidence. Cheng (2008) found evidence of the practice of “clean the house” by US

firms through, the writing-off of excess goodwill, as cumulative effects of accounting changes in the adoption year of 2002. These firms had worse earnings performance in the adoption year than those in other years. According to Cheng (2008), the total impairment of sampled firms added up to be more than three times the combined earnings, with some sizeable impairment losses over one billion. Although the practices in transition year are complex and uneven across firms, 37 firms with write-offs, 73% of total 45 firms, attribute the impairment losses to cumulative effects of accounting changes. Only two companies reported goodwill impairment as operating losses in adoption year of 2002. Cheng (2008) further explains the possible reason for this unusual accounting practice is that companies took a one-time opportunity to “clean the house”; as a result, the high impairment of goodwill did not reflect the firms’ true performance.

#### **2.6.6.2 Above-the-line Accounting Treatment (Delay or Avoid Impairment)**

Researchers also found evidence of above-the-line accounting choice in practice. For example, Guler (2007) studied 260 sample firms who were likely to take goodwill write offs in transition years. He found that among 130 firms with actual write-offs, 55 firms did not take a write-off in the transition period, but took a write-off in the subsequent period. Among the other 130 firms without write-offs, 123 firms did not take a write-off in the transition and subsequent periods; even though they were expected to take write off. Guler (2007) found that the association between the management’s decision concerning write off and the reporting incentives, including bonus grants and in-the-money option in these non-write off firms answered the question of why the firms delayed write offs.

#### **2.6.7 Debates Surrounding Current Impairment Testing**

Historically, the diverse accounting treatments of goodwill have resulted in an on-going debate regarding its recognition, measurement and disclosure. The debates related to systematic amortisation and periodic impairment testing are for the subsequent measurement methods since both methods are based on the assumption of goodwill

being an asset. Although systematic amortisation has been abolished, the current periodic impairment testing method is the subject of continuing debates. Opponents raise a number of aspects to this periodic impairment testing regime. They argue that it is hard to maintain goodwill indefinitely and the periodic impairment testing is not a meaningful way to reflect the consumption of goodwill's economic benefits (Brookes, 1995; Carlin & Finch, 2008 b). The impairment testing process is unverifiable and is less objective in comparison with annual systematic amortisation (Beatty & Weber, 2006; Ramanna & Watts, 2010). They believe that the subjecting nature of the impairment process leads to a further avenue for management to manipulate the financial reports (Beatty & Weber, 2006). On the other hand, there are many supporting evidence for the periodic impairment-testing regime. Firstly, the standard setting bodies, such as FASB (2001), believes that the periodic impairment testing regime can better reflect the underlying economics of goodwill as an intangible asset. They suggest that it provides financial statement users a meaningful understanding of the value of goodwill and the company's future profitability and cash flows (FASB, 2001). Many researchers also support the periodic impairment testing regime. For example, goodwill could well be maintained to an indefinite useful life, and the value of goodwill does not always decline over time (Wang, 1995; Wiese, 2005). The pre-determined amortisation period could be arbitrary (Bloom, 2006). Amortisation usually takes a large proportion of earnings and results in a fluctuant financial performance (Wiese, 2005). Finally, Wang (2011, p. 2) suggests that, "both amortisation and impairment testing have a certain degree of subjectivity, and each have different shortcomings either in theoretical support or implementation difficulties. There is no perfect solution to satisfy everyone on the choices of how to report the decline in the value of goodwill".

## **2.6.8 Practices during Post Transition Period**

As discussed in previous section, accounting treatments for goodwill have experienced four phases in the last century. Although the debates regarding current periodic goodwill impairment testing regime are still ongoing, it seems that the impairment testing process may not be eliminated in the near future. More and more researchers have moved their focus to examine the practices and compliance by companies. Many recent studies have investigated the practices and compliance by Australia firms after their first year of adopting IFRS in 2006. This section consists of three parts. The first

part is an outline of New Zealand accounting standard requirements related to goodwill impairment testing and calculating process. The second part is a summary of the results from accounting professional reviewing bodies. The last part is the review of existing studies.

#### **2.6.8.1 Requirements under NZ IFRSs**

The process of testing and calculating goodwill impairment is not an easy task as the techniques and methods under NZ IAS36 are rather flexible and general, thus, the interpretations and applications of these requirements vary significantly. This section will discuss the recognition and allocation of goodwill from the acquisition date, the timing of goodwill impairment, and the process of testing and calculating goodwill impairment. All these requirements may be applicable and important when reviewing prior literature and interpreting findings from sampled companies in this study.

##### ***Definition and recognition of goodwill***

NZ IFRS3 paragraph 32 defines goodwill, at the acquisition date, is measured as the excess of the aggregate of consideration transferred, any non-controlling interest and acquirer's previously held equity interest in the acquired entity over the net of identifiable assets and the liabilities (NZICA, 2011a, p. 20).

##### ***Timing and allocating of goodwill impairment***

NZ IAS36 paragraph 90 & 104 require a reporting entity to test the impairment loss of a cash-generating unit to which goodwill has been allocated. This test should be exercised annually and whenever there is an indication that the unit may be impaired, any difference, resulted from the testing, between the carrying amount of the unit, with the recoverable amount of the unit, is recognised as the impairment loss. This impairment loss should be firstly allocated to goodwill within the unit and then to other asset of the unit on a pro rata basis (NZICA, 2011b, pp. 33,35).

### ***Examples of indications***

NZ IAS36 paragraph 12 lists some examples of the external and internal indications of impairment testing. The external sources include market value declines, negative changes in technology, markets, economy, or laws, increases in market interest rates and company stock price is below book value. The internal sources include obsolescence or physical damage of an asset, significant changes with an adverse effect on the entity and worse economic performance than expected (NZICA, 2011b, p. 12).

### ***Reversal of goodwill***

NZ IAS36 paragraph 124 & 125 requires that an impairment loss recognised for goodwill should not be reversed in a subsequent period, as the increase of goodwill in the post acquisition period is likely to be an increase in internally generated goodwill (NZICA, 2011b, p. 40).

### ***Calculating the Recoverable Amount of a CGU***

NZ IAS36 paragraph 74 states that the recoverable amount of a cash-generating unit is the higher of the fair value less costs to sell of the cash-generating unit and its value in use (NZICA, 2011b, p. 28). According to (Bepari et al., 2011; Carlin & Finch, 2008 a, 2010 b, 2010 c, 2010 d; Carlin, Ji & Finch, 2010), the value in use method is widely applied by companies, and the use of present value techniques is the most prevalent in measuring value in use. This study only focuses the calculation and disclosure requirements related to the value in use method.

NZ IAS36 paragraph 30-57 have extensive requirements of how to calculate the recoverable amount of a cash-generating unit by present value technique of value in use method (NZICA, 2011b, pp. 20 - 25). The following key estimates (referred as key parameters by Carlin & Finch (2008 b)) and the relevant assumptions regarding this technique have been emphasised by the standards, professional accounting reviewing bodies and prior literature:

- the number of cash-generating units (CGUs)
- cash flow forecast period

- discount rate
- growth rate
- disclosure of key assumptions and estimates, sensitivity analysis

### ***The Number of CGUs***

Identifying number of CGUs is crucial for the goodwill impairment testing and calculation process. This process is based on the assessment of the recoverable amount of the CGUs to which goodwill is allocated. NZ IAS36 paragraph 80 requires that, for the purpose of impairment goodwill testing, each unit or group of units to which the goodwill is allocated should meet the following two criteria. The first is to represent the lowest level within the entity at which the goodwill is monitored for internal management purposes. The second requirement is that a CGU is not larger than an operating segment (NZICA, 2011b, p. 30). This paragraph indicates that the number of cash-generating units should ideally exceed the number of segments for each reporting entity.

### ***Cash Flow Forecast Period***

Cash flow forecast period is used in the most recent financial budgets/forecasts to estimate the future cash flow projections of CGUs. According to NZ IAS36 paragraph 33, if cash flow projections are based on the most recent budgets and forecasts with extrapolation for periods beyond budgeted projections, the budgets and forecasts should not go beyond five years. If this period has to be over five years, the reliability of these projections should be demonstrated (NZICA, 2011b, p. 21).

### ***Discount Rate***

Discount rate is used to compute and reflect the expected present value of the future cash flows projections. According to NZ IAS36 paragraph 55, 56, 57 & A17, in measuring value in use, the discount rate used should be the pre-tax rate that reflects the current market assessments of the time value of money and the risks specific to the asset. The discount rate is the rate the entity would pay in a current market transaction to borrow money to buy a specific asset or a portfolio of assets. If a market-determined asset-specific rate is not available, an entity should use surrogates to estimate the discount rate by taking the following rates as a starting point:



- the entity's own weighted average cost of capital
- the entity's incremental borrowing rate
- other market borrowing rates

(NZICA, 2011b, pp. 25, 51).

### ***Growth Rate***

Growth rate is used to extrapolate cash flow projections beyond the period covered by the most recent budgets/forecasts. NZ IAS36 paragraph 33 & 36 requires that, when an entity estimates cash flow projections beyond the period covered by the most recent budgets/forecasts, the entity should use a steady or declining growth rate for subsequent years, unless an increasing rate can be justified. This growth rate should not exceed the long-term average growth rate for the products, industries, or country or countries in which the entity operates, or for the market in which the asset is used, unless a higher rate can be justified. If appropriate, the growth rate is zero or negative. NZ IAS36 paragraph 37 further indicates that, when conditions are favorable, competitors are likely to enter the market and restrict growth. Therefore, entities will have difficulty in exceeding the average historical growth rate over the long term for the products, industries, or country or countries in which the entity operates, or for the market in which the asset is used (NZICA, 2011b, pp. 21,22).

The key estimates (input parameters) discussed in above sections are considered as compliance benchmarks in later sections for examining the current practices from New Zealand companies included in this study. The findings from previous studies will also be taken into account to make comparison between this study and previous ones.

### ***Disclosure Requirements***

NZ IAS36 paragraph 126 requires an entity to disclose the amount of goodwill impairment loss recognised in profit or loss during the period, and the carrying amount of goodwill allocated to the unit (group of units). According to NZ IAS36 paragraph

130, an entity should disclose the following for each material impairment loss recognised or reversed for goodwill:

- the events and circumstances that led to the recognition of the impairment loss
- a description of the cash-generating unit
- the amount of the impairment loss recognised
- the basis on which the unit's (group of units') recoverable amount has been determined (i.e. value in use or fair value less costs to sell)

(NZICA, 2011b, p. 40)

If recoverable amount is value in use, NZ IFRSs require the disclosure of key assumptions to support the estimates of the CGUs (as discussed above) including a range of economic conditions surrounding the CGUs and with greater weight to relevant external evidence. Disclosure of a description of management's approach to determining the value(s) assigned to each key assumption is also required under NZ IAS36 paragraph 33 & 134 (NZICA, 2011b, pp. 21,42). NZ IAS36 paragraph 134 also requires an entity to disclose a reasonably possible change in a key assumption, which would cause the CGUs' carrying amount to exceed the recoverable amount.

Furthermore, the standards require extensive disclosure relating to the process of goodwill impairment testing and calculating. These requirements will be considered collectively with the findings of previous studies and information availability of this study, in order to establish the suitable examination benchmarks for sampled companies.

#### **2.6.8.2 Impairment under Economic Downturn**

As the result of high premiums paid for acquisitions during the market blooming period from 2002 to 2007, companies carry significant levels of goodwill on their balance sheets (Parkinson, 2009). However, from the start of the credit crisis in August 2007 until the height of the financial crisis around the beginning of 2009, deteriorated economic conditions and the financial market has significantly affected the operation of business (Duff & Phelps, 2011). A recent report from Desjardins Securities shows that

total amount of goodwill on the balance sheets of companies on the S&P/TSX composite index has reached \$168-billion at the end of the third quarter of 2008. Companies had reported at least \$13-billion goodwill write-offs, including some sizable amounts over \$1-billion from Aeroplan, Nortel Networks Corp, CanWest Global Communications Corp, Great-West Lifeco Inc and Gerdau Ameristeel Corp (Parkinson, 2009).

According to Parkinson (2009), companies are suggested to absorb goodwill write downs, under the already discounted stock market, by reason for cleaning up their balance sheets. Giacomino and Akers (2009) show that goodwill write-offs have increased during 2008 and will likely continue into 2009. They predict the high possibility of big bath earnings management in 2009 since many firms carry substantial amounts of goodwill on their 2008 balance sheet and the uncertainty of the economy and the financial markets continues. Comments from accounting professional bodies also indicate the potential goodwill impairment in 2009, for example, one of the partners from PWC' Transaction Services warns,

“With further stock price declines in the beginning of 2009 and continued uncertainty in the markets, more goodwill impairment announcements are likely around the corner. However, management teams that are anxious about announcing goodwill impairment in today's market often overlook one key item - recent goodwill impairment announcements typically have had a muted effect on stock prices by the time of the announcement” (PWC, 2009a, p. 1)

Some empirical studies show an inconsistent result with the expectation above. For example, Comiskey and Mulford (2010) found that decreasing share prices and the deterioration of the economy are two common triggers for goodwill impairment in 2009. However, they also present evidence to show that, for most companies without goodwill write-offs, market value is not reliable or meaningful in indicating goodwill impairment under downtime. Managers perceive the decline in fair value as a temporary event, and therefore hold back from writing off goodwill (Comiskey & Mulford, 2010). A study from KPMG reveals that for a total of 1879 US-based public companies, goodwill impairment charges have reduced from \$92 billion in 2009 to \$39 billion in 2010. The number of companies recording goodwill impairment declined from 217 in 2009 to 129 in 2010. The reasons for these downturn changes, as stated by Seth Palatnik, aKPMG

partner, are the improvement in the U.S. economy and stock market since 2009 and the large write-offs in previous year (KPMG, 2011).

### **2.6.8.3 Timing/Determinants of Goodwill Impairment**

As Hail, Leuz and Wysocki (2009) point out; there is a trade off between reducing the amount of reporting discretion and allowing managers to convey their private information, through the financial statements. Some researchers question the expectation of the standards board, that financial statement users will have a better understanding of the value of goodwill on future performance conveyed by managers and receive less biased accounting information. Researchers support their objections to the IASB using agency-based earnings management theory and empirical studies which provide evidence of managers using discretion in determining the timing and extent of goodwill impairment (Beatty & Weber, 2006; Guler, 2007; Ramanna & Watts, 2010). Apart from the findings from these researchers, some survey results indicate managers have difficulties in applying standard requirements, as these requirements are rather complicated and vague. In order to test the relationship between the timing of goodwill impairment and the managers' incentives, most literature has applied a two-fold procedure. The first is the significant relationship between managers' incentives (e.g. bonus plan, debt covenant) and the practices of non-write-offs in the firms with indications to write off goodwill. The second is less significant or no relationship between managers' incentives and the practices of write-offs in the firms with indications to write off goodwill. Next section will review the impacts of the economic and acquisition indicators and the managers' incentives in determining goodwill impairment.

#### ***Economic and Acquisition Indicators***

NZ IAS36 paragraph 90 requires that a cash-generating unit to which goodwill has been allocated should be tested for impairment annually and whenever there is an indication that the unit may be impaired (NZICA, 2011b, pp. 33,35). A list of indications from external and internal sources of information as a minimum are given under paragraph 11 and 12 of NZ IAS36, but entities should not be limited to those indications in practice (NZICA, 2011b, p. 12). These indications are not determining factors in

goodwill impairment testing, but they provide certain level of evidence as to whether managers have timely recognised goodwill impairment or have delayed or avoided the recognition.

Researchers have found that annual reports usually contain insufficient disclosure of segments reporting information, thus the predictability of goodwill impairment is not available for financial statements users (Hayn & Hughes, 2006). However, some indicators from business acquisitions and acquirers' and acquired entities' subsequent performance appear to be able to predict goodwill write-offs (Hayn & Hughes, 2006). The acquisition indicators found by previous researchers are as following. Payment premium (acquisition price in excess the acquired firm's average market value over the preannouncement period) (Hayn & Hughes, 2006; Li et al., 2011), goodwill as percentage of acquisition cost (Al-Khadash, 2009; Hayn & Hughes, 2006; Jarva, 2009), stock as main mode of consideration (Hayn & Hughes, 2006; Li et al., 2011), multiple bidders (Li et al., 2011). Subsequent performance indicators include: Segment-level ROA and change in segment-level ROA (Hayn & Hughes, 2006). Firm-level ROA (Guler, 2007; Jahmani et al., 2010). Change in firm-level ROA (Al-Khadash, 2009; Jahmani et al., 2010). Book value of firm equity is greater than market value of equity (Beatty & Weber, 2006; Churyk, 2005; Jarva, 2009; Ramanna & Watts, 2010). Decrease in stock price since the acquisition date (Churyk, 2005). Earnings before goodwill impairment and the presence of a loss (Jarva, 2009). History of operating losses or cash flow losses (Jahmani et al., 2010). Operating income after depreciation scaled by sales as a measure of pre-impairment operating margin (Li & Sloan, 2011). Performance and efficiency measured by Data Envelopment Analysis (DEA) model (Vichitsarawong, 2007). In the later section of findings and discussion, some of these indicators will be applied to examine the practices from New Zealand companies included in this study.

Except for testing the impact of acquisition and subsequent performance indicators on the timing of goodwill impairment, some studies also test the period of delayed value write-down of goodwill. Hayn and Hughes (2006) found an average time lag of three to four years between the deterioration in the performance of the acquired business, and the actual write-down of that goodwill. This evidence suggests that the acquiring firms wait not only until some time has elapsed before the performance of the acquired entity begins to deteriorate from the acquisition year ("incubation" period), but also until the

economic condition of the acquired entity has worsened considerably. They analysed this opportunistic time lag may be due to the long waiting period of the uncertainty about the specific provisions of the final statement (Hayn & Hughes, 2006). Li and Sloan (2011) criticise the validity of Hayn & Hughes' study as the latter's primary sample period is governed by SFAS 121 (from 1988 to 1998) instead of the period under current goodwill impairment testing regime of SFAS 142. However, Hayn and Hughes (2006) have extended the sample to post transition period until 2004 to further examine the generalizability, which they call it as SFAS142 sample. The result in the SFAS142 sample yields considerably more accurate predictions than the prediction ability of write-offs in the primary sample. Hayn and Hughes(2006) show that the performance of acquired entities in this group are even worse than those in the primary sample in the year before write-off and the worse performance started earlier than those firms did in previously examined primary sample. The time-lag of goodwill impairment has also been found by Li and Sloan (2011), he shows that goodwill impairment lags deteriorating operating performance and stock returns by at least two years. All these evidence challenges the effectiveness of the new impairment testing rules in promoting timely reflection of the write-offs and carrying value of goodwill and hence, the credibility of goodwill as a substantial asset (Hayn & Hughes, 2006; Li & Sloan, 2011). Another different view of this lag of is from Parkinson (2009), he argues that managers may believe that market indicators under unusual economic downturn do not represent the market in a long term; moreover, goodwill impairment cannot be reversed once being recorded.

### ***Managers' Incentives***

Agency-based earnings management theory predicts that managers will use the discretion permitted by circumstances of accounting standards to opportunistically manipulate goodwill impairment. The following managers' incentives have been found in prior literature: Bonus plans (Beatty & Weber, 2006), in-the-money stock option (Guler, 2007), debt covenant (Beatty & Weber, 2006), CEO Reputation (Muller et al., 2009), management turnover (Beatty & Weber, 2006), CEO tenure (Ramanna & Watts, 2010), exchange delisting (Beatty & Weber, 2006), equity valuation (Muller et al., 2009), the sale of insider ownership (Muller et al., 2009), share repurchase and insider buying (Ramanna & Watts, 2010). All these studies examine managers' decisions on delaying or avoiding goodwill impairment when the market indicates the need of

impairments for firms with positive goodwill balance and book-to-market ratio greater than one. They found no evidence to show that the high occurrences of non-impairments are attributable to managers' conveying private information. Their findings indicate that managers opportunistically use the discretion under the new goodwill impairment testing regime. Although the managers' incentives and sampled periods in each study noticeably vary, the overall results are consistent.

#### **2.6.8.4 Reviews from Accounting Professional Bodies**

Accounting professional bodies periodically review companies' reported goodwill accounts and information. In 2007, the UK Financial Reporting Council (FRC) authorized its subsidiary Financial Reporting Review Panel (FRRP) to review the 2007 annual reports of 32 UK entities within the top 350 UK listed companies. The published comments regarding the quality of goodwill impairment practices show that there is an opportunity for companies to refine their goodwill disclosures (FRC, 2008). In addition, the effect of the deteriorating economy will result in goodwill issues becoming more material and trigger additional disclosures in 2008/2009. Detailed comments include:

- the disclosures were more generic than specific in nature
- no narrative information about the key assumptions
- information is not provided by cash-generating unit
- little disclosure was given on external sources of information
- only unquantified references to adjustments for risks specific to the relevant market
- differences between cash-generating units were not disclosed even though it was clear from commentary elsewhere in the report
- future growth expectations were disclosed within the business review rather than in the financial statements and not cross referenced

(FRC, 2008)

A survey undertaken by Mazards in December 2008 included 100 acquisitions made by the largest of the FTSE 250 companies based on market capitalization. Mazards' survey

shows a wide variation of discount rate and growth rate and the disclosures to be inadequate. The discount rate varied from 6% to 16% with an average rate used of 10.65%. The average growth rate used to extrapolate forecasts was 2.91% if excluding two outliers, one is 12.5% and the other is a range from 10% to 20% (Mazards, 2009). According to Mazards (2009), the discount and growth rates used by the companies surveyed are related to the state of the market economy.

#### **2.6.8.5 Compliance Issues from Previous Studies**

Compared with extensive empirical studies of determinants of goodwill impairment, fewer studies have investigated the compliance level in relation to the testing and calculating goodwill impairment. Overall findings from these studies are mixed and lack consensus. Most studies found evidence of non-compliance and non-disclosure in practice, especially in areas of the input parameters specified above (e.g. Carlin & Finch, 2008 a, 2010 a, 2010 b, 2010 c, 2010 d; Carlin, Finch & Tran, 2010; Carlin, Ji & Finch, 2010). Few studies found the compliance level with the standard requirements are increasing (e.g. Bepari et al., 2011). The purpose of empirical studies is not limited to the level of compliance. Investigating possible reasons for this non-compliance is the most contributable finding. Next section reviews previous studies according to the key estimates and assumptions, but not limited to them.

#### ***Disclosure Issues***

Sevin et al (2007) found evidence of inadequate basic disclosure of goodwill and goodwill impairment in the first year of SFAS142 adoption. In particular, they found that goodwill and goodwill impairment are not disclosed as separate line items on balance sheets and income statements. The discount rates used in the cash flow calculations, together with the circumstances leading up to the impairment loss, were also not disclosed (Sevin et al., 2007). A more recent study by Comiskey and Mulford (2010) investigates the annual reports of US firms from 2008 to 2009. They found that no effective disclosure was very common in these companies. Most firms did not disclose the actual discount rate used, although they used the technique of calculating present value of future cash flows for the cash-generating units. Discounts rates for



some companies were various, but this was consistent with the different industries they represented (Comiskey & Mulford, 2010). A small number of companies disclosed the changes in assumptions, such as discount rates, sales growth, margins, and income-tax rates, which would affect the estimated fair value of reporting (Comiskey & Mulford, 2010).

### ***Compliance Issues from Carlin & Finch's Studies***

Carlin, Finch and other researchers investigate the compliance issues in respects of numbers of cash-generating units, discount rate, growth rate and relevant disclosure issues for companies across the Asia-Pacific region including Australia, New Zealand, Singapore, Malaysia and Hong Kong (Carlin & Finch, 2008 a, 2008 b, 2010 a, 2010 b, 2010 c, 2010 d; Carlin et al., 2007; Carlin et al., 2009; Carlin, Finch & Tran, 2010; Carlin, Ji & Finch, 2010). In one of their early studies in 2006, they found that there was substantial room for companies to improve in relation to the required disclosures of discount rate, sensitivity analysis and terminal value growth rate as these were frequently omitted (Carlin et al., 2007).

They further tested a bigger sample of 200 of Australia's largest firms, selected on the basis of market capitalization, but still in the early adoption year of 2006. They found similar issue with the early study. There was a high non-compliance rate with the basic disclosure requirement of discount rate. Most firms used an inappropriate single explicit discount rate. Some companies used an aggressively low discount rate. Over 70% of firms failed to make any disclosure in relation to assumed growth rates. Some firms dominantly selected a single explicit cash flow forecast horizon (Carlin & Finch, 2008 a). One questionable issue of their work is that they have developed quality taxonomy for compliance and disclosure of discount rate, growth rate and cash flow forecast period. This quality taxonomy includes four categories of multiple explicit discount rates, single explicit discount rates, range of discount rates and no effective disclosure. This taxonomy has not been clearly defined in the accounting standards and not been commonly accepted in practice by financial statement preparers and users.

In another study, they compared the variation between discount rates used by firms and their independently generated estimates of firm specific risk adjusted discount rates. They explained that the wide variances between expected and observed discount rates cannot be explained by the product of estimation error, thus these variances seem to be systemic bias based on opportunistic behavior (Carlin & Finch, 2010 d). The argument of this study is the independently generated discount rate. A few researchers have questioned the appropriateness of this independently generated discount rate. For example, Gallery (2009) questioned the use of the capital asset pricing model (CAPM) and the unlevered company Beta, a risk premium of 6% and a risk-free rate of 5.885% (measured in December 2006) as inputs into the model. Gallery (2009) also criticised the method used by Carlin & Finch to convert the post-tax discount rate to the pre-tax rate, which is to divide post-tax discount rate by one minus the prevailing corporate tax rate.

Although Carlin & Finch assumed that this method was a generally accepted and orthodox approach, IAS36 clearly states that this approach only leads to consistency on a before and after-tax basis when cash flows are in perpetuity and there is no growth in these cash flows, Gallery (2009). Similar with Gallery (2009), PWC (2009b) also claims that converting post-tax rate to pre-tax rate is not simply grossing up the post tax discount rate with the standard rate of tax. He argues that firms should consider the timing of the future cash flows, the useful life of the CGU, and the expected tax cash outflows in deriving the discount rate. Davis (2010) points out that there is no unique formula available for generating the appropriate pre-tax discount rate for a given post-tax discount rate. Lonergan (2009 b) summarises that there is no practical reliable method to calculate a pre tax discount rate.

Carlin, Ji and Finch (2010) reveal that Australia firms trend to aggregate CGUs at a higher level potentially to avoid goodwill impairment. This finding is consistent with other researchers' findings that also show certain level non-compliance with the requirements of defining CGUs. They show that number of CGUs was less than number of reported operating segments and there was no effective disclosure of defining CGUs (Bepari et al., 2011; Carlin & Finch, 2010 c; Petersen & Plenborg, 2010). Carlin & Finch (2010 c) conclude the reason for this non-compliance could be managers using incentives, but they fail to provide supporting evidence for this conclusion.

Carlin & Finch (2010 c) found that New Zealand firms apply conservative basic model input assumptions, and also comply more strictly with the requirements of IAS36, compared with Australia firms. They point out this may be due to NZ firms' voluntary adoption from 2005 to 2007, while AUS firms report pursuant to IFRS on a mandatory basis (Carlin & Finch, 2010 c). As mentioned before, the limitations of Carlin & Finch' study are that they only covered the first year of adopting NZ IFRS in 2007 and issues with practices under current goodwill impairment regime. This study will provide a wider range of findings from various issues and look at a longer period. This study will follow up their findings and address the suspicions raised by them.

### ***Compliance Issues from Other Researchers' Studies***

A recent study from Petersen and Plenborg (2010) found some similar compliance issues with Danish firms. For example, a common practice has not yet been established, some firms do not define CGUs, discount rate, growth rate, firms experience difficulties in risk adjusting cash flows and discount rates. The estimation of the free cash flow in the terminal period is another area of concern from Petersen and Plenborg (2010).

The most recent study related to compliance issues is based on Australia firms done by Bepari et al (2011). Their findings suggest that after four years of implementation of IFRSs, a large percentage of Australia firms have non-compliance issues. These are in the areas of identifying of CGUs, cash flow forecast periods, applying CGU specific discount rates and disclosure of CGU specific growth rates (Bepari et al., 2011). Their findings show an improved trend in compliance with IFRSs from financial crisis period of 2008 and 2009 to pre-crisis period of 2006 and 2007. They further explain the reason for this improvement by the economic disturbance theory in 2008 - 2009 rather than the managers' opportunistic discretions in 2006 - 2007 (Bepari et al., 2011). Lastly, they found the associations between the compliance levels and firm specific factors including industry identification, goodwill intensity, audit quality and firms' profitability (Bepari et al., 2011).

Overall, “the application of ideal research standards is an almost impossible goal in much of corporate research because it is simply not possible to obtain access to the corporate valuation models that underlie the impairment testing process”(Lonergan, 2009 a).

## **2.6.9 Value Relevance of Goodwill Accounting Information**

This section reviews the value relevance studies of goodwill accounting information with the market valuation of equity. Beaver (2002) proposes a way to deduce the value relevance of an accounting number or information, which is a significant association between a stock-price-based variable and this accounting number or information.

### **2.6.9.1 Previous Goodwill Value Relevance Studies**

The reliability and relevance of goodwill accounting information on the balance sheet and the income statement are important for financial statements users. All the studies discussed above indirectly test the value relevance of goodwill accounting information. On the other hand, some previous studies directly test the impact of the goodwill balance and goodwill impairment, reported in financial statements, on market valuation of firm equity and the information content for investors (Chambers, 2006; Chen, Kohlbeck, & Warfield, 2004; Guler, 2007; Li & Meeks, 2006; Li & Sloan, 2011). The findings from these value-relevance studies are mixed. Some studies show evidence to support the intention of standard setter that is the reported goodwill and goodwill impairment represent the economic value of goodwill. The evidence includes: (1) there is a positive association between market value of common equity and goodwill impairment in both the adoption year in 2001 and one year after, but greater explanatory power of impairment on market value in the adoption year (Chen et al., 2004), (2) goodwill write-offs are more strongly associated with stock returns and stock prices after SFAS142 than before SFAS 142(Ahmed & Guler, 2007), (3) increased market valuation of equity under annual impairment testing system for large firms experiencing financial difficulties, and decreased value relevance for smaller and more profitable firms(Chambers, 2006), (4) the market valuation of book assets and of earnings closely

related with goodwill balance and goodwill impairment in the year of purchase, with this value relevance decaying in the subsequent years (Li & Meeks, 2006).

In contrast to above findings, Li and Sloan (2011) found that the announcements of delayed goodwill impairments cause little market reaction and investors are not able to fully predict the changes of goodwill value. This was inconsistent with standard setters' expectation and the impairment announcements conveyed little new information. Furthermore, Bens, et al (2011) found an average negative association between stock market reaction and goodwill impairments. This finding showed the consistency with the critics of SFAS142 that stated goodwill impairment testing process only represents the value relevance in fair value methods, and they do not prove the information is reliable. Lastly, Bugeja and Gallery (2006) found that there was no significant association between value relevance of purchased goodwill and market participants' perception two years after the business combination.

#### **2.6.9.2 Criticism of Goodwill Value Relevance Studies**

It is a feasible method to test the value relevance of an accounting number or information, however, this method has to rely on several assumptions. Firstly, market efficiency is a determining factor for value relevance of accounting information. Under an efficient market environment, accounting information is value relevant if it has the predicted significant impact on share prices and the influence of information users' decision making (Barth, Beaver, & Landsman, 2001). Beaver (2002) indicates that some early studies have found capital market may not be efficient for investors to rely on stock prices with respect to at least three areas: post-earnings announcement drift, market-to-book ratios and its refinements, and contextual accounting issues. Secondly, as Beave (2002) acknowledges that the conceptual foundation of value relevance studies is based on valuation theory and the incorporation of conceptual accounting arguments. In the case of goodwill accounting information, the accounting arguments are in diversities as discussed above. Consequently, the results of value relevance of goodwill and goodwill impairment could be in contrary. For example, positive association between core goodwill components and investors' valuation (Henning, 1994) versus no value relevance of goodwill older than two years (Bugeja & Gallery, 2006). All these contradict results from previous studies could cause a dilemma for investors. Lastly, the

market reaction to goodwill write-offs appears to be related to some firm characteristics. For example, firm size, Bens et al (2011) found that the limited resources within small firms increased the measurement error of goodwill write-offs and the market reaction tended to be less significant for small firms.

This study is to examine the value relevance of goodwill accounting information from a different angle. This study explores those issues raised from initial acquisition stage to current implementation of goodwill impairment testing regime. This will ensure the reported goodwill amount in the balance sheets is not to be distorted, and the goodwill impairment loss in the income statements is not to be manipulated, therefore, the reliability and relevance of goodwill accounting information will be preserved.

## **2.7 Conclusion of Literature Review**

All the studies summarised above have highlighted the importance of reliable and relevance in relation to goodwill accounting information and also provides evidence of whether or not goodwill accounting information revealed by companies are reliable and relevant. Most of these debates are still the focus of current researchers due to the comprehensive testing procedures and the controversial findings. These studies brought to the forefront issues including; the components of recognised goodwill, the indicators and managers' incentives in determining the timing of goodwill impairment, the value relevance of goodwill impairment in terms of market reaction, and the compliance with current goodwill impairment requirements. The controversial findings from those studies may be caused by few issues related with goodwill reporting and short periods before or after transition from amortisation to impairment examined. This study sets a goal as to investigate as many goodwill accounting issues as discovered from companies' annual reports and cover a reasonable long period from previous goodwill amortisation to current impairment period. This goal can be achieved by a constructivist/interpretive qualitative methodology, especially a combination of data driven and prior research driven thematic analysis method through analysing information from annual reports. If companies have properly recognised goodwill purchased in business acquisitions and subsequent movements of goodwill through years, and timely written off goodwill according to goodwill impairment testing

procedures, current goodwill impairment regime can be regarded as an improved accounting treatment for goodwill. Nevertheless, issues of testing impairment indicators, managers' incentives and the value relevance in terms of market reaction are outside the scope of this study due to data unavailability from annual reports. The data source in this study is companies' annual reports, which do not contain sufficient stock market information except for limited disclosure of companies' stock price at each financial year-end and numbers of stock exchanged during the year. As far as indicators and management incentives, a wide range of information needs to be obtained from various data sources including primary information from companies' personnel data. As mentioned in introduction chapter, this study covers issues of indicators and managers incentives when examining the quality of compliance with goodwill impairment testing process. In the later section of findings and discussion, except for value relevance of goodwill impairment on market reaction, all the issues discussed in literature review section will be further addressed.

## **Chapter 3      Methodology and Theorisation**

### **3.1 Methodology**

The objective of this study is to explore the extent of the reliability and relevance of goodwill accounting information by thoroughly investigating current practices of goodwill reporting and the goodwill impairment calculation process used by New Zealand firms. As discussed in Chapter 1, there is a research gap concerning the reliability and relevance of goodwill reporting and the goodwill impairment process based on compliance level. A good research design enables the researcher to properly collect and analyse data in order to address the research question and fill the research gap. A paradigm, as a set of basic beliefs (Guba and Lincoln, 1994, P 107) and a theoretical framework (Mackenzie and Knipe, 2006), influences the design of a research. Guba & Lincoln (1994, P 107) suggest that the research paradigm is based on ontology, epistemology and methodology assumptions. Whereas, Mackenzie & Knipe (2006) hold that the research paradigm and the research question should determine which research data collection and analysis methods are the most appropriate for a study. This view is consistent with Grix's (2002) statement that, the specific ontological and epistemological assumptions determine a researcher's methodological approach. This study follows the latter argument. Due to the complex exploratory and interpretative nature of this study, a relative ontological position and an interpretive epistemological view are appropriate. Hence, this study fits the constructivist/interpretive paradigm defined by Guba & Lincoln (1994, p 109). According to Mackenzie and Knipe (2006), a qualitative methodology and a document-reviewing data collection tool is appropriate for studies like this one as it has a constructivist/interpretative paradigm and an exploratory research question. Although a quantitative approach is used in analysing the numbers extracted from annual reports, such as, goodwill intensity, goodwill components and goodwill movements, these quantitative calculations are solely for supporting the interpretive analysis of goodwill reporting and goodwill impairment testing. The use of quantitative method is not designed to set these calculations as constructs and then test the relationships between these constructs and the practices of goodwill reporting and goodwill impairment testing. Specifically, thematic analysis, as



the fundamental qualitative approach, is used to effectively analyse qualitative data and address the research question. The main advantage of a qualitative methodology is that it provides deep analysis of the observed meanings, perceptions situations, interactions and environments. The findings of such studies therefore usually generate many ideas, concepts, and a much better understanding of the processes or sequence of events (Bryman & Bell, 2007). Boyatzis (1998) defines thematic analysis as “a method for identifying, analyzing and reporting patterns (themes) across qualitative data. Braun and Clarke (2006) identify a range of advantages of this method, such as, flexible to be used, relatively easy and quick method to learn, suitable for summarising a large body of data, offering a “thick description” of the data set, highlighting similarities and differences across the data set, and generating unanticipated insights. Considering these advantages, a thematic analysis can best serve the purpose of this study, as to find the patterns/themes of goodwill reporting and goodwill impairment calculation process by investigating the consistencies and/or differences between prior researchers’ debates and current practices in a New Zealand context. Compared with other qualitative method, like case study, grounded theory, narrative analysis, ethnography and phenomenology, a thematic analysis can be seen as a very poorly “branded” method, as researchers do not name it as a specific approach. Researchers treat it as a basic tool to be used by other methods (Braun & Clarke, 2006). Nevertheless, thematic analysis has been widely applied by researchers because it provides a rich and detailed, yet complex, account of data. The thematic analysis is often claimed as some other methods (e.g. content analysis or grounded theory), or it is not recognised as itself at all (Braun & Clarke, 2006).

Most existing literatures investigate a single issue related with goodwill reporting or goodwill impairment testing by employing a quantitative methodology. These might be, a prediction model in research of economic and acquisition indicators as determinants of impairment testing, a prediction and probit or tobit model in research of managers’ incentives as determinants of impairment testing, and an Ohlson-based valuation model in researches of value relevance of goodwill impairment reported. To the best knowledge of the researcher, large amount of the prior literature that investigated goodwill impairment compliance issues has applied the qualitative methodology. Some of them did not indicate the specific approach of qualitative methodology. For example, Carlin & Finch’s (2010 c) research does not specify which qualitative methodology has

been used. Petersen and Plenborg (2010) use a survey-based analysis for their study, which examines how Danish firms apply IAS36 in practice. They argue that feedback from detailed questions in the survey allow them to find, factors that explain why some firms seem to comply more correctly with IAS36 than other firms are. Petersen and Plenborg (2010) only draw a conclusion of a common practice not yet established. They cannot explain whether the non-compliance is caused by the firms' approaches endemic to their organizational and economic structures, or by the uncertainties faced by the firms as to how to apply the standards. Comiskey and Mulford's (2010) study is also based on a compliance level. They identify that their study design has an exploratory nature, with a combined method of data collection, data analysis, and data interpretation.

Overall, the nature of this study is to describe and interpret the complex features of New Zealand stock listed companies' goodwill reporting and goodwill impairment testing by analysing a large data set in the forms of text abstracts and numbers from their annual reports. A qualitative methodology and thematic data analysis method is the most appropriate for this study.

### **3.2 Sampling Process**

Population of this research is located to all the listed companies on NZSX and NZAX during the period of July to September 2011. This is to include those temporally delisted companies and new listed companies. Data source is the companies' annual reports from the end of financial year of 2000 to 2010. These annual reports are downloaded from NZX Deep Archive database, Mergent database and companies' websites. As New Zealand companies have an option of voluntary early adoption of NZ IFRSs from 01 January 2005 with mandatory adoption from 01 January 2007, it is reasonable to include five years before voluntary adoption and five years after the adoption in order to compare the themes and patterns over a long period.

A purposeful sampling, as one type of non-probability sampling method, is used in this study. This method selects a small group of targets with specific and rich information to yield a deep understanding of qualitative research (Patton, 2002, p. 230). In the process

of applying this sampling method, the first step is to identify all the companies listed on NZSX and NZAX and download their annual reports in 2000 and 2010. This includes a total of 140 firms and 280 annual reports. After this step, companies with goodwill on their balance sheets (or as an item of intangible assets in notes in earlier years) in both 2000 and 2010 year-end are identified. Conversely, the companies without goodwill as an asset in both years are excluded. The same excluding rule applies to the companies without annual reports in either 2000 year-end or 2010 year-end and the companies without goodwill in either year. Some companies may have annual reports in 2001 financial year-end and these annual reports contain comparative numbers and major disclosure in notes of 2000 financial years, thus these companies are included in the sample. The annual reports of overseas issuers on NZX are governed by the financial reporting standards required by the countries where these issuers' group companies are registered. Although the requirements of goodwill and goodwill impairment reporting under different countries' standards are similar, this study applies detailed sections of NZ IFRSs extensively, for this reason this study only examines New Zealand based companies, and seven overseas issuers on NZX are excluded. Finally, 30 companies with goodwill in both 2000 and 2010 year-end are included in the sample. A total of 330 annual reports are to be used for the purpose of data collection. Ideally, all these 30 companies should be analysed to gain a comprehensive data assessment to cover various compliance and disclosure level from extremely poor to extraordinary high. However, this research is a six-month master dissertation, so the time- frame is a considerable constraint for an in-depth examination of 30 companies and 330 annual reports. The purpose of this study is neither to generalize the findings to all the New Zealand stock listed companies, nor to compare findings from a New Zealand context with those ones from other countries. It is reasonable to select typical companies which contain maximum amount of goodwill and goodwill impairment information in their annual reports and then the information can illustrate or highlight typical, normal, and average trends (Patton, 2002, p. 236). This is the rational for employing a typical case purposeful sampling method in this study. After using this sampling method, 11 companies with less information related to business acquisition, impairment before and/or after adoption and annual impairment testing are excluded. Although the fact of insufficient information provided by these 11 companies' annual reports is part of finding, which may show evidence of non-compliance with goodwill impairment testing and disclosure requirements, this study is not aimed to investigate the reasons of these non-compliance practices and the insufficient goodwill and goodwill impairment

reporting information by these companies cannot be used to illustrate or highlight any trends or themes for this study. A further four companies are eliminated, as they have similar amount of desired information but their turnovers in 2010 financial year end are not among the top one or two companies in the same industries. The sample selection details are in Appendix A.

Having pointed above, the aim of this study is not to generalize the findings to any other New Zealand companies excluded by this study. This is consistent with the statement from Hyde (2000) that, the goal of a qualitative research is to expand and apply theories, not to establish the frequency of a phenomenon and then to generalise it in a population. Due to the time constraint, this study only selects 15 companies instead of the originally proposed 30 companies and then applies the standard requirements and the findings from prior literature to the practices used by these companies. The final sample of this study may not represent the whole population, but data representativeness of these 15 companies is strong to represent the proposed sample of 30 companies.

### **3.3 Data Collection and Analysis**

This study applies document-review (annual report) data collection and thematic data analysis method. An annual report is considered as the first choice of secondary financial data source, and they have both advantages and disadvantages (Blumberg, 2008, p. 317). The first advantage is that they are the main communication tools between corporate and their stakeholders, especially investors (Blumberg, 2008). The second advantage is that annual reports have high quality and credibility (Blumberg, 2008; Neu, Warsame, & Pedwell, 1998) and similarity of presentation for easy comparisons (Gray, Kouhy, & Lavers, 1995). According to Blumberg (2008, p. 319), the disadvantage of using annual reports is that secondary data has usually been produced purposely, and often does not cover sufficient and detailed information for a specific researcher. In the case of this study, detailed information of managers' cash flow forecast is not accessible in annual reports. However, the discrepancies caused by these disadvantages are not material as the researcher aims to analyse companies' overall compliance performance, instead of one or two specific areas.

After collecting data from the companies' annual reports, a thematic data analysis method is employed. A theme is a minimum unit of pattern found in the data set that can describe and organise the possible observations and interpret the aspects of a phenomenon at a maximum level (Boyatzis, 1998, p. 4). According to (Boyatzis, 1998, p. 29), there are three ways to develop themes in a thematic analysis: inductive or data driven, deductive or theory driven, and prior data or prior research driven. This research aims to provide a rich description and detailed analysis of the data from a New Zealand perspective. It neither attempts to code data into the theories established by other researchers nor the researcher's own analytical preconception. It compares themes emerged from own data set with those same or similar thematic codes from previous studies and also adds some new themes which have not been discovered by previous studies, such as, text disclosure of benefit of synergy goodwill and going concern goodwill as core goodwill components, various goodwill movements and adjustment through years. Therefore, the combination of data driven and prior research driven method is appropriate for this study. When the new codes and themes emerge this study seeks to compare these codes and themes with the requirements of standards in order to interpret them. In the situations where existing codes are not available, this study regards them limitations of this study. The steps of a thematic analysis summarized by previous researchers are similar, for example, reading, selecting and reducing data, allocating text extract into relevant initial codes; sorting and collating initial codes into potential themes; reviewing, refining and naming themes; summarizing patterns/themes (Attride-Stirling, 2001; Boyatzis, 1998, p. 44; Braun & Clarke, 2006). The challenges in these steps are identifying codes and themes, and transferring codes into themes (Boyatzis, 1998, p. 63). Although some general guidance in analysing themes can be followed, these techniques can only be best obtained in each individual case. According to (Boyatzis, 1998, p. 63), a code is, "the most basic segment, or element, of the raw data or information that can be assessed in a meaningful way regarding the phenomenon". Braun and Clarke (2006) have proposed some key advices for a qualitative researcher. They recommend to code for as many potential themes or patterns as possible as time permits. They suggest that more instances of the theme across the data set do not necessarily display evidence of the theme being considered or the theme being more crucial, however, data from one or two sentences could suggest a theme if it represents something relevant to the research question (Braun & Clarke, 2006).

As mentioned above, the thematic analysis method can identify and interpret the themes of current practices of goodwill reporting and goodwill impairment measurement in a New Zealand context. The interpretation and implication of these themes can provide a meaningful understanding of the reliability and relevance of the goodwill and goodwill impairment accounting information. This study employs Braun and Clarke's six steps thematic analysis approach. Step 1 is to familiarise oneself with the data. For this study, this includes reading 165 annual reports, searching the word "goodwill" and "goodwill impairment", printing useful pages, highlighting all relevant texts and numbers and taking notes. Step 2 is to generate initial codes. Data from the balance sheets, income statements, notes and other sections is collected and analysed simultaneously. Relevant data is filtered, and sorted into initial codes. These codes include: intensity of goodwill in term of percentage of goodwill to total assets, components of goodwill recognised, movements and adjustments of goodwill through years, period of systematic amortisation, goodwill write-off above normal systematic amortisation, goodwill write-off during transition period, indicators in testing goodwill impairment, compliance issues in goodwill impairment testing including number of cash-generating units, cash flow forecast period, discount rate, growth rate, and disclosure issues. Step 3, 4 and 5 involve searching, reviewing, defining and naming themes. Themes are generated by analysing and grouping initial codes and notes taken in step 1 and 2. During the process of emerging and explaining themes, it is important to frequently compare themes with prior literatures, which provide guidance towards the emergence of themes and begins to answer the research question. Meanwhile, emerging themes should not be limited to this literature, but the applied data driven thematic analysis predicts that more themes will emerge from this research. The analysing and comparing process continues until no new themes and codes arise. The last step is to produce the report of the themes and the interpretation of these themes. Now well-identified themes are ready to be explored for the relationships between and among various themes or varieties of sample in each theme. Implication and trends from these themes are to be reported. Examples of potential themes from this study could include: goodwill intensity of most sampled NZ companies is high compared with previous findings, the components, movements and adjustments that may not share an indefinite useful life are included in the initially booked goodwill, conservative accounting practices in terms of short amortisation period and a number of additional goodwill write-offs above systematic amortisation, only GW% seems to have apparent relationship with the subsequent goodwill impairment, subsidiary level performance indicators are closely related with

the immediate write-offs after the acquisitions, timely write-offs of overpaid price for goodwill have been practised when management realises the deterioration of the subsidiaries' performance, compliance with the requirement of selection of key estimates used in value in use method is in an acceptable level.

### **3.4 Data Valuation**

Patton (2002, p. 546) has proposed several criteria to value data quality of a qualitative research in respects of credibility (internal validity), transferability (external validity), dependability (reliability), and confirmability (objectivity). Credibility of this study is achieved because data is collected from information-rich annual reports and annual reports are appropriated represented and audited; the researcher has an independent view of collecting and interpreting data. Due the sizes of New Zealand firms and constraints of time period, this study might assist other researcher's studies if they assess the possibility to transfer. Dependability is warranted as the researcher collects stores and analyses data consistently over time. Confirmability is ensured by transparent and unbiased description and interpretation of data by the researcher.

### **3.5 Conclusion**

This chapter discusses the specific research methodology, sample processing and data collection and analysis method and why these methods are appropriate to address the research questions of this study. This study fits a constructivist/interpretive paradigm, and applies purposeful sampling method and a thematic analysis approach. A broad range of data from annual reports can be thoroughly interpreted and presented by these methodology and methods, therefore, the themes emerged from the data show the reliability and relevance of goodwill accounting information from the initial recognised goodwill components, movements, adjustments to goodwill write-offs under previous amortisation method, transition period and current impairment regime. Chapter four discusses the findings from sampled 15 NZ companies' annual reports in terms of five main themes.

## **Chapter 4 Findings and Discussion**

### **4.1 Introduction**

Using the six-step thematic data analysis method introduced by Braun and Clarke (2006), this chapter discusses the accounting practices of New Zealand companies in relation to goodwill and goodwill impairment. These steps are initial taking notes, recording and grouping codes, defining and reviewing themes, and finally reporting indication of themes. The discussion in this section focuses on the impact that these practices have on the reliability and relevance of the financial statements. Using the above approach, the data collected from the 15 New Zealand companies included in this study reveal five primary themes. These include (1) the impact of goodwill intensity, components and movement in goodwill, (2) practices under the previous systematic amortisation regime, (3) practices over the transition period, (4) timing of goodwill impairment, and (5) compliance and practices of the goodwill impairment testing and calculation process. Similarities and differences between the findings of the present study and previous literature are discussed together with the implication that these findings have on the profession and the regulatory framework.

### **4.2 Theme One: Impact of Intensity, Components and Movements of Goodwill**

#### **4.2.1 Introduction**

The first of the themes discussed in this chapter is that of goodwill intensity, the components of goodwill and movements in the value of goodwill after its initial recognition.



It has been questioned whether goodwill, as an unidentifiable asset acquired from business combination, can represent synergy for combined entities and how long this synergy can be sustained (Bugeja & Gallery, 2006). The substantial amounts of goodwill on the balance sheet have caused concern regarding the underlying financial position of those companies. The amount of goodwill calculated from an acquisition unavoidably contains some components not allowed by the standards. The non-precise and allusive nature of the definition for goodwill potentially opens the door for companies to introduce components of goodwill that stretch the original intention of the concept and complicate the impairment testing process. As a result, the goodwill balance is very likely to be distorted, and this distorted goodwill balance (usually aggregated) indicates the potential impairment to be tested and calculated. Because of the significance of the goodwill balance, the potential impairment will have a significant impact on companies' reported earnings.

#### **4.2.2 Goodwill Intensity (as Percentage of Goodwill over Total Assets)**

Goodwill intensity refers to the percentage of goodwill to total assets. The relevance of this ratio is that it provides an indication of the reliability of the financial statements. Goodwill is a vague concept, with the definition of a non-identifiable intangible asset in the standard, compromises the reliability of the financial statements. Some categories of intangible assets, e.g. brand names, computer software, licenses, patents, franchises are identifiable. Other types of intangible assets, including customer or supplier relationships, customer loyalty, and market share, are considered as not identifiable and controllable by an entity in the absence of legal rights to protect them. If these types of intangible are acquired in a business combination, then they form parts of the goodwill recognised (NZICA, 2011c, pp. 16,17,40). The inclusion of goodwill in the balance sheet appears to be a reluctant acceptance of the difference between fair value and the consideration paid during a business acquisition. The exclusion of internally generated goodwill is a reflection of the motivation to keep the financial statements objective. Goodwill intensity provides an indication of the proportion of assets that fall into this vague category of assets that cannot be identified specifically and individually.

Goodwill amount on balance sheet can be represented in two ways including percentage over total assets or reported earnings and absolute dollar value. This study uses goodwill percentage over total assets (goodwill intensity) to assess the materiality of goodwill amount on the balance sheet. The reasons for using this measurement are from two researchers' arguments. Firstly, goodwill intensity is often used by practitioners to value the materiality of goodwill in relation to a company's financial position (Bradbury, 2010). Secondly, the significance of goodwill intensity can reflect managers' attention to the impairment testing process (Petersen & Plenborg, 2010). The goodwill balance in 2010 is accumulated from previous years, so only goodwill intensity at 2010 financial year-end is used in this study.

As revealed by prior literature, over the last two decades companies continuously carry significant amounts of goodwill (Carlin & Finch, 2010 b; Gore & Zimmerman, 2010; Henning, 1994; Petersen & Plenborg, 2010; Ramanna & Watts, 2010). Duff & Phelps' (2011) study shows the goodwill impairment information based on over 5000 US firms in each year from 2006 to 2010. This study shows that average goodwill intensity has been significant (ranged from 12.3% in 2006 to 12.7% in 2010). A wide range of goodwill intensity across the industries and the constant high goodwill intensities is in the Healthcare, Consumer Staples, Telecommunication and IT industries. Peterson & Plorberg (2010) found that average goodwill intensity of 62 surveyed Danish firms was 6% and there was one extreme case of 30% goodwill intensity (unreported). They suggest that this modest average goodwill intensity may be the reason that some firms have not placed much value on their impairment tests due to less impact on earnings. Bepari et al (2011) found that goodwill intensity in itself is not a significant motivation in determining firms' compliance with IFRSs for goodwill impairment testing.

Based on the most recent available financial information of 2010, goodwill intensity for the sampled New Zealand companies widely ranged from 1.54% (Telecom) to 74.56% (Sky TV). The absolute amount of goodwill balance varied from \$0.96 million (Velo) to \$1423.43 million (Sky TV). Contact energy, Telecom and Tower have goodwill intensity less than 5% while, Nuplex, Sky City and Velo's goodwill intensity is in a range of 5% to 10%. The remaining nine companies included in this study all had goodwill intensities greater than 10%. Industries with high goodwill intensity include radio and television broadcasting, diagnostic & health related services, airlines/air

freight and retail apparel and accessories. Industries with low goodwill intensity include telecommunication, insurance and utilities. The IT industry has a middle level of goodwill intensity ranging from 6.93% to 17.72% (refer table 1 below).

Table 1: Goodwill Intensity (as percentage of goodwill over total assets)

<b>Goodwill Intensity</b>				
<b>Company Names</b>	<b>Industries &amp; Services</b>	<b>Goodwill balance at 2010 year-end</b>	<b>Total asset at 2010 year-end</b>	<b>Goodwill intensity at 2010 year-end</b>
Abano	Diagnostic & Health Related Services	79.87	161.91	49.33%
Contact	Electric Utilities	181.94	5,147.76	3.53%
Fletcher Building	Construction Services	820.00	5,714.00	14.35%
Freightways	Airlines/Air Freight	131.85	382.51	34.47%
Hellaby Holdings	Retail - Apparel and Accessories	54.52	229.28	23.78%
Mainfreight	Airlines/Air Freight	123.01	565.38	21.76%
Nuplex	Plastics Materials and Resins	97.05	1,004.29	9.66%
Renaissance	Computer Hardware & Equipment, peripherals & software	7.98	45.05	17.72%
Restaurant Brand	Hotels, Restaurants & Travel	17.79	102.97	17.28%
Sky Television	Radio & Television Broadcasting Stations	1,423.43	1,909.16	74.56%
SKYCity	Casino, Hotels, Restaurants & Travel	151.95	1,636.24	9.29%
Smartpay	IT Services	5.35	31.84	16.80%
Telecom Corporation of New Zealand Limited	Telephone Communications	106.00	6,865.00	1.54%
Tower Limited	Life & Health insurance	30.81	1,617.64	1.90%
Velo Capital Limited (former Media Technology)	Computer Systems Design Services	0.96	2.27	6.93%
<b>Total</b>		<b>3,232.51</b>	<b>25,415.30</b>	<b>12.72%</b>
<b>Note: Industries &amp; Services information sourced from Mergent database</b>				

Previous studies indicate that goodwill intensity has been high with a range from 6% to 25.6% in their samples (Carlin & Finch, 2010 b; Gore & Zimmerman, 2010; Henning, 1994; Petersen & Plenborg, 2010; Ramanna & Watts, 2010). This number has also been found to be high for sampled New Zealand companies. 12 over 15 sampled Many of the sampled New Zealand firms have high goodwill intensity over 5%. Average goodwill intensity in 2010 for 15 samples is 12.72%. This result is equivalent to Duff & Phelph's (2011) result from the US samples. Some extreme cases including Sky TV, Abano, Freightways, Hellaby Holding and Mainfreight have dramatically high goodwill intensities. These findings require financial statement users' extra attention when assessing companies' financial positions and future earnings.

The range of intensities appears to be consistent with those found in overseas studies. Companies in the IT industry only show a moderate level of goodwill intensity compared with those overseas (Duff & Phelps, 2011). The retail, health, air freight and

broadcasting industries in New Zealand all appear to have significant levels of goodwill intensity. High goodwill intensity for Sky TV was caused by two acquisitions in 2005 and 2006 when they purchased a total of \$1422 million goodwill and no subsequent goodwill impairment after the acquisitions. The reason for high goodwill intensity for Abano, Freightways and Mainfreight was the frequent acquisitions without subsequent impairment. In response to previous finding of goodwill intensity reflecting industry merger and acquisition activities, this study shows similar results of high goodwill intensity in healthcare and consumer services industries, however, this study does not indicate high goodwill intensity in IT and telecommunication industries.

Many of the representative companies in these industries including Freightways and Abano have gone through periods of significant financial challenge and restructure. The broadcasting industry has also gone through a period of significant changes with advances in digital technology and the internet. The high levels of goodwill intensity suggest high expectations for future growth. However they also foreshadow periods of intense change and volatility which are in turn associated with a high investment risk.

When interpreting these findings, caution needs to be taken for two reasons. One reason is the small sample size does not represent the industries in which samples belong to; another reason is that low goodwill intensity does not necessarily mean less merger and acquisition activities, because subsequent goodwill impairment can compensate the result of extensive merger and acquisition. Overall, high average goodwill intensity in sampled New Zealand companies suggests a careful interpretation of companies' financial positions and future earnings.

### **4.2.3 Components of Goodwill**

#### **4.2.3.1 The Vagueness of Goodwill Component Disclosure Requirements**

The disclosure of goodwill and other related information as to how it is calculated varies significantly between companies. This is partly due to the vagueness of the requirements of current accounting standards. Both IFRS3 B64 and NZ IFRS3 B64

require that companies involved in an acquisition, will need to disclose information relating to that acquisition. However, in relation to goodwill the standard only requires that ‘a qualitative description of the factors that make up the goodwill’ be included. This allows reporting a great deal of flexibility as to what they may deem as a relevant factor and does not require a breakdown of the impact that these factors may have on the goodwill recognised. Furthermore, the standard only requires this disclosure for non-qualifying companies under the differential reporting framework (IASB, 2008, p. 30; NZICA, 2011a, p. 53).

From 2000 to 2010, the sampled 15 companies were involved in a total of 104 acquisitions or business combinations. In 11 of these 104 cases, no acquisition information was included in the annual reports. The specific amounts of the goodwill, the date and the name of the acquired company were not disclosed. In 18 cases, the amounts of goodwill acquired were disclosed, but no other information was included in the report. While the accounting standards do not mandate the disclosure of all information relating to goodwill, the inclusion of information that would otherwise clarify the company’s financial position, including the impact of goodwill, relies on companies’ voluntary disclosures. This situation leads to potential inconsistencies and non-comparability in the financial statements and therefore compromising the reliability and relevance of the accounting information.

The vague and non-specific disclosure requirements outlined in the accounting standards in New Zealand encourage a degree of passive non-compliance, inconsistency in reporting between companies and ambiguity in the financial information included in the statements.

#### **4.2.3.2 Components of Goodwill are not always by Default Indefinite**

The latest version of the International Accounting Standards (IFRS) does not permit the systematic amortization of capitalized goodwill. This is based on the understanding that capitalised goodwill does not have a finite useful life. Eldridge (2005) suggests that this is not the case and that there are components of capitalised goodwill that do not share an indefinite useful life. The inclusion of a variety of components in goodwill, particularly

if they do not share an indefinite useful life increases the likelihood of future impairment. This was suggested by the recent impairment practices of Fletcher Building. In their 2006 annual report, they write:

“..... despite lacking the synergy benefits available to trade buyers like Fletcher Building, pay prices well beyond those that accord with our own acquisition criteria. This has resulted in the company looking more seriously at options outside New Zealand and Australia, especially where we have the opportunity to negotiate exclusively” (Fletcher Building, 2006, p. 13)

This comment outlines that Fletcher Building in a number of acquisition has paid a higher price than they would have otherwise identified as synergy and going concern goodwill. Therefore, they have entered overseas markets where they believe negotiations are likely to be more exclusive. Fletcher Building has written off total of \$61million goodwill in 2009, so this is consistent with the statement in 2006 annual reports.

The practice from Fletcher Building supports the concern that some components in goodwill may not share an indefinite useful life; therefore, the inclusion of these components indicates the likelihood of future goodwill write-off.

#### **4.2.3.3 Components of Goodwill from Sampled Companies**

As discussed in Chapter 2 of literature review, there are six possible goodwill components identified by the standards. Component 1 is the difference between fair value and book value of net acquired assets. Component 2 is the fair value of other net assets not previously recognised. Component 3 is the going concern goodwill while component 4 is the synergy goodwill. Component 5 is the valuation errors and component 6 is the over or under payment by the acquirer. Although only synergy and going concern goodwill components are allowed to be included into initially recognised goodwill, risk of including other components is very high.

The extant literature outlines that the most common components of goodwill include synergy and going concern (Eldridge, 2005; Henning et al., 2000). According to

Henning et al (2000), going concern goodwill is the excess of pre-acquisition market price of acquired company over the fair value of net assets acquired. Synergy goodwill is calculate by the accumulative net increase in market value of both acquirer and acquired company during the acquisition period. A series of other factors that are directly and indirectly related, influence both these goodwill components. They potentially open the goodwill aggregate to include any number of variables deemed relevant. For some company acquisitions, market value is not available making the calculation of synergy and going concern goodwill more subjective. The specific calculation of synergy and going concern goodwill components are not included in this study because many acquired companies are not listed companies and their market value could not be obtained. This study looks at the component of goodwill from the aspect of whether the relevant text information is disclosed in annual reports. For going concern goodwill, this study fails to find any relevant text information in all of 15 sampled companies' annual reports. A few companies disclosed text information regarding the synergy benefit from business combination.

In the case of Mainfreight, their 2005 annual report outlined that the synergies or goodwill identified in their recent acquisition of Owens had taken longer than originally expected. They write:

“While we have been able to manage Owens over the past 18 months and achieve most of the restructure and synergies we had originally planned, the full ownership and delisting of Owens now allows us to complete our original objectives and to achieve the maximum synergies available” (Mainfreight, 2005, p. 9)

Despite this prolonged period of delay before the realization of the goodwill identified in the acquisition, no impairment or amortization was recognised in the accounts. An impairment test calculated in the first may have resulted in an impairment amount being recognised in the income statement. As this was not the case, it is possible that the company delayed this action expecting that it was merely a temporal delay in the synergy process.

In the case of Tower's acquisition of AWM, no impairment expense was recognised in the income statement although their comment below in the 2004 annual report would suggest that they should have. They write:

“The fact is that AWM, with its advice-based investment and administration services, is significantly different from the other TOWER businesses. We have found little synergy with TOWER Australia and, at a Group level, it makes increasingly little sense to have different businesses compete for capital resources” (Tower, 2004, p. 2)

Tower has adopted NZ IFRS from 01 October 2005, and it has not impaired any goodwill after its adoption of NZ IFRS. Instead, Tower recorded a decrease of goodwill termed as “AWM Spin-off” in 2005.

The disclosure in these two companies’ annual reports indicates that the effect of synergy goodwill and going concern goodwill is likely to be less than the expectation.

#### **4.2.3.4 Summary of Goodwill Components included by Sampled Companies**

To summarise, due to the unavailable market prices of acquired entities, this study is not able to replicate the calculation procedure of each goodwill component recognised at acquisition date. However, by assessing the text disclosure in the companies’ annual reports, this study found that the non-precise definition of goodwill and the vague disclosure requirements open the door for companies to include some goodwill components without indefinite useful lives into the acquired goodwill. This inclusion not only dilutes the effect of core goodwill components, but also increases the ambiguity in the subsequent goodwill impairment testing practices.

#### **4.2.4 Identifying Goodwill Movements**

Movements in goodwill may arise from a number of angles. The first is from the impairment testing process carried out each year after the initial capitalization following a business combination (NZ IAS36 and NZ IFRS3). The second is in relation to changes in provisional goodwill arising from an acquisition that is incomplete at the balance date (NZ IFRS3).



According to NZ IFRS3 paragraph B67 (d) (applied to non-qualifying companies only), the acquirer should disclose a reconciliation of the carrying amount of goodwill at the beginning and end of the reporting period showing separately, for each material business combination or in the aggregate for individually immaterial business combinations (NZICA, 2011a, p. 56). The reconciliation during the reporting period includes the following:

- (1) The gross amount and accumulated impairment losses at the beginning of the reporting period.
- (2) Additional goodwill recognised during the reporting period
- (3) Adjustments resulting from the subsequent recognition of deferred tax assets
- (4) Goodwill included in a disposal group classified as held for sale
- (5) Impairment losses recognised
- (6) Net exchange rate differences
- (7) Any other changes in the carrying amount
- (8) The gross amount and accumulated impairment losses at the end of the reporting period

(NZICA, 2011a, p. 56).

Furthermore, NZIFRS3 paragraph 45(NZICA, 2011a, p. 23)and NZ IAS36 paragraph 85(NZICA, 2011b, p. 31)outline that provisionally recognised goodwill may be adjusted within a one year period after the balance date, where additional information regarding a business combination arises. These movements in goodwill are required to be explained and given the limited period, within which they may occur, should be rare and infrequent.

This study found that the sampled companies have practiced extensive adjustments and movements of goodwill through the years. While some of these movements relate to goodwill impairment, other movements have also been included in such a way as to throw doubt to the reliability of the company's financial position.

For all of 15 sampled New Zealand companies, yearly goodwill movement starts from

carrying amount at the beginning of the financial year, plus/minus addition/acquisition, amortization/impairment, disposal, exchange rate movement and other adjustments to carrying amount at end of this year. This reconciliation practice is consistent with the standard requirements.

The changes and adjustments of goodwill reported by the 15 New Zealand companies in this study vary significantly in terms of amounts and categories. The most commonly recorded change or adjustment to goodwill is the exchange rate differences (recorded by 11 companies in most of years from 2000 to 2010). Besides exchange rate, nine companies recorded different items of changes and adjustments of goodwill (other than impairment and amortization for periods prior to 2005). Of these nine companies, seven only disclosed the amounts of these movements and failed to provide any further disclosure as to the rationale for how they came about and calculated (refer the following table 2).

Tower's negative \$151 million movements termed as AWM Spin-off in 2005 does not seem an adjustment in measurement period because Tower did not have any acquisition activities from 2001 to 2005. Alternatively, this decrease of goodwill may be linked to the previous text abstract in Tower's annual report regarding the negative impact of synergy from the combination of AWM in 2004. However, Tower's management may be challenged as to why this negative adjustment was not recorded as a write-off. In addition, a goodwill movement of \$182 million in 2003 is also questionable as it was generated under a business restructure instead of a business combination.

Except for the adjustment of exchange rate, the validity of the changes and adjustments of goodwill reported by the sampled New Zealand companies remains questionable. This predicament is due to the vagueness of standard requirements, and it is affected by the various categories of these adjustments and the insufficient disclosure provided by these companies. Various categories and considerable amount of goodwill movements require certain attention from financial statement users. These movements of goodwill may distort the goodwill balance and have an impact on potential goodwill impairment; consequently, the reliability and relevance of goodwill accounting information are biased.

Table 2: Examples of Movements of Goodwill

Changes & adjustments of goodwill				
Company Names	Names of movements	Total amounts of movements (in \$million)	Years of movements	Disclosure of movements (Y or N)
Abano	goodwill on investment now equity accounted for	-1.8	2001	N
Abano	transferred during the year	0.1	2004	N
Abano	fair value change in put option	10.8	2006 - 2010	N
Fletcher Building	restatement during the year	80	2006 - 2010	N
Freightwys	goodwill amortized on restructure	-0.44	2002	N
Freightwys	reversal of accrued earn-out payment	-0.57	2010	N
Mail freight	adjustment for previous year acquisition	-0.064	2002	N
Nuplex	previous years adjustment	0.44	2002	N
Sky City	fair value adjustment	-1.58	2002	N
SmartPay	deferred tax adjustment	0.59	2008	Y
Tower	deferred tax adjustment	0.4	2009	Y
Tower	other movements	-0.33	2001 - 2002	N
Tower	excess of directors' valuation over net tangible assets 1822003	182	2003	N
Tower	AWM Spin-off	-151	2005	Y
Tower	transferred to assets of disposal group classified as held for sale	-149	2006	Y
Velo	adjustment to goodwill with revision of purchase price	-0.079	2010	N

#### 4.2.5 Summary of Theme One

Overall, goodwill intensity of most sampled NZ companies is high in comparison with previous findings. The following factors have contribution to this high goodwill intensity. (1) Business combinations are extensive, but subsequent goodwill write-offs are less, (2) The standard requirements are vague and non-precise in the areas of goodwill definition and goodwill components, (3) Some goodwill components that may not share an indefinite useful life are included in the initially booked goodwill, (4) The adjustments and changes of goodwill have various categories and considerable amounts. If the high goodwill intensity has been distorted by these factors, not only the likelihood of future goodwill write-off is high, but also the reliability and relevance of these companies' financial positions and reported earnings are very likely to be compromised.

### 4.3 Theme Two: Practices under Previous Systematic Amortisation

#### 4.3.1 Introduction

This theme discusses the practices of amorisation periods selected by management, and write-offs above systematic amortization under previous amortisaiton regulation. Amorisation period reflect managers' original expectation of the economic value of acquired goodwill, while write-offs above systematic amortisation are subsequent adjustments to the expectation of the useful life of goodwill.

### **4.3.2 Amortisation Period**

Although goodwill amortisation is no longer permitted, the historical practice of many companies provides an insight into the attitudes and interpretation that some companies have towards goodwill. It also provides insights into the potential implementation of the impairment testing process given that it is the only vehicle remaining to adjust the amount of goodwill.

Previous literature has provided mixed argument of the appropriateness of maximum amortisation period of 20 years (under IFRS) or 40 years (under SFAS). Before the adoption of NZ IFRS, NZ GAAP required goodwill to be amortised in a maximum period of 20 years (Wong & Wong, 2005). Both Duvall et al (1992) and Henning (Henning, 1994) found of range of amortisation periods being used in practice. Over 40% of their sampled firms amortised goodwill over the maximum allowable period of 40 years and over 20% of firms amortised portion of their goodwill over 40 years. They also found evidence of a small percentage of firms practicing less than a 10-years amortisation period (Duvall et al., 1992; Henning, 1994).

Findings from sampled New Zealand companies show a wide range of amortisation periods in practice, which is consistent with previous findings (Table 3 below). 10 out of 15 sampled companies amortised all or at least portion of their goodwill over the maximum 20 years, which is consistent with the findings of Duvall et al (1992) and Henning (Henning, 1994) findings. Inconsistent with previous studies, this study found that only Abano's amortisation period is a single period of maximum 20 years. It seems that sampled New Zealand companies are more conservative compared with US companies in the practice of the goodwill amortisation period. This study also found a

small number of companies practicing short amortisation period of less than 10 years. Sky TV has the shortest amortisation period of no greater than five years, which indicated that the management is not confident with the economic benefit of acquired goodwill. As pointed out in the earlier section of theme one, Sky TV has the highest accumulated goodwill intensity in 2010 at the end of financial year. This may require a potential write off. The finding here further confirms this requirement.

Overall, findings of amortisation period practiced by sampled New Zealand companies support the vague and complex view based on theoretical arguments and empirical studies discussed in Chapter 2. It is difficult to test the period of economic benefit generated from goodwill due to the wide range of amortisation period. However, findings from this study at least suggest that goodwill may not have an indefinitely useful life because only one sampled company has chosen maximum 20 years. Furthermore, it is possible that companies who are not in favor of carrying a goodwill amount in their balance sheets will use the impairment process as a vehicle to systematically reduce it.

Table 3: Amortisation Period

<b>Amortization Period</b>	
<b>Company Names</b>	<b>Amortisation period (Years)</b>
Abano	20
Contact Energy	up to 20
Fletcher Building	5 - 20
Freightw ays	up to 20
Hellaby Holdings	10
Mainfreight	up to 10
Nuplex	up to 15
Renaissance	up to 10
Restaurant Brands	up to 20
Sky TV	the shorter of its estimated useful life and 5 years
Sky City	up to 20
Smartpay	up to 20
Telecom	up to 20
Tow er	3 - 20
Velo	10

### 4.3.3 Write Off of Goodwill Value above Systematic Amortisation

Additional write-off of goodwill above the fixed period amortisation was permitted

under NZ GAAP prior to 2005 and a record of any additional write-off was required to be disclosed (Wong & Wong, 2005). A write-off above the normal systematic amortization is considered as a flexible adjustment over the fixed amortisation period (Wang, 2011). Periodic impairment testing combined with systematic amortization, is claimed as the best goodwill accounting practice (Wang, 2011; Chambers, 2006). Henning (1994) shows an increased trend in the amounts of goodwill being amortised, and the frequency of these write-offs. While Henning's (1994) study did not find evidence of management using goodwill amortisation as a means for earnings management, it suggests that management held a very firm stance as to the finite useful life of goodwill.

From table 4 below, six companies have recorded 12 goodwill write-offs during the period of systematic amortization allowed. Amounts of these 12 write-offs ranged from \$0.029 million from Velo in 2005 to \$59.3 million from Telecom in 2002. The reasons of these write-offs included internal factors (such as poor performance) and external factors (such as market deterioration and economic downturn). For instance, Nuplex disclosed the reasons for their write-off in 2001 as the lost of contract, poor financial performance of acquired entity in 2002, and written down of goodwill before sale of subsidiary in 2003. Renaissance has not disclosed the reason for its \$1.1 million goodwill write off in 2001. Restaurant Brand has fully impaired goodwill of Pizza Hut Victoria because the directors considered the trading position of the acquired business and concluded that the value of the goodwill as currently recorded is not substantiated in 2006. Sky City has incurred a goodwill write-off of \$16.7 million as part of a full write-off of Force Corporation's investment in Argentina. This non-recurring item was caused by the collapsed economic situation in Argentina in December and January 2002. In 2002, Telecom wrote off \$593 million goodwill after an assessment of the fair value of AAPT. Telecom indicated that significant negative industry and economic trends have affected AAPT's operations and expected future growth. Velo has written down value of goodwill four times in the year of 2001, 2002, 2004 and 2005, and among these write-offs, Velo only disclosed the reason for write-off in 2004 as the directors considered this was prudent.

The reasons for goodwill write-off above systematic amortization can be categorised into two groups. The first reason is associated with the acquiree's poor financial

performance and the second reason is the impact of economic or external market forces. These write-off practices were adhered to the NZ GAAP requirements of systematic amortization and additional write off if necessary. Findings from this study support the view claimed by Henning (1994) that these write-offs indicate that at least some components of goodwill have shorter economic lives and by no means indefinite. Furthermore, these additional write-offs provide evidence of New Zealand companies taking a conservative approach to financial reporting. Their deliberate drive to remove any goodwill from the balance sheet may be associated with restoring objectivity and reliability to the financial statements.

Table 4: Write-offs above Systematic Amortisation

<b>Write-offs Above Systematic Amortisation</b>		
<b>Company Names</b>	<b>Amounts of Write-offs (in \$million)</b>	<b>Years of Write-offs</b>
Nuplex	11.88	2001
Nuplex	2.31	2002
Nuplex	5.65	2003
Nuplex	2.25	2004
Renaissance	1.1	2001
Restaurant Brand	2.89	2006
Sky City	16.73	2002
Telecom	593	2002
Velo	0.14	2001
Velo	0.5	2002
Velo	2.24	2004
Velo	0.029	2005

#### 4.3.4 Summary of Theme Two

Overall, 15 sampled New Zealand companies had conservative accounting practices in terms of short amortisation period and a number of additional goodwill write-offs above systematic amortisation. Findings from theme two suggest that at least some components of goodwill have shorter economic lives and by no means indefinite. Companies, who are not in favor of carrying a goodwill amount in their balance sheets may, use the impairment process as a vehicle to systematically reduce it for the purpose of restoring the objectivity and reliability to the financial statements.

## **4.4 Theme Three: Practices during Transition Period**

### **4.4.1 Introduction**

This section discusses the practices of companies during the transition surrounding the adoption of IFRS in New Zealand in 2005 through to 2007. The accounting treatment of goodwill during this period has been broken down into two categories (Beatty & Weber, 2006). The first is referred to as above-the-line meaning delay or avoid goodwill impairment. The second is referred to as below-the-line that means accelerated goodwill impairment (Beatty & Weber, 2006). Only the second of these is discussed here as the above-the-line accounting treatment during the transition period will be discussed together with impairment practice in post adoption years in a later section. NZ IFRS1 allowed companies to make a number of one-time adjustments in preparation for the ongoing adoption of IFRS. Cheng (2008) found that firms report goodwill write-offs in the transition year as cumulative effects of accounting changes for the purpose of taking this one-time opportunity to “clean the house”. This is different to the requirement of the adoption year under SFAS No. 142. NZ IAS36 does not have the option of companies recording transitional goodwill impairment either as cumulative effects of accounting changes or as loss of operation. This study assesses whether sampled New Zealand companies have accelerated goodwill impairment during the transition years by recording an excess negative amount of goodwill movements and restatement of amortisation in the previous year.

### **4.4.2 Below-the-line Accounting Treatment**

Four companies have recorded the goodwill impairment in their transition years from 2005 to 2007 (list of firms’ first financial years after adoption of NZ IFRS is in Appendix B). Hellaby Holdings has written down the BBQ Factory goodwill by \$4.064 million as a consequence of the review in the year of adoption of NZ IFRS in 2006. In 2007, in the review of BBQ Factory’s profit performance, Hellaby has taken a full impairment of \$11.59 million on the carrying value of goodwill, and on 30 June 2008 the BBQ Factory was sold. Nuplex has recorded \$1.116 million of goodwill impairment



to reflect the operation of acquired business assets in Brazil in the transition year of 2006 and fully impaired a \$0.5 million goodwill balance in 2007, due to the closure of this business. Restaurant brands has continuously impaired the goodwill of Pizza hut New Zealand, from transition year of 2007 (\$1.142 million) to subsequent years of 2008 (\$1.187 million) and 2009 (\$3.689 million). The reason for these write-offs was identified as the negative impact of significant competitor activity on acquired entities' operating activities. Telecom has impaired all the remaining goodwill balance (\$834 million) acquired from AAPT Australia in the transition year of 2006 as a consequence of a number of negative trends in Australia. This impairment is the second goodwill write-off for AAPT Australia after the first write-off of \$593 million in 2002. Nuplex has disposed \$14.291 million goodwill in transition year, but Nuplex has not disclosed any related information. Tower has recorded a negative \$151 million goodwill spin-off from its subsidiary AWM in 2005. This transaction does not seem an opportunistic behavior of managers as it followed a business restructure activity. Tower also transferred \$149 million goodwill to assets of disposal group classified as held for sale in 2006. Detailed information was disclosed for this transfer. Other companies do not have any dramatic negative amount of goodwill movement in items of goodwill disposed, changes or adjustments of goodwill and other goodwill movements. All the sampled companies have correctly restated the amount of amortisation in one-year prior adoption of NZ IFRS.

Among the four companies which have goodwill impairment in transition years, Hellaby Holdings, Nuplex and Restaurant Brands have not recorded a significant higher amount of goodwill impairment in transition years compared with the pre-IFRS and the post-IFRS years. Telecom's goodwill impairment in transition year of 2006 may cause questions regarding accelerating goodwill impairment in the adoption year because the amount of write-off in 2006 is about 1.4 times (\$834 million compared with \$593 million) of the first time write-off for the same acquired entity in 2002. Notably, Telecom has not written off any goodwill for this entity after 2002. Tower's \$149.083 million goodwill movement was classified as held for sale, so this does not seem to be an opportunistic behavior of managers. Lastly, none of these write-off companies has encountered loss or dramatic decline in earnings in their adoption years.

To conclude, the practices of Telecom and Nuplex may be questioned as favoring

excessive write-offs of goodwill during their transition years. For all the other companies, this study fails to find evidence to support the previous claim that managers exercised “big bath” or “clean the house” earnings management in the year of adoption NZ IFRS to reduce or avoid future goodwill impairment.

#### **4.4.3 Summary of Theme Three**

The practices of the New Zealand companies included in this study suggest a preference towards the elimination of goodwill from the accounts irrespective of the company’s performance and relativity to the market. The new regime of eliminating goodwill amortisation altogether would therefore suggest that companies may seek to channel their preference to eliminated goodwill through impairment irrespective of the impairment test guidelines offered in the standard.

### **4.5 Theme four: Testing Goodwill Impairment**

#### **4.5.1 Introduction**

According to NZ IAS36 paragraph 90 & 104 (NZICA, 2011b, pp. 33,35), goodwill impairment testing process has two steps. The first step is to compare the recoverable amount and the carrying amount of a cash-generating unit (CGU). If the carrying amount is less than the recoverable amount, the second step is required. Any impairment loss is initially offset against goodwill with the remainder being allocated to the assets in the cash-generating unit on a pro-rata basis. This two-step process should be done annually and whenever there is an indication that the unit may be impaired (NZICA, 2011b, pp. 33,35).

Based on the agency theory and results of empirical studies, management may potentially use goodwill impairment as a vehicle to manage earnings. Compared with the assessment of the amount of goodwill impairment, assessing determinants of

goodwill impairment is available for outsiders since the standards (both IFRSs and SFASs) have provided some indications as a minimum consideration for the reporting entities. As discussed in Chapter 2 of literature review, two common types of managers' manipulation in determining the timing of goodwill impairment are accelerating and delaying or avoiding goodwill impairment. Prior literatures have provided evidence of delaying/avoiding goodwill impairment after adoption of IFRS36 and SAFB142 when acquisition and performance indicators of goodwill impairment exist (Al-Khadash, 2009; Beatty & Weber, 2006; Churyk, 2005; Guler, 2007; Hayn & Hughes, 2006; Jahmani et al., 2010; Jarva, 2009; Li & Sloan, 2011; Li et al., 2011; Ramanna & Watts, 2010). A number of other authors (Hayn & Hughes, 2006; Li and Sloan, 2011) also found a time-lag between goodwill impairment, and the deterioration of the goodwill economic benefit. Instead of testing the relationships between these indicators and goodwill impairment/non-impairment, this study applies these indicators to the practices of sampled companies in order to either support or challenge the claim from previous literature. Based on the review of previous researches and data availability of this study, two acquisition indicators and three performance indicators have been selected, which are percentage of goodwill to purchase price (GW%), use of stock (shares) as the primary mode of consideration (StockM), book value to market value ratio (BTM), earnings before goodwill impairment/presence of loss (PreE/Loss) and return on asset (ROA). All of the three performance indicators are based on firm level figures due to the reason of unavailable financial information of reporting units with goodwill allocated to. This approach has been practiced by previous researchers because the information of reported segments' performance may not be able to present the performance of reporting unit or may contain more than one reporting unit's performance (Beatty & Weber, 2006; Guler, 2007; Hayn & Hughes, 2006; Vichitsarawong, 2007). Furthermore, Givoly, Hayn, and D'Souza (1999) found that segment data reported under SFAS 14, Financial Reporting for Segments of a Business Enterprise, generally has lower quality than firm-level data as the joint costs need to be assigned to firm's segments. Although NZ IAS36 does not specifically require in which period those examples of indicator under paragraph 12 should be assessed, NZ IAS36 paragraph 9 and 12 do indicate assessing the changes of those indicators during the current reporting period. This vague requirement has caused various interpretations by the researchers, for example, Hayn and Hughes (2006) measure the performance indicators over the period between the acquisition year and the write-off year. Guler (2007) and Li and Sloan (2011) measure the performance indicators at one year prior to the time of the impairment expense being

recognised. Al-Khadash (2009) measures the performance indicator at the end of the second year following the acquisition year and measures write-offs through the sample period of 1985 to 2005. Beatty and Weber (2006) measure the ratio of the firm market value to book value and write-off at the end of the fiscal year 2001. Based on review of standard requirements, and methods of previous studies, this study considers the most appropriate measurement method is to measure the performance indicator at the same year as write-offs are recorded. It is also appropriate to compare these indicators across all the years of post-IFRS. In total, 15 post-IFRS goodwill impairments were recorded. For each of the impairment, specific acquisition is traced back in order to find an accurate percentage of goodwill over the acquisition price and the mode of consideration in the year. List of firms' first financial years after adoption of NZ IFRS is in Appendix B.

If specific acquisition cannot be traced back, data for aggregated acquisitions reported in that year is used. This is consistent with Li et al (2011) when they examine how much a firm on average has overpaid for acquisitions. They found that footnote disclosures are not very useful in pinpointing the specific acquisition, whose goodwill is subsequently being impaired. Previous quantitative studies only identify the positive relationship between subsequent impairment and goodwill percentage over total consideration (GW%), and none of them has considered how significant the absolute number of this percentage is. This study considers any numbers over 10% as significant enough to illustrate an association between GW% indicator and subsequent goodwill impairment (refer to an amount equal to or greater than 10% of an appropriate base amount presumed to be material (Deegan & Samkin, 2011, p 53) and 6% of GW% is modest in (Petersen & Plenborg, 2010)).

The aim of this theme is to assess the practices of goodwill impairment or non-impairment by applying acquisition and performance indicators. This assessment is in two parts. The first is whether the write-off companies have common features of high percentages of goodwill over total acquisition prices paid, using stock as a main mode of consideration and poor financial performance after the adoption of NZ IAS36. The second is whether non-write-off companies have these indicators to perform these write-offs.

## **4.5.2 Goodwill Write-off Practices**

The following discussion has divided the 15 New Zealand companies included in this study into two groups. The first group is ten write-off companies and the second is five non-write-off companies.

### **4.5.2.1 Indicators of Write-off Companies**

#### ***Case 1 Abano Limited***

In the case of Abano, the company impaired \$4.5 million of goodwill in its rehabilitation segment that arose from the acquisitions of Burtons Healthcare and Ranworth Healthcare in 2003. The reason for this goodwill impairment is that earnings from the operations have been affected by changes in referrals from the Accident Compensation Corporation (ACC); therefore, projected cash flows no longer support the previous goodwill carrying value of these businesses. Goodwill percentage for the acquisition of Burtons is 98% and 88% for Ranworth. During 4 years of post-NZ IFRS period from 2007 to 2010, Abano's financial performance seems fluctuant when inspecting the figures of book value to market value ratio (BTM), earnings before goodwill impairment and return on asset (ROA). In the year of goodwill impairment recorded, overall performance is very poor, since BTM is greater than one (1.04), negative returns on asset (-0.67) and second lowest earnings before goodwill impairment. There is no financial information regarding Butons and Ranworth individual performance in Abano's annual reports.

Abano has high percentage of goodwill to purchase price (GW%), BTM was greater than one, low ROA and earnings before goodwill impairment in the year of write-off, which support the positive association between these indicators and subsequent goodwill impairment found in previous studies. However, the actual reason for goodwill impairment in 2010 seems contradictory to the impact of these indicators. In the company's 2010 annual report, reduced referral from ACC is the reason behind the 2010's goodwill impairment and this external factor is outside the scope of identified

indicators. Goodwill impairment took place 7 years after the acquisition, but this is not an evidence of write-off lagging behind operating performance since the write-off was caused by unexpected change of ACC policy rather than a constant deterioration of operating performance.

To conclude, Abano's practice does not support the relationship between subsequent goodwill impairment and acquisition and performance indicators, and the post-IRFS goodwill impairment is not a time-lag. Nevertheless, Abano is an unusual case which requires further analysis. It seems that Abano engages in extensive business acquisitions and disposals as it has a total of 15 acquisitions and 4 disposals from 2000 to 2010. Percentages of goodwill over purchase prices are very high for all the 15 acquisitions. There is a wide range from 33% to 154%, most of them above 80%. Abano's financial performance during the post adoption years has been unstable. This seems inconsistent with its strategy of continuing business combination. What could be explained here is that Abano's management believes that company will benefit from acquisition synergy in a long term instead of short term profitability and efficiency. However, financial statement users need to properly interpret managers' belief and intention converted through goodwill impairment practices, as these practices may be lack of reliability and relevance.

### ***Case 2: Fletcher Building***

In 2009, Fletcher Building had written off \$61 million in goodwill that included \$5 million for O'Brien acquired in 2006 and \$56 million for Formica Corporation acquired in 2008. The goodwill percentage was 46.43% for O'Brien and 37.59% for Formica Corporation. In the annual report of 2009, management indicated that the value of the assets has been adversely impacted due to the deterioration in the current market condition. This required a more cautious outlook of the company's sustainable mid-cycle earnings. This statement is consistent with Fletcher Building's financial performance in 2009. Its book value to market value ratio (BTM) has been less than one from 2006 to 2010, but earnings before the goodwill impairment in 2009 were their lowest at \$23 million. There was a loss of \$ 38 million after goodwill impairment, and a negative 0.76 return on assets ratio. Formica Corporation's individual performance was examined in details. Its operating earnings before unusual items in 2009 were \$18 million. It was 11% up from the prior year. Its unusual cost in 2009 was \$243 million,

including \$56 million write-off of goodwill, write-offs for some fixed assets and a number of inventories, and provision for redundancies. O'Brien's financials are not shown in group's annual reports.

Overall, practice from Fletcher Building supports previous findings of the association between subsequent goodwill impairment and indicators of GW%, earnings before goodwill impairment and ROA. The acquired entity's poor performance also contributes to this goodwill impairment. Impairment is a timely reflection of goodwill economic benefits. This can be illustrated by looking at the impairment of Formica Corporation. Immediate write off in the following year of acquisition, 37.59% of goodwill paid (\$416 million) over total consideration, losses incurred with subsidiary. Acquired subsidiary also has recorded a significant amount of unusual cost in the next year of acquisition, which includes items of some fixed assets, a number of inventories, and provision for redundancies. The potential write-off of these unusual items should have been identified by management during acquisition period. As a result of overpayment of the acquisition, Fletcher Building had to impair goodwill for this acquisition. Again, financial statements users need to analyze all related goodwill and goodwill impairment information to gain a better understanding of goodwill accounting information in the acquisition and impairment testing process.

The Fletcher building case highlights the subjective nature of the goodwill impairment process and the degree of professional judgement afforded to the company's management.

### ***Case 3: Hellaby Holdings***

In 2006, Hellaby Holdings had written off \$4.06 million goodwill for its acquisition of the BBQ Factory in 2004 and \$0.85 million for the Bendons acquired in 2003. GW% was 74.34% for the BBQ Factory and 89.33% for the Bendons. In 2007, one year before the disposal of the BBQ Factory, all the remaining \$11.59 million amount of goodwill was fully impaired. BTMs were less than one in the year of goodwill impairment in 2006 and 2007, but BTMs have been greater than one in the non-write-off years of 2008 to 2010. Earnings before goodwill impairment waved from the highest \$28.66 million in

2006, the year of write off, down to \$1.76 million in 2007. Then this figure went further down to the lowest of \$0.71 million in 2009. ROA decreased from 8.41 in 2006 to 4.23 in 2010, with the lowest ratio of -3.23 in 2007. Hellaby holdings only disclosed the BBQ Factory's financial details in its group annual reports and Bendons' information is not available. The BBQ Factory has constant shown underperformance since it was acquired in 2004. This underperformance has been affected by an overstocked situation and its special retail operation segment does not fit with Hellaby's investment strategy.

Hellaby's practice shows a strong impact of GW% and the subsidiary's financial performance on goodwill impairment. There is no evidence of the impact of the indicators from the group performance. In three-year time after the BBQ Factory's acquisition, the group has fully written off the overpaid goodwill. This loss-maker was sold on the fourth year after purchase. Similar to Fletcher Building, Hellabys also illustrates the management's unreliable judgement during the acquisition process because managers should be able to forecast the result of overstock and the challenge of managing a special operation segment. The Hellabys case indicates the suitability of the impairment process, by allowing management to accurately reflect, in the accounts, the future revenue generating potential of an acquired company. This is especially true, if the acquisition price is a gross overestimate of the actual earnings potential of the acquired company.

#### ***Case 4: Nuplex Industries***

In 2006 and 2007, Nuplex has written off \$1.65 million of goodwill arising from the acquisition of the Brazilian Coating Resins Group in 2005 and 2006. GW% for acquisitions of 2005 and 2006 was 20% and 22.6% respectively. During the first five years post-IFRS, Nuplex has experienced mixed results in relation to its financial performance with BTM greater than 1.0 from 2006 to 2009 and the lowest earnings before goodwill impairment and ROA in 2009. In the years of goodwill impairment in 2006 and 2007, BTMs were greater than one, earnings before goodwill impairment decreased from \$64.95 million to \$ 28.71 million, and ROA dropped from 6.56 to 2.71. Although the changes in ROA ratios and earning before goodwill impairment from 2006 to 2007 are significant, the two numbers in 2006 and 2007 were not lower than other



years.

As stated in previous section, this study considers GW% over 10% as significant enough to illustrate an association between GW% indicator and subsequent goodwill impairment. For Nuplex, 20% goodwill over purchase price could be a positive indicator for the subsequent goodwill impairment. Firm level performance in the years of impairment was not lower than other years. It seems that group performance does not have relationship with subsequent goodwill write off. On the other hand, the acquired subsidiary contributed a loss of \$3.52 million to the group in the first financial year-end after acquisition. It was closed in the second year after acquisition. Overall, Nuplex's practice supports the relationship between subsequent goodwill impairment and subsidiary's performance and indicators of GW% and BTM. Similar to Fletcher Building and Hellaby Holdings, Nuplex's goodwill impairment has not lagged behind the deterioration of its economic benefit. However, millions of dollars of the purchase payment have been fully expensed in a short period with the cost of shareholders' investment. This indicates that management needs to re-consider the strategy for future business combinations.

Business acquisitions will normally be associated with a degree of risk as synergies are worked through. However the capitalisation of goodwill, which is then immediately followed by a period of significant impairment, is likely to increase the volatility in earnings and risk in returns. Such volatility should be reflected in the accounts, as it provides the user, with a more reliable indication of the inherent risk companies go through post acquisition. However some caution may be considered in relation to the merits of withholding from writing off goodwill until the synergy settlement period has been worked through. It is possible that given time, the expected level of synergies may well eventuate. The present accounting standards discourage this in favour of focusing on current and past performance.

#### ***Case 5: Renaissance Corporation Limited***

In 2009, Renaissance impaired all its remaining balance of goodwill of \$0.79 million of Insite acquired in 2000. In the same year, the group also impaired the full balance of

\$0.09 million goodwill for ECNZL acquired in 2008. GW% for the purchase of Insite was 89% and 34.8% for ECNZL. 88% purchase price of Insite in 2000 was paid by shares. The group had the weakest performance in 2009 compared with other post-IFRS years. In 2009, BTM ratio was 1.33, earnings before goodwill impairment was the lowest (\$1.33 million loss), and ROA was the lowest (-4.87). In 2009, before restructuring of ECNZL and Insite, the group assessed the recoverable amount of goodwill associated with ECNZL and Insite, and it was determined to fully impair goodwill of them.

The level of goodwill impairment by Renaissance is associated with its high GW%, and all the three performance indicators. Although the annual reports revealed that the reason for both write-offs was the group's restructuring of its business segments, this is inconsistent with the general aim of many corporate restructuring exercises in terms of strengthening the firm's future earnings potential. This reason does not seem to deny the association identified above because restructuring does not necessary lead to a full write-off of goodwill. Reallocating goodwill to other cash-generating units is always an alternative. There was no disclosure of acquired subsidiaries' performance; so it is difficult to conclude whether goodwill impairment of ECNZL and Insite is a time-lag between goodwill economic deterioration and eventual write-off or not. This immediate full write-off of goodwill is an evidence of management's overconfidence for the business acquisitions. As indicated in the annual report of 2008, the purchase of ECNZL was at a premium. This goodwill premium was based on the group's belief that the acquisitions would bring future growth and additional synergies.

#### ***Case 6: Restaurant Brands New Zealand Limited***

Restaurant Brand has written off a total of \$6.02 million goodwill of its Pizza Hut New Zealand segment from 2007 to 2009. The acquisition of the Pizza Hut New Zealand segment can be traced back to January 1995, when Restaurant Brands Pizza Limited (formerly Restaurant Brand New Zealand Ltd) purchased the business of Pizza Restaurants (New Zealand) Limited. Due to the reason for unavailability of the annual report in 1995, two acquisition indicators have not been calculated. The disclosure in 2007 to 2009 annual reports indicates that Pizza Hut New Zealand had been

experiencing a dramatic downturn caused by significant competitors' activities from 2007 to 2009. This downturn had led management to review its future operating activities, according to the result of this review, management decided to impair Pizza Hut New Zealand's goodwill by a total of \$6.02 million from 2007 to 2009. The group's poor performance in 2007 was reflected in a \$2.4 million loss before goodwill impairment and negative 3.13 of ROA. From 2008 to 2010, the group's earnings before goodwill impairment and ROA were positive and had been increasing.

Acquisition indicators related to Restaurant Brand's goodwill impairment are not available. Earnings before goodwill impairment and ROA support previous finding in their predictive abilities of goodwill impairment. Subsidiary level performance is a major contributing factor for the impairment. Book value to market value (BTM) has never been greater than one from 2007 to 2010, hence it cannot be considered as a contributing factor for the goodwill impairment. The goodwill write-off has been recognised from the first year of the deterioration of the performance of acquired entity. This timely write-off shows a compliance with standard requirement, although greater detail in terms of the reasons for the impairment would add context to the financial statements.

#### *Case 7: SKYCITY Entertainment Group Limited*

Sky City has impaired \$54.79 million goodwill in its cinema segment in 2008, but the related business acquisition cannot be identified. BTMs were less than one in all the post-IFRS years. Earnings before goodwill impairment had a slight decrease from \$119.75 million in 2006 to \$101.87 million in 2010 and ROA ranged from 7.31 in 2006 to 5.31 in 2010. Overall the group level performance in the write-off year of 2008 was not lower than the other years. In the annual report of 2008, the directors determined that a write-down in the carrying value of the Cinemas business is appropriate, based on the lower than expected operating results.

For Sky City, it seems that group performance is not associated with the subsequent goodwill impairment; instead, subsidiary's poor performance is the main reason for the impairment according to the annual report of 2008. It is not possible to examine the

association between acquisition indicators and goodwill impairment due to unavailable information related with the specific acquisitions. It is also not possible to conclude the timing of write-off due to the non-disclosure of subsidiary level financial performance. However this company's practices indicate a degree on conservatism in the recognition of its goodwill impairment which may be suitable for this particular industry.

#### ***Case 8: Smartpay Limited***

Smartpay (an IT services company) wrote off \$0.419 million goodwill in 2009. This amount of goodwill arose from the acquisitions of MIPS and FIVO. GW% for the two acquisitions was 55.53% and 48.24% respectively. After adoption of NZ IFRS, the group's performance had been continuing to worsen. The loss before goodwill impairment increased from \$0.363 million in 2006 to \$2.65 million in 2010, and ROA varied from -21.03 in 2006 to -8.31 in 2010. In 2009, BTM was greater than one (1.03), loss before goodwill impairment was \$2.453 million, and ROA was -24.95. The annual report of 2009 indicated that the impairment charge was a result of the change in the discount rate, and the forecast financial performance of the cash-generating unit.

The practices of Smartpay indicate the management's decision to impair goodwill following a prolonged period of poor performance. Group's performance has been disappointing since 2006 but it has not written off any carrying amount of goodwill before 2009. There would appear to be a delay in the recognition of this impairment, although this may well be appropriate given the company's efforts to alleviate their performance situation. The result of the impairment testing process is consistent with the indication of acquisition and performance indicators.

#### ***Case 9: Telecom Corporation of New Zealand Limited***

In 2006 Telecom has fully impaired the \$778 million goodwill acquired from the business combinations of APPT Australia in 2000 and 2001. Aggregated GW% was 85.5% and cash was paid in two settlements. In 2009, the \$68 million goodwill of PowerTel was written off. This subsidiary was acquired by cash in 2007 with 17% of

goodwill over purchase price. BTM from 2006 to 2010 had been less than one. Earnings before goodwill impairment had been in a stable range from the lowest of \$302.7 million in 2007 to the highest of \$713 million in 2008. ROA changed dramatically from -6.95 in 2006 to 41.77 in 2007 and then gradually down to 5.47 in 2010. The assessment in 2006 indicated that a number of negative trends had affected the short and long-term earnings outlook for the operations of APPT Australia. Economic and competitive conditions had caused the decline in cash flow expectation and growth rate forecast for PowerTel in 2009, thereby, goodwill was required to be written off.

High GW% and a negative ROA seem to have associations with subsequent goodwill impairment of APPT Australia in 2006, but not for the impairment in 2009. Firm level performance indicators of BTM and earnings before goodwill impairment do not explain two write-offs in 2006 and 2009. Subsidiaries' performance had contributed to both of subsequent goodwill impairment. Both write-offs do not seem to be lagging behind their economic deterioration because the group decided to impair the value of goodwill soon after the assessment of the subsidiaries' financial performance.

#### ***Case 10: Velo Capital Limited (former Media Technology)***

In 2009, Velo has written off \$0.8 million of goodwill for the acquisition of Media Technology Group Limited in 2004. This acquisition was paid by share consideration and had 79% of goodwill over fair value of the company. In the three years following the acquisition, BTM numbers were all less than one. Velo has experienced losses before goodwill impairment and negative ROA in 2006, 2007, 2009 and 2010. Acquired Media Technology Group Limited performance has not been disclosed since the acquisition date. The reason for this impairment is that directors considered the recoverable amount associated with the goodwill to be nil.

For the goodwill impairment testing practiced by Velo, GW%, mode of stock consideration, earnings before goodwill impairment and ROA are significant for the reported goodwill impairment. Earnings before goodwill impairment and ROA in the year of write-off have decreased significantly from positive numbers in previous year down to negative number. It would appear from the timing of the company's

performance and the recognition of the goodwill impairment of five years that there has been a delay. This is not unreasonable if the company felt that they would trade out of this weak period.

#### **4.5.2.2 Summary of write-off companies**

To conclude, a total of 15 goodwill impairment and 18 related acquisitions have been observed in this study. Overall findings provide little support for the results from previous studies in two aspects of predictability of acquisition and performance indicators and the time-lag between goodwill impairment and deterioration of subsidiaries' performance. Among two acquisition indicators and three performance indicators selected by this study, GW% seems to have closer relationship with subsequent goodwill impairment than other indicators. Three firm level performance indicators have strong associations with subsequent write-off only when a company shows a constant loss across years or it has extreme fluctuant performance through years. On the other hand, the performance of acquired entities indicates a close relationship with goodwill write-offs after the acquisitions.

Book to market ratio (BTM) is not a relevant factor because 8 out of 10 write-off companies' BTMs were less than one in the years of write-offs. Stock as a main mode of consideration is not a relevant factor since three acquisitions with subsequent write-offs were solely paid by share, one acquisition was paid by a combination of share and deferred cash, and the other 14 acquisitions were paid by cash.

This study found that sampled New Zealand firms have practiced timely and full write-offs of overpaid goodwill in the years when management realises the deterioration of subsidiaries' performance. This answers the query as to whether goodwill impairment was lagging behind its deterioration in operating performance. The sampled 15 New Zealand companies have illustrated a relative high level of compliance with the determinants of goodwill impairment requirements under NZ IAS36.

Overall, findings from this study are not consistent with those from previous literature.

This study challenges the grounds of previous studies as many of them use firm-level performance indicators; whereas this study indicates that subsidiary's individual performance contributes more than firm level performance to the recorded goodwill impairment. Furthermore, this study indicates that sampled New Zealand firms engage extensive merger and acquisition activities and they often pay high percentage of goodwill over total consideration. However, the performance of acquired subsidiaries in many cases, hardly achieves managers' expectation, and in some cases is worse. The acquired businesses are even discontinued soon after the acquisitions. This finding could ring alarm bell for managers to reconsider their future merger and acquisition strategies. Lastly, this study suggests that analysing determinants and timing of goodwill impairment is not an easy task for financial statement users. Sufficient disclosure in annual reports is a necessary, and a thorough and comprehensive interpretation is also needed.

#### **4.5.2.3 Indicators for Non-write-off Companies**

Five companies have not recorded any goodwill impairment during the years after adoption of NZ IAS36. These companies are Contact Energy, Freightways, Mainfreight, Sky Network Television and Tower. Contact Energy had two cash acquisitions in 2000 and 2007 that had 102% and 2% goodwill over total purchase consideration respectively. Freightways had 11 acquisitions from 2000 to 2010, with an average GW% of 62.31%. Mainfreight had eight acquisitions, where the average GW% was 74.97. Sky Television had six acquisitions with an average GW% of 94%. Tower had four acquisitions with an average GW% of 6.64%. None of the acquisitions with disclosure of payment modes was paid by single method of market shares, and five of them were paid by the combination of cash and shares. During the years of post-IFRS, all of these five companies had BTM less than one and stable and positive earnings before goodwill impairment and ROA. None of them had extremely poor performance and dramatic change across years.

All of five non-write-off companies' firm level financial performance is strong, thus three performance indicators support the reason for non-write-offs. GW% for all the non-write-off companies is very high, averaging over 50%, except for Tower.

According to the practices of write-off companies above, this acquisition indicator has close association with the subsequent goodwill impairment. However, it is not reasonable to question the practices of these non-write-offs by GW% indicator itself without looking at subsidiaries' financial performance. The indication of high GW% is that future financial performance of these five non-write-off companies needs to be monitored to warrant the timely goodwill impairment. None of the acquisitions was solely paid by shares, so stock as the main mode of consideration is not relevant to the subsequent write-off.

#### **4.5.2.4 Summary of Non-write-off Companies**

In summary, there are no reasons based on performance or otherwise to suggest that goodwill should be impaired for the five companies who have chosen not to do so. While the prior regime would suggest that this amount should be amortised, it would appear that such an amortisation would be without reason as these five companies are performing as expected.

The findings from five non-write-off New Zealand companies do not support the claim from previous studies which show managers use discretions to delay goodwill impairment when acquisition and performance indicators suggest the need for the impairment. Accounting information revealed by goodwill impairment testing practice is reliable and relevant. However, this conclusion might be inappropriate as reporting unit level performance of these five companies has not been discovered due to the unavailable data from these companies' annual reports.

#### **4.5.3 Summary of Theme Four**

In summary, the practices from ten write-off and five non-write-off companies show that, among five acquisition and performance indicators included in this study, only GW% seems to have apparent relationship with the subsequent goodwill impairment. The performance of acquired subsidiaries is closely related with the immediate write-offs after the acquisitions. New Zealand firms have practiced timely write-offs of



overpaid price for goodwill when management realises the deterioration of the subsidiaries' performance. However, the fact of extensive business combinations and immediate write-off of large amount of acquired goodwill suggests ongoing monitoring the performance of the acquired entities, and the future goodwill impairment testing process. This will ensure the reliability and relevance of goodwill accounting information to be continuously preserved.

## **4.6 Theme Five: Compliance and Practices under Current Regime**

### **4.6.1 Introduction**

The introduction section of theme four has summarized the process of recognition and measurement of purchased goodwill. Goodwill is a non-identifiable asset acquired from a business combination. Since it is not identifiable, it is allocated to a cash-generating unit to which it relates. This cash-generating unit may comprise a number of identifiable assets used in collaboration. During the goodwill impairment testing process, the carrying amount of the cash-generating unit is compared to the recoverable amount of the unit. When the recoverable amount is lower than the carrying amount, the difference is recognised as an impairment loss. This loss is initially offset against any goodwill that has been allocated to that unit with the residual being allocated pro-rata to the identifiable assets within that unit. This process has resulted in a number of anomalies in the financial reports. These are to be discussed below. As discussed in Chapter 2, when managers exercise goodwill impairment testing and calculate the amount of goodwill impaired, they need to consider and disclose some key assumptions and important input parameters.

This study found that all the 15 sampled New Zealand companies have applied value in use methods to measure the recoverable amount of cash-generating units. Under value in use method, key disclosure and input parameters of testing and calculating goodwill impairment are the following. The first is the number and description of CGUs. The second is the justification of methods with value in use or fair value used to determine

the recoverable amount of a cash-generating unit. The third is the assumption and horizon of cash flow if the value in use method to be used. The fourth is the detailed description, justification and calculation of discount rate and growth rate. The fifth is the sensitivity analysis caused by the changes of key assumptions and input parameters. Neither NZ IAS36 and SFAS142 has specific formulas regarding how to calculate net recoverable amount of a CGU under both fair value and value in use methods. Moreover, the disclosure requirements are rather extensive and some concessions to these requirements are given to qualifying entities. All these factors have caused diverse understanding and interpretation not only for financial statement preparers but also for empirical researchers. Similar to the selection of acquisition and performance indicators in previous section, this theme only analyses the input parameters and disclosure that have been identified by previous studies and have been disclosed in the annual reports of sampled companies. These input parameters include ratio of CGUs to segments, cash flow forecast period in calculating value in use of a CGU, discount rate, and growth rate. Consequently, the key disclosure in this theme will be related to these input parameters, and one additional disclosure to be discussed is the sensitivity analysis. As the testing and calculating process of goodwill impairment is only effective after adoption of NZ IAS36, all the input parameters to be discussed below are within the period of post-IFRS years (from 2006 or 2007 financial year-end to 2010 financial year-end). If not specified, term of “all the years” means from the years of adopting NZ IFRS to 2010. List of firms’ first financial years after adoption of NZ IFRS is in Appendix B.

#### **4.6.2 Ratio of Segments to Cash-generating Units**

NZ IAS36 paragraph 130 (d) requires a non-qualifying entity to disclose a description of the cash-generating unit or units and the amount of the impairment loss recognised or reversed by class of assets (NZICA, 2011b, pp. 40, 41). NZ IAS36 paragraph 80 (b) requires that a cash-generating unit should not larger than an operating segment (profit centre) (NZICA, 2011b, p. 30). Although the interpretation of this requirement does not necessarily lead to the statement that the number of cash-generating units is greater than the number of operating segments, in most cases the companies identify cash generating units as one level below their operating segments, therefore, the number of cash-generating units should ideally exceed the number of segments for each reporting entity. If the number of the cash-generating units is smaller than the number of the operating

segments, this has the potential to mask the financial performance of weak segments compared to those that are strong (Bepari et al., 2011). This inappropriate identification of CGU leads to either permanently avoiding the recognition of goodwill impairment or inappropriately delaying goodwill impairment (Bepari et al., 2011; Petersen & Plenborg, 2010). Another effect of the inappropriate identification of CGU is the allocation of impaired value of a CGU (or goodwill). If there are multiple operating segments within a CGU, then the impairment loss will be allocated to all the operating segments irrespective of their individual performance (Bepari et al., 2011). This arises from the fact that goodwill impairment is allocated to a bigger CGU but not a smaller operating segment.

Empirical studies have showed evidence that the number of defined CGUs is smaller than the number of the operating segments. For example, Carlin & Finch (2010 c) found that 8 over a total of 34 sampled New Zealand firms in 2007 have defined fewer CGUs than operating segment. Bepari et al (2011) observe a total of 916 Australia firms from 2006 to 2009, and they found that 287 firms have defined numbers of CGUs less than their business segments. Petersen & Plenborg (2010) found that five firms operate with fewer CGUs than segments in 62 sampled Danish firms in 2006. Carlin, Ji & Finch (2010) and Bepari et al (2011) also found increased number of firms which have defined number of CGUs greater than or equal to number of business segments through the sample period from 2006 to 2009. Lastly, Bepari et al (2011) found only a small amount of sampled Australia firms had not effectively disclosed the number of CGUs.

Table 5 below shows the strong evidence of non-disclosure in identifying CGUs (goodwill and other assets allocated to) as only three companies (Abano, Sky TV and Telecom) have clearly disclosed both the numbers and the description of CGUs. The other 12 companies only disclosed CGUs information related with goodwill and other intangible assets. This has caused the researcher's difficulty in finding out the actual number of CGUs with all the assets allocated. The companies, who have allocated goodwill to greater number of CGUs than number of the operating segments, were deemed to have complained the standard. Other companies may have an equal number of CGUs with goodwill allocated to and the number of the operating segments, or may have a smaller number of CGUs with goodwill allocated to than the number of the operating segments. For these companies, this study further discovers whether these

identified CGUs with allocations of goodwill represent all or part of the operating segments. If all the CGUs with allocations of goodwill represent part or all the operating segments, it is assumed that the number of CGUs with goodwill and other assets was not smaller than the number of the operating segments. The discovery result supports this assumption. Another finding was that all the sampled companies had clearly allocated their purchased goodwill to CGUs in each year of post-IFRS. In contrast, non-compliance in this area has been found by Peterson and Plenborg (2010) and Bepari et al (2011). Furthermore, this study does not support Carlin, Ji & Finch's (2010) claim that companies use a very limited number of CGUs to avoid or delay the recognition of goodwill impairment. In this study, only Nuplex, Sky Television and Smartpay have persistently defined one or two operating segments and CGUs. Sky TV and Smartpay seem to have reasonable explanation. Nuplex has not disclosed information for the limited number of operating segments and CGUs. For example, in Sky TV 2010 annual report they write:

“SKY's business is carried out solely in New Zealand and provides only one distinguishable service i.e. the delivery of multi-channel television services. Accordingly there are no separate segments” (Sky TV, 2010, p. 47)

In the case of Smartpay, they write in their 2010 annual report:

“The Group's business provides technology solutions through various product lines into the same markets, to the same customers, with all porting primarily for internal control purposes between New Zealand and Australia” (SmartPay, 2010, p. 31)

Table 5: Testing and Calculating Goodwill impairment\_ Number of CGUs

**Number of CGUs**

Companies	Years	No of CGUs	No of operating segments
Abano	2006	5	5
Abano	2007 to 2010	4	4
Contact	2006 to 2010	3	2
Flecther	2006	6	5
Flecther	2007	7	5
Flecther	2009	10	6
Flecther	2008 & 2010	8	6
Freightways	2008 to 2010	8	3
Hellaby Holdings	2006 & 2007	7	4
Hellaby Holdings	2008 to 2010	9	6
Mainfreight	2007 to 2010	6	6
Nuplex	2006 to 2010	2	2
Renaissance	2007 to 2010	4	4
Restaurant Brand	2007 to 2008	4	4
Restaurant Brand	2009 to 2010	3	3
Sky TV	2006 to 2010	1	1
Sky City	2006 & 2007	4	4
Sky City	2008 & 2009	5	5
Sky City	2010	6	6
Smartpay	2006 & 2007	2	2
Smartpay	2008 to 2010	1	1
Telecom	2006 to 2008	5	5
Telecom	2009 to 2010	6	6
Tower	2006 to 2009	4	4
Tower	2010	5	5
Velo	2006 to 2007	3	3
Velo	2008	2	1
Velo	2009	3	3
Velo	2010	4	4

Overall, this study failed to find similar evidence with previous studies that companies defined a smaller number of CGUs than the number of the operating segments in goodwill impairment testing process. As a result, sampled New Zealand companies had not practiced management discretion to delay or avoid goodwill impairment by manipulating number of CGUs. However, this study found stronger evidence of non-disclosure in identifying CGUs. As it is not common in practice for a public listed company to be a qualifying company, the reason for this non-disclosure cannot be explained by the concession given to a qualifying company.

### 4.6.3 Cash Flow Forecast Period

NZ IAS36 paragraph 33 (NZICA, 2011b, p. 21) requires that if using estimated future cash flow projections to measure the value in use of cash-generating units, these projections should be based on the most recent financial budgets or forecasts and

extrapolated by using a steady or declining growth rate for the period beyond the most recent financial budgets or forecasts. Paragraph 35 (NZICA, 2011b, p. 21) further requires that cash flow projections based on financial budgets or forecasts should not go beyond five years, and if it has to be over five years, management should demonstrate these projections are reliable, accurate and foreseeable. NZ IAS36 paragraph 134(d) (NZICA, 2011b, p. 42) requires a non-qualifying entity to extensively disclose information related to the value in use method including a description of each key assumption, approach and period of cash flow projections. A limited number of previous studies had investigated the compliance issue of the cash flow forecast period. Bepari et al (2011) has recently studied a total of 916 Australia firm-year observations from 2006 to 2009, and their results imply that considerable amount of Australia firms show certain level of non-compliance with the cash flow forecast period requirements and they also show limited relevant disclosure from 2006 to 2009. In their study, an average 20.10% of firms reported cash flow forecast periods greater than 5 years and an average 22.11% of firms failed to disclose explicit forecast periods. Carlin and Finch (2008 a) also raised questions for Australia firms' practices in 2006 in the areas of no effective disclosure of cash flow forecast period. The wide range of the cash flow forecast periods, including a maximum period up to 30 years, also raised questions to challenge the reliability of the value in use model in goodwill impairment testing and calculation process. The robustness of goodwill impairment assessment is in question.

As indicated in table 6 below, Abano, Fletcher Building, Hellaby, Mainfreight, Renaissance, Restaurant Brand, Sky City Smartpay and Telecom have reported no longer than a five years cash flow forecast period. Among these companies, Nuplex Sky City and Restaurant Brand have the shortest cash flow forecast period of three years in all of their post-IFRS years. Freightways and Tower have not disclosed a cash flow forecast period in any year since they adopted NZ IFRS in 2008 and 2006 respectively. Contact and Velo have failed to disclose forecast period in their first years of NZ IFRS adoption; Nuplex disclosed a cash flow forecast period only in 2010 although it adopted NZ IFRS in 2006. Notably, from 2009, Contact changed its cash flow period from the previous five years into ten years. The explanation of a 10-year cash flow forecast was considered appropriate because of the long-term nature of the business in its 2010 annual report. Sky Television also reported 10 years financial forecasts as the basis of cash flow projections from 2006 to 2009, but it did not provide any explanation for such

a long period. This number was reduced to five years in 2010.

Table 6: Testing and Calculating goodwill impairment \_ Cash flow forecast period

Testing and Calculating goodwill impairment _ Cash flow forecast period		
Cash flow forecast period		
Companies	Years	Period of cash flow forecast
Abano	2006	4
	2007	4
	2008	4
	2009	4
	2010	4
Contact	2006	no disclosure
	2007	5
	2008	5
	2009	10
	2010	10
Fletcher Building	2006	5
	2007	5
	2008	5
	2009	5
	2010	5
Freightways	2008	no disclosure
	2009	no disclosure
	2010	no disclosure
Hellaby Holdings	2006	4
	2007	4
	2008	4
	2009	2
	2010	5
Mainfreight	2008	5
	2009	5
	2010	5
Nuplex	2006	no disclosure
	2007	no disclosure
	2008	no disclosure
	2009	no disclosure
	2010	2
Renaissance	2007	5
	2008	5
	2009	5
	2010	5
Restaurant brand	2007	3
	2008	3
	2009	3
	2010	3
Sky television	2006	10
	2007	10
	2008	10
	2009	10
	2010	5
Sky city	2006	3
	2007	3
	2008	3
	2009	3
	2010	3
Smart pay	2006	5
	2007	5
	2008	5
	2009	5
	2010	5
Telecom	2006	5
	2007	5
	2008	5
	2009	5
Tower	2006	no disclosure
	2007	no disclosure
	2008	no disclosure
	2009	no disclosure
	2010	no disclosure
Velo	2006	no disclosure
	2007	5
	2008	5
	2009	5

This study found similar non-compliance issues in a few sampled New Zealand firms. Contact Energy in 2009 and 2010, and Sky Television in 2006 to 2009 have used a 10-year cash flow forecast period. Neither of Contact Energy and Sky Television is able to show their confidence in reliably and accurately forecasting over such a longer period as

required by standard. Contact provided a simple reason as they said in annual report of 2010; a 10-year cash flow forecast was based on “the long-term nature of the business”. However, this reason seems too weak to support the confidence in using a 10-years cash flow forecast period. Contact also puts key assumptions in the value in use calculation for cash-generating units over years, such as, they reviewed customer numbers and customer churn, gross margin per customer and cost to serve per customer. These assumptions are very general and had never been adjusted through the five years. Sky TV did not provide any explanation regarding their longer than five years cash flow forecast. Petersen and Plenborg (2010)’s study also show a varied budget period from five to ten years in their sampled Danish firms, but Danish firms have disclosed decisive reasons for choosing a longer period, such as, the ability to create abnormal profit and the life cycle of the CGUs.

Bepari et al (2011) found that Australia firms have not significantly improved the compliance level, with five years cash flow forecast period requirement through sample period. These firms’ compliance with the disclosure requirement has increased significantly. This study found an increased compliance level with the disclosure requirements during the post-IFRS years, for example, Contact, Nuplex and Velo all have disclosed a cash flow forecast period by the financial year-end of 2010. However, Freightways and Tower reluctantly disclosed this information in all the post-IFRS years.

Finally, this study does not support the claim of the reliability of the value in use model and the robustness of the goodwill impairment assessment by Carlin and Finch. It seems unreasonable to question the length of the cash flow forecast period without considering other relevant factors. One factor is the extrapolated growth rate for the years beyond the forecast period. For example, Smartpay has reported five years cash flow forecast period, but it has estimated high growth rates as 7% to 10%; whereas Contact has estimated 1-3% growth rate although its cash flow forecast period is 10 years. The uncertainty of the estimated future cash flow projections would increase only under a circumstance of a combination of longer financial budgets/forecasts period and an extremely high and increasing growth rate beyond the financial budgets/forecasts period. In this study, none of these 15 companies fell into this category.



Overall sampled companies have exercised an acceptable level of compliance in term of the cash flow forecast period used measuring the recoverable amount of cash-generating units. By the financial year–end of 2010, only Contact still applies a longer cash flow forecast period of 10 years, but Contact has a very low estimated perpetual growth rate. This is arguably appropriate given the industry in which they operate. Two companies (Freightways and Tower) have not disclosed their cash flow forecast periods in any of the post-IFRS years although they have been using value in use method. The reason for their non-compliance needs to be further explored.

#### **4.6.4 Discount Rate**

Although NZ IAS36 lists extensive guidelines in arriving at an appropriate discount rate in value in use method, a clear calculation formula has not been provided by the standard. This vague requirement stems from the principle-based nature of the standard. It is also due to the application difficulties in practice. Nevertheless, numerous empirical studies have developed some common criteria to test the appropriateness of discount rate selected and test the disclosure level with discount rate requirement. This study employs Carlin and Finch's (2008 a) method as this method has been applied by many researchers in subsequent studies. They use a compliance and disclosure quality taxonomy to group discount rates into four categories, single explicit discount rate, multiple explicit discount rates, range of discount rate and no effective disclosure.

All of the 15 sampled New Zealand companies used value in use method to arrive at the recoverable amount of cash-generating units and all the companies chose discounted future cash flow projections to estimate the amount of value in use. As shown in table 7 below, some companies started to disclose their discount rates one or two years after adoption of NZ IFRS, such as, Contact, Restaurant, Smartpay and Velo. Tower started to disclose their discount rates three years after adoption. By the year-end of 2010, all of the sampled 15 companies had disclosed their discount rates. For the purpose of consistent comparison, post-tax discount rates are converted to pre-tax discount rates by simply dividing them by one minus the prevailing corporate tax rate although this is not the most appropriate method according to prior literatures as discussed in Chapter 2 literature review. After this conversion, the corresponding pre-tax discount rate for the

highest post-tax discount rate is 19.71% and this number is smaller than the maximum pre-tax discount rate of 30%. Despite the wide range of discount rates from 8% to 30%, the majority discount rates ranging from 10% to 20%. Nine companies including: Abano, Freightways, Renaissance, Restaurant Brand, Sky Television, Sky City, Smartpay and Velo report single explicit discount rate in all their post-IFRS years. Only Maifreight reports multiple explicit discount rates in all the years. Fletcher Building, Hellaby Holdings, Nuplex and Tower report multiple explicit discount rates in some post-IFRS years but not all. Contact Energy reports a range of discount rate from 2007 to 2010, and Telecom reports a range of discount rate in 2007 and 2008. Small outliers of 8% and 10% are reported by Contact Energy, Fletcher Building, Mainfreight and Sky City, while two large outliers over 20% are reported by Velo.

Table 7: Testing and Calculating goodwill impairment \_ Discount rate

Discount rate			
Companies	Years	Discount rate: single/multiple/range/no disclosure	Amount of discount rate
Abano	2006	s	10.00%
	2007	s	10.15%
	2008	s	10.73%
	2009	s	10.73%
	2010	s	10.73%
Contact	2006	no disclosure	no disclosure
	2007	s	8-10%
	2008	s	8-10%
	2009	s	8-10%
	2010	s	8-10%
Fletcher Building	2006	s	10.00%
	2007	s	10.00%
	2008	m	9%, 10%
	2009	m	9%, 10%
	2010	m	9%, 10%
Freightways	2008	s	10.65%
	2009	s	10.30%
	2010	s	10.65%
Hellaby Holdings	2006	m	13%,14%, 14%,13%-15%
	2007	m	13%,14%, 14%, 13%-15%
	2008	m	13%,14%, 14%, 13%-15%
	2009	s	13.50%
	2010	s	13.50%
Mainfreight	2008	m	8.8%, 13.1%, 13.9%, 13.9%, 16.9%, 16.9%
	2009	m	9.1%, 9.1%,14.1%,14.1%,17.1%, 17.1%
	2010	m	12.3%, 15.2%, 16.1%, 16.1%, 16.8%,16.8%
Nuplex	2006	s	9.80%
	2007	s	10.70%
	2008	s	11.20%
	2009	m	15.4%, 16.7% , 17.1%, 17.3%, 17.3%
	2010	m	14.6%, 14.8%, 14.8%, 14.7-15.1%, 16.6%
Renaissance	2007	s	16.00%
	2008	s	14.00%
	2009	s	13.00%
	2010	s	13.23%
Restaurant brand	2007	no disclosure	no disclosure
	2008	s	11.00%
	2009	s	11.00%
	2010	s	11.00%
Sky television	2006	s	9.70%
	2007	s	9.70%
	2008	s	11.60%
	2009	s	13.30%
	2010	s	12.20%
Sky city	2006	s	8.6%
	2007	s	8.7%
	2008	s	8.7%
	2009	s	10%
	2010	s	10%
Smart pay	2006	no disclosure	no disclosure
	2007	no disclosure	no disclosure
	2008	s	10.30%
	2009	s	13.80%
	2010	s	13.20%
Telecom	2006	s	13.4%
	2007	s	11.7-13.4%
	2008	s	13.4-14.7%
	2009	s	13.6%
	2010	s	12%
Tower	2006	no disclosure	no disclosure
	2007	no disclosure	no disclosure
	2008	no disclosure	no disclosure
	2009	m	11.6%, 12.3%
	2010	m	11%, 11.5%
Velo	2006	no disclosure	no disclosure
	2007	s	20%
	2008	s	20%
	2009	s	30%
	2010	s	30%

#### **4.6.4.1 Discussion of Range of Discount Rate**

From this section onward, this study compares the finding of the discount rate and the growth rate applied by sampled New Zealand firms with the previous findings from Australia firms. This is reasonable as these two countries share many common features in the accounting field. Previous findings show that firms disclose a wide range of discount rates. For example, discount rate ranges from the lowest at 10.5 percent in a utility related firm to the highest at 32 percent in technology firms by (Comiskey & Mulford, 2010). However, they explain that these various discount rates seem to reflect the risk differences of these firms (Comiskey & Mulford, 2010). The mean discount rates has increased from 12.22% in 2006 to 12.71% in 2009 and wide range discount rate is shown between the minimum and maximum discount rates, but the increase in the mean and the variety are not statistically significant over the periods (Bepari et al., 2011).

Findings from this study are consistent with these previous results. Sampled New Zealand companies have selected a wide range of discount rates. The majority of discount rates are within 10% to 20% which is an acceptable range compared with previous findings. Some outliers of the discount rates were noted in this study. These outliers are consistent with the risk specific nature of the companies. For instance, one small outlier is a range of discount rate of 8% to 10% selected by Contact (utilities industry). Another small outlier is multiple discount rates of 9% and 10% selected by Fletcher Building (construction industry). Two large outliers of 20% and 30% are selected by Velo which is a NZAX listed company operating in computer system design and office supply industry.

This study found different evidence with Carlin and Finch's (2008 a) study, which shows a wide range of discount rates from 0% to 40%. They show some firms using an aggressively low discount rate. The reason from their extreme finding may be caused by the sample selected in the first year of Australia firms' adoption of IFRS. Based on the sampled 15 companies, there does not appear to be any evidence suggesting a selection of low discount rates to avoid goodwill impairment. A quantitative study addressing this more specifically may reveal otherwise.

#### **4.6.4.2 Non-Disclosure**

Previous studies also raise concern regarding the issue of non-disclosure, for instance, Comiskey and Mulford (2010) found that most of the reviewed firms in their study have not provided any information for the selected discount rates. Carlin and Finch (2008 a) found a high rate of the non-compliance with the basic disclosure requirement among Australia firms in the early adoption year of 2006. Compared with previous findings, this study only found similar non-disclosure in five companies in their early years after adoption of NZ IFRSs. These five companies are Contact Energy, Restaurant Brand, Smartpay, Tower and Velo. Starting from the financial year-end of 2009, all of 15 companies have disclosed selected discount rates.

#### **4.6.4.3 Discount Rate Specific to Each CGU**

A review of 32 UK firms' 2007 accounts by FRRP indicates that not all firms selected discount rates by CGUs, and some firms provided unquantified references to adjustments for risks specific to the relevant market (FRC, 2008). When using compliance and disclosure quality taxonomy to assess firms' practices Carlin and Finch (2008 a) found that most sampled firms used an inappropriate single explicit discount rate. Bepari et al (2011) found that on average 66.6% firms disclosed a single discount rate for all the CGUs from 2006 to 2009; however, these firms have allocated goodwill to more than one CGU.

This study found similar non-compliance as six companies have been reporting single explicit discount rate but are allocating goodwill into more than one CGU in all the post-IFRS years. These companies are Abano, Freightways, Renaissance, Restaurant Brand, Sky City and Velo. Renaissance, Restaurant Brand, Sky City, and Velo have recorded timely goodwill write-offs. This study fails to find similar evidence with the previous research, which argues that management opportunistically, manipulates goodwill impairment testing process by selecting inappropriate single explicit discount rate (Carlin & Finch, 2008 a, 2010 d).

This study is consistent with Bepari et al's (2011) statistical testing results, which found no evidence of opportunistic manipulation by using a single explicit discount rate.

Finally, Contact selected a range of 8% to 10% as a discount rate from 2007 to 2010 regardless of the number of CGUs. Telecom had the same practice in 2007 and 2008. This practice does not necessarily label Contact, Telecom as non-compliant, but financial statement users will have difficulty applying the specific discount rate to each CGU, and they may question the reliability of the range of discount rates selected by these companies.

#### **4.6.4.4 Improved Compliance Level in Selecting Discount Rate**

Bepari et al (2011) found that Australia firms had improved in terms of compliance with the discount rate requirement during 2006 to 2009. They found an increased percentage of applying multiple explicit discount rates and ranges of discount rates. At the same time, they found a declined percentage of firms with non-disclosure. For the 15 sampled companies in this study, Contact, Restaurant Brand, Smartpay, Tower and Velo have improved practice from non-disclosure of discount rate information in early post-IFRS years to disclosure in later years. Fletcher Building and Nuplex had changed single explicit discount rates into multiple explicit discount rates from 2008 and 2009 respectively. Contrasting with these companies, Hellaby Holdings had changed multiple explicit discount rates into simple explicit discount rate from 2009. None of Fletcher Building, Hellaby Holdings and Nuplex has disclosed any information regarding the adjustment of the selected discount rates.

In the case of New Zealand improvements in compliance is mixed a further studies will need to be carried out to determine how widespread this trend is.

#### **4.6.4.5 Relating discount Rates to Write-offs and Non-write-offs**

Theoretically, increasing discount rate will result in a decrease of recoverable amount of a cash-generating unit (CGU). This will increase the chance of recording goodwill impairment and the amount of goodwill impairment. Conversely, a decrease of the discount rate would lead to the recoverable amount of a CGU higher than its book value. As a result, goodwill impairment would not be recognised. The review of Financial

Reporting Review Panel (FRC, 2008) implied that higher discount rates were expected in 2008/2009 due to the reduced economic growth, coupled with higher market prices for the risks. This study found that 14 companies have disclosed steady or increased discount rates through a sample period of 2000 to 2010. Only one company Renaissance disclosed declined discount rates from 16% in 2007 to 14% in 2008 and 13% in 2009. Renaissance has impaired \$0.88 million goodwill in 2009, thus, the reduced discount rate cannot be considered for the purpose of deferring or avoiding goodwill impairment.

A comparison of discount rates between the companies who did not write off goodwill and those who did write off goodwill is completed. Five non-write-off companies are Contact, Freightways, Mainfreight, Sky TV and Tower. The result shows that none of these five companies disclosed significantly lower discount rates than the average discount rates of those write-off companies. The discount rates of non-write-off companies also reflect their specific industry risks. Sky City has been reporting relatively low discount rates (8.6%, 8.7% and 10%) and it has \$54.79 million goodwill write-off in 2008. Management of Sky City may consider a low discount rate as consistent with its unique position within the industry. Velo increased the discount rate from 20% in 2008 to 30% in 2009 without disclosure of this upward adjustment. Velo has \$0.8 million goodwill impairment and a \$0.288 million loss before goodwill impairment in 2009. The reason for this impairment was indicated in the 2009 annual report. It stated that management considered the recoverable amount associated with the goodwill to be nil. Taking all these factors into account, it seems very likely that Velo has exercised “big bath” earnings management in the performance year that was poor by increasing discount rate.

Overall, this study found no evidence of management systematically making upward or downward adjustment of discount rate or applying significant lower discount rates for manipulating goodwill impairment except for the case of Velo. The findings of this study suggest that there may be other reasons for firms preferring single discount rates, such as, lack of clear guidelines from standard setting bodies, and review bodies to identify specific discount rate for each CGU. Other considerations include the lack of experts to complete this task, timing and cost. As pointed by Carlin and Finch (2008 a), inadequate competence or of stubborn unwillingness could be caused by so complex, unwieldy and conceptually challenged standard requirements.

The data set for this study has not allowed these potentially complex issues to be further investigated. A qualitative study specifically interviewing companies may provide further answers. These issues include the method of converting post-tax discount rate to pre-tax rate and accounting risks specific to the assets by either adjusting cash flow or discount rate.

#### **4.6.4.6 Summary of Discount Rate**

From the detailed discussion of discount rate in practice, majority sampled New Zealand companies have exercised an acceptable level of compliance with the standard requirements. The evidence of this acceptable level of compliance includes high disclosure rate of discount rates, modest range of discount rates, steady or slightly increased discount rates through years and of the improved practices in post-IRFS period. Although not all the sampled companies have selected discount rates specific to each CGU, there is no evidence of managers opportunistically using discount rates to manipulate goodwill impairment testing and calculating exercise. Overall, the practices from sampled companies have not compromised the reliability and relevance in goodwill impairment testing and calculating process.

#### **4.6.5 Growth Rate**

Growth rate is another key input parameter used in the value in use method to calculate the recoverable amount of cash-generating unit or units. NZ IAS36 paragraph 33 (c) requires, “estimate cash flow projections beyond the period covered by the most recent budgets/forecasts by extrapolating the projections based on the budgets/forecasts using a steady or declining growth rate for subsequent years, unless an increasing rate can be justified. This growth rate should not exceed the long-term average growth rate for the products, industries, or country or countries in which the entity operates or for the market in which the asset is used, unless a higher rate can be justified (NZICA, 2011b, p. 21).

NZ IAS36 paragraph 36 further requires, “.....if appropriate, the growth rate is zero or



negative” (NZICA, 2011b, p. 22). Previous studies have found several issues related to growth rates used in cash flow forecast by Australia firms from 2006 to 2009 (Carlin & Finch, 2008 a). Firstly, Carlin and Finch (2008 a) found that over 70% firms have failed to disclose growth rate information in 2006 the first year of adopting IFRS. Bepari et al (2011) found that similar non-compliance is still prevalent four years after the adoption of IFRS. They found that from 2006 to 2009 averagely 63.32% (54.24% in 2009) firms failed to disclose the growth rates. Secondly, among the growth rates disclosed, a wide range of growth rates has been applied by firms within industries and across industries. The growth rate varied from 0% to 25% (Carlin & Finch, 2008 a). Bepari et al (2011) show a range of average growth rates in a sample period from 0% to greater than 10%. Thirdly, both studies found that inappropriate single explicit growth rate had been commonly practiced regardless the number of CGUs with goodwill allocated to them (Bepari et al., 2011; Carlin & Finch, 2008 a). Bepari et al (2011) argue that these CGUs should have specific growth rates allocated to them, as they usually are in different operations, due to numerous business combinations. Finally, Bepari et al (2011) also found that growth rates have increased apparently over their sampled years, but the increased adjustment of growth rate is not statistically significant. The percentage of firms who disclose single growth rate has increased. The percentage of firms with non-disclosure and disclosure of range of growth rates have also increased over the years (Bepari et al., 2011).

Several findings of this study show a better compliance level for the sampled 15 New Zealand firms by comparison with previous studies (refer table 8 below). Firstly, only Freightways did not disclose growth rates in all the post-IFRS years. Six companies did not disclose growth rates in some of these years. By the financial year-end of 2010, all these six companies have disclosed growth rates. Secondly, for the disclosed firm-year-end observations of growth rates, the majority is within the range of 0 to 5%. Large outliers are 0-10%, 10% and 7% from Smartpay in 2008, 2009 and 2010 respectively, 7% from Velo in 2010. Obviously, findings from this study do not support previous critics of growth rate disclosed by companies in aspects of low disclosure rate and wide range of growth rate. Thirdly, this study is consistent with previous findings in the issue of using an inappropriate single explicit growth rate. Abano, Hellaby Holdings, Restaurant brand, Sky City, Telecom and Velo have been constantly reporting single growth rates regardless of a number of CGUs greater than one. By the end of 2010, only

five firms of Fletcher Building, Maifreight, Nuplex, Renaissance and Tower had disclosed multiple growth rates.

Linking back to the discount rates disclosed by these five companies, four of them have applied multiple discount rates and multiple growth rates. Only Renaissance has applied a single discount rate and multiple growth rates. This indicates the consistency of complying with different part of standard requirements by these companies. Over years, 11 companies have disclosed a steady growth rate or a slightly increased growth rate. Mainfreight, Smartpay and Telecom have reduced growth rates from 5% to 2%, 10% to 7% and 3% to 0% respectively. These practices show the compliance with the standard and support previous findings. Velo has increased growth rates from 5% in 2009 to 7% in 2010, and the reason for this increase was not disclosed in its annual report. There are increased numbers of firms who have disclosed growth rates and firms who have moved from single growth rates to multiple growth rates.

Table 8: Testing and Calculating goodwill Impairment \_ Growth Rate

Growth rate			
Companies	Years	Growth rate: single/multiple/range/ no disclosure	Amount of growth rate
Abano	2006	s	2%
	2007	s	2%
	2008	s	2%
	2009	s	2%
	2010	s	2%
Contact	2006	no disclosure	no disclosure
	2007	s	2%
	2008	s	2%
	2009	s	1-3%
	2010	s	1-3%
Fletcher Building	2006	s	2%
	2007	s	2%
	2008	m	2%, 1.8-3.8%
	2009	m	2%, 1.5-4%
	2010	m	2%, 2-3%
Freightways	2008	no disclosure	no disclosure
	2009	no disclosure	no disclosure
	2010	no disclosure	no disclosure
Hellaby Holdings	2006	s	3%
	2007	s	3%
	2008	s	3%
	2009	s	3%
	2010	s	3%
Mainfreight	2008	s	5%
	2009	no disclosure	no disclosure
	2010	m	1.9%, 2.1%, 2.1%, 2.2%, 2.5%, 2.5%
Nuplex	2006	no disclosure	no disclosure
	2007	s	0-5%
	2008	no disclosure	no disclosure
	2009	m	1%, 2%, 3%, 0-1.9%, 0-2%, 0-5%
	2010	m	1%, 2%, 3%, 0-1.9%, 0-2%, 0-5%
Renaissance	2007	s	2%
	2008	s	2%
	2009	m	2%, 3%
	2010	m	2%, 2.5%
Restaurant brand	2007	s	2.5%
	2008	s	2.5%
	2009	s	2.5%
	2010	s	2.5%
Sky television	2006	no disclosure	no disclosure
	2007	no disclosure	no disclosure
	2008	no disclosure	no disclosure
	2009	s	1%
	2010	s	1%
Sky city	2006	s	3%
	2007	s	3%
	2008	s	3%
	2009	s	2.5%
	2010	s	2.5%
Smart pay	2006	no disclosure	no disclosure
	2007	no disclosure	no disclosure
	2008	s	0-10%
	2009	s	10%
	2010	s	7%
Telecom	2006	s	3%
	2007	s	3%
	2008	s	0-3%
	2009	s	0%
	2010	s	0%
Tower	2006	no disclosure	no disclosure
	2007	no disclosure	no disclosure
	2008	no disclosure	no disclosure
	2009	s	4%
	2010	m	2.5,4%
Velo	2006	no disclosure	no disclosure
	2007	s	no disclosure
	2008	s	no disclosure
	2009	s	5%
	2010	s	7%

In conclusion, sampled New Zealand firms have shown an acceptable level of compliance with the standard requirement in growth rate used in cash flow forecast. The growth rates disclosure rate is high, range of discount rate is not wide, reasonable trend

of growth rate over years, and compliance level has been increased through years. Although seven firms have been using single growth rates regardless defined number of CGUs being greater than one, this practice cannot be simply interpreted as non-compliance because of the same reasons discussed in discount rate section above, such as weaknesses of standard requirements, difficulties in implementation of these requirements. For a new accounting regime like goodwill impairment testing process, the implementation may take longer than the expectation of standard setters.

#### **4.6.6 Disclosure Issues**

In regard to goodwill impairment testing and calculation process, paragraph 134 & 135 of NZ IAS36 require an entity to disclose extensive information including key assumptions and key estimates used in measuring the recoverable amounts of cash-generating units (NZICA, 2011b, pp. 42,43). To better understand these rather vague requirements, this study refers to detailed comments from the Financial Reporting Review Panel (FRC, 2008) and the empirical study from Bepari et al (2011). The Financial Reporting Review Panel (FRRP) has reviewed December 2007 annual reports of 32 UK entities within the top 350 UK listed companies. The published comment on the quality of goodwill impairment disclosure indicates that companies need to refine their goodwill disclosures so that financial statements users will be able to obtain a much better understanding of companies' goodwill valuation (FRC, 2008).

As discussed in the previous section, all the sampled 15 companies used the value in use method to calculate the recoverable amount of cash-generating units. Referring to the recoverable amount based on value in use method, the disclosure areas in FRRP's review that need to be improved include disclosures by cash-generating units, description of key assumptions, management's approach to determining assumptions, external sources of information, cash flow projections and long-term growth rates, and reporting discount rates. In Bepari et al's (2011) study, total 13 items are used to measure the disclosure and compliance score for goodwill impairment testing and calculating process. Most of these items have been discussed in the above section, such as, allocation goodwill to CGUs, cash flow forecast, discount rate and growth rate. By considering the review of FRC (2008) and Bepari et al's (2011) study results, this study

selects and discusses two disclosure issues including narrative information disclosed and disclosure related to sensitivity analysis.

#### **4.6.6.1 Narrative Information Disclosure**

FRRP's review points out that the disclosures were more generic than specific in nature. Companies use the standardised text or repeating words from the standards to explain the assumption of discount rates selected. This has caused the disclosure is not very informative.

Consistent with the issues raised by FRRP review, this study found lack of narrative disclosure in the determinations of discount rates and growth rates. The use of standardised words abstracted from NZ IAS36 is a common practice and these words are identical through the years. The highlighted words abstracted from some companies' annual reports below are the repeated words from the standards:

- “discount rates reflect management’s estimate of the time value of money and the risks specific to each unit” (Mainfreight, 2008, p. 110;Mainfreight, 2009, p. 86;Mainfreight, 2010, p. 96)
- “management estimates discount rates using post-tax rates that reflect current market assessments of the time value of money and the risks specific to the business (Sky TV, 2006, p. 83;Sky TV, 2007, p. 54;Sky TV, 2009, p. 60)
- “the discount rates are pre-tax and reflect specific risks relating to the relevant operating segment” (Sky City, 2010, p. 27)
- “estimated terminal growth rates do not exceed the long-term average growth rate for the industries in which the business units operate”(Fletcher Building, 2008, p. 68;Fletcher Building, 2010, p. 50)
- “the growth rate does not exceed the long term average growth rate for the sectors in which CGUs operate”(Sky City, 2006, p. 81;Sky City, 2007, p. 107;Sky City, 2008, p. 22;Sky City, 2009, p. 26;Sky City, 2010, p. 26;Hellaby Holding, 2006, p. 47;Hellaby Holding, 2007, p. 45;Hellaby Holding, 2008, p. 55;Hellaby Holding, 2009, p. 56;Hellaby Holding, 2010, p. 57;Abano, 2006, p. 59;Abano, 2007, p. 51;Abano, 2009, p. 43;Abano, 2010, p. 56)
- “growth rates are based on the long-term industry and country averages” (Mainfreight, 2009, p. 86;Mainfreight, 2010, p. 96)

While this may be common practice, it suggests a degree of ‘window dressing’ that paints a picture of compliance but may be far removed from the reality of the company’s financial position and performance.

#### **4.6.6.2 Sensitivity Analysis**

Sensitivity analysis is an important disclosure as Carlin and Finch (2007) argue that, theoretically a sensitivity modelling exercise allows the financial statement users to be able to independently examine the validity of key assumptions and estimates in goodwill impairment procedure. However, NZ IAS36 does not provide detailed requirements for this information disclosure except for general guideline in paragraph 134 & 135 (NZICA, 2011b, pp. 42,43). According to the review of FRRP (FRC, 2008), the informative sensitivity information disclosed by the reviewed companies provide less detail than those required, thus the financial statement users are not able to assess how these reasonably possible changes in assumptions would have resulted in an impairment loss. Carlin and Finch (2007) assess the sensitivity test on key management assumptions provided by the top 20 Australia companies by market capitalisation in 2006, and they found that only five out of 20 companies have disclosed sufficient data to allow simple sensitivity test on key management assumptions. However, this situation has changed for Australia companies in later years. Bepari et al (2011) found that from 2006 to 2009, among the firms using value in use method, 334 out of 758 firms have disclosed information relating to sensitivity to key estimates. They also found an increased number of firms’ disclosing this information from 2006 to 2009, especially, a dramatic increase from 54 firms in 2007 to 102 firms in 2008.

Similar with previous studies, this study found a low disclosure rate of sensitivity analysis but an increased trend of companies’ providing this information during their post-IFRS years. From 2000 to 2010 year-end, seven sampled firms have constantly not disclosed sensitivity analysis of key assumptions. From table 9 below, among eight firms with disclosure of sensitivity analysis, two of them (Mainfreight and Restaurant Brand) have constant disclosure through all the post-IFRS years, while the other six companies started to disclose this information from some years after the adoption of NZ

IFRS. According to the sensitivity analysis disclosure by these eight firms, the possible changes of the key assumptions are in the areas of discount rates, growth rates, sales forecast, earnings and cash flow forecast and so on. From the detailed sensitivity information disclosed by Restaurant Brand, goodwill impairment loss could be significant influenced by the validity of key assumptions and estimates in goodwill impairment testing procedure (Carlin et al., 2007). In Restaurant Brand Annual Report 2008, they write:

“A one percent decrease in terminal year sales growth would increase the impairment by \$4.1 million. A one percent increase in the discount rate would increase the impairment by \$4.2 million” (Restaurant Brands New Zealand Limited, 2008, p. 49)

Table 9: Testing and Calculating goodwill Impairment \_ Disclosure issues

Sensitivity analysis		
Companies	Years	Sensitivity analysis
Abano	2006	no disclosure
	2007	no disclosure
	2008	no disclosure
	2009	no disclosure
	2010	no disclosure
Contact	2006	no disclosure
	2007	no disclosure
	2008	no disclosure
	2009	no disclosure
	2010	no disclosure
Fletcher Building	2006	no disclosure
	2007	no disclosure
	2008	y
	2009	y
	2010	y
Freightways	2008	no disclosure
	2009	no disclosure
	2010	y
Hellaby Holdings	2006	no disclosure
	2007	no disclosure
	2008	no disclosure
	2009	no disclosure
	2010	no disclosure
Mainfreight	2008	y
	2009	y
	2010	y
Nuplex	2006	no disclosure
	2007	no disclosure
	2008	y
	2009	y
	2010	y
Renaissance	2007	no disclosure
	2008	no disclosure
	2009	no disclosure
	2010	no disclosure
Restaurant brand	2007	y
	2008	y
	2009	y
	2010	y
Sky television	2006	no disclosure
	2007	no disclosure
	2008	no disclosure
	2009	no disclosure
	2010	y
Sky city	2006	no disclosure
	2007	no disclosure
	2008	no disclosure
	2009	no disclosure
	2010	no disclosure
Smart pay	2006	no disclosure
	2007	no disclosure
	2008	no disclosure
	2009	y
	2010	y
Telecom	2006	no disclosure
	2007	y
	2008	y
	2009	no disclosure
	2010	no disclosure
Tower	2006	no disclosure
	2007	no disclosure
	2008	no disclosure
	2009	no disclosure
	2010	no disclosure
Velo	2006	no disclosure
	2007	y
	2008	y
	2009	y
	2010	y



Collectively, two disclosure issues, related to lack of narrative disclosure of key assumptions and non-disclosure of sensitivity analysis, have been addresses in this section. The results support the suggestion to improve these issues according to the review of FRRP. This study also found a similar increased trend with Bepari et al's (2011) study in the area of disclosing sensitivity analysis through the post-IFRS years. Bepari et al (2011) argue that, due to the nature of inherent subjectivity and non-verifiability of a goodwill impairment testing process, managers may find difficulties and trade off in complying with the extensive disclosure requirements under the standard. This study also considers this argument as a possible reason for the insufficient disclosure. However, this is not an appropriate reason for non-disclosure. Financial statements users need to assess these disclosures to better understand management's decisions and companies' performance. Another possible reason for no comprehensive disclosure could be the non-materiality of reported impairment loss as stated by FRRP review (FRC, 2008). Again, this reason seems not convincing according to the findings of this study. As discussed in theme four, ten companies have reported 18 goodwill impairment losses from 2006 to 2010. The total amount of these losses is measured as \$992.58 million and this amount counts to 19% of total earnings before goodwill impairment for all the 18 companies from 2006 to 2010. The range of these losses is from a minimum amount of \$0.419 million from Smartpay in 2009 to a maximum amount of \$778 million from Telecom in 2006. Among these write-offs, 12 out of 18 are over one million and 5 out of 18 are over \$10 million. Based on these numbers, it seems that impairment losses are material in their real money value and in percentage of earnings before goodwill impairment. Therefore, the insufficient disclosure issue of sampled New Zealand firms cannot be explained by the non-materiality as proposed by FRRP.

In order to value the reliability and relevance of managers' assumptions and estimates used in goodwill impairment testing and calculation process, financial statement users need sufficient disclosure since this process is so subjective and unverifiable. This study suggests that the standard setters should provide clear requirements and further enforcement since these disclosures are so essential and sensitive, especially for the case of sensitivity analysis.

#### **4.6.7 Summary of Theme Five**

In conclusion, theme five provides an overall pattern practiced by 15 sampled New Zealand companies, which is compliance of goodwill impairment testing and calculating procedure is in an acceptable level. The selection of key estimates used in value in use method, including number of cash-generating units, cash flow forecasting period, discount rate and growth rate does not provide evidence of managers' opportunistic manipulation of these estimates. However, further enforcement and monitoring should be considered for the issues of informative disclosure of key assumptions and disclosure of sensitivity analysis, in order to preserve the reliability and relevance of goodwill accounting information.

### **4.7 Conclusion**

This chapter discusses the goodwill recognition, measurement and disclosure practices of 15 NZ companies based on five main themes. The first theme is that goodwill intensity of most sampled NZ companies is high in comparison with previous findings, which could be caused by several factors including extensive business combinations, vague standard requirements in goodwill definition and goodwill components, adjustments and changes, some goodwill components with definite useful life. The second theme is the conservative accounting practices under previous amortisation requirement due to short amortization period and a number of additional goodwill write-offs above systematic amortisation. This finding suggests that at least some components of goodwill have shorter economic lives and by no means indefinite. The third theme is that companies are able to opportunistically eliminate goodwill in transition period through impairment irrespective of the impairment test guidelines offered in the standard although this is not a common practice in sampled NZ companies. The fourth theme is that sampled NZ companies have practiced timely write-offs of overpaid price for goodwill with the indicators of high figure of goodwill percentage in total assets and the deterioration of the subsidiaries' performance. The fifth theme is that current compliance level with impairment testing in the selection of cash-generating units, cash flow forecasting period, discount rate and growth rate is acceptable; however, companies need to improve informative disclosure of key assumptions and disclosure of sensitivity analysis.

## **Chapter 5      Conclusions**

### **5.1 Summary and Conclusion**

This study investigates and analyses the goodwill accounting practices of 15 New Zealand listed companies from financial year 2000 to 2010 that show significant levels of goodwill on their balance sheets. The focus of this study is on the following issues, the initial recognised goodwill components in business acquisitions, movements and adjustments of goodwill through years, subsequent goodwill write-off by the ways of amortisation pre NZ IFRS adoption and impairment post NZ IFRS adoption, indicators of goodwill impairment, goodwill impairment testing procedures and related disclosure issues of key estimates. These discussions are framed within the context of relevance and reliability of goodwill accounting information on the financial statements.

In this study, goodwill is limited to goodwill acquired in business combination, which cannot be not individually identified and separately recognised and represents future synergy and going concern economic benefits. Debates surrounding goodwill accounting have been centered on the following issues: initial recognised components of goodwill, subsequent measurement of goodwill by previous amortisation method before adoption of SFAS 142 in 2001 and IFRS 36 in 2004, goodwill write-offs during transition period, and current goodwill impairment testing process and the disclosure of key assumption in impairment testing.

Previous research found that some initially recognised goodwill components have little continuing value (Henning et al, 2000). Henning et al' (2000) also found a wide variation of goodwill amortisation periods, large amount of write-offs in short amortisation period and significant goodwill write-offs above fixed period amortisation. For the practices during transition from systematic amortisation of goodwill to period impairment testing, firms have tendencies to either accelerate goodwill impairment during transition years in order to minimize future write-offs (Wiese, 2005; Cheng, 2008), or not to take write-offs in the transition period even though they were expected to take write off (Guler, 2007). Debates regarding goodwill impairment testing in post

IFRSs and SFASs period are mainly in three areas: indicators of impairment testing, management incentives in impairment testing, and compliance level of impairment testing requirements. Other studies found some incentives commonly used by managers to opportunistically manipulate goodwill impairment. Recent studies examine the quality of goodwill impairment testing and calculating process in the post adoption of IFRS years and they found the existence of no effective disclosure and certain level of non-compliance with the standard requirements. All the above studies have indirectly tested the reliability and relevance of goodwill accounting information. Other studies have applied a direct method to test the impact of the goodwill balance and goodwill impairment, reported in financial statements, on market valuation of firm equity and the information content for investors.

The research discussed above mainly reveal the negative effect of current goodwill impairment regime by either focusing on few aspects or covering a short period of initial implementation of International Accounting Standards 36 (IAS36) and Statement of Financial Accounting Standards 142 (SFAS 142). As mentioned in chapter one, accounting treatment for goodwill measurement has experienced four stages including rapid expensing method, write-off against equity, systematic write-off over a fixed period and periodic impairment testing. The debate over whether or not goodwill impairment testing procedure is the most appropriate subsequent measurement method, highlights that researchers need to consider a long period covering pre and post IFRSs and SFASs and various issues. These issues include initial recognised goodwill, disclosure of goodwill acquired in business combination and goodwill impairment, previous amortisation measurement method, treatment in transition period, and compliance with standard requirements in post IFRSs and SFASs period. Findings from a short period or regarding few issues may not be convincing to conclude the overall quality of goodwill accounting information. There is a need to assess the reliability and relevance of goodwill current accounting regime by investigating the overall accounting treatment for goodwill from the initial recognition process to the implementation of current impairment regime stage. Moreover, the lack of consensus, as evidenced by the ongoing debate in the extant literature, suggests a need for future research and empirical evidence to guide the development of accounting standards.

This study employs a constructivist/interpretative paradigm and a thematic analysis to

explore a wide range of goodwill accounting information from 15 sampled NZX listed companies. These research methodologies are able to analyse rich data and summarise clear themes, therefore address the research question as of the reliability and relevance of goodwill and goodwill impairment accounting information.

Based on the practices of companies included in this study, recognised goodwill has been significantly written off both pre and post NZ IFRS adoption. Furthermore the relatively short timeframe over which it was amortised supported the view that goodwill compromised the objectivity of the financial statements and therefore should be removed.

It has been suggested that goodwill impairment regime provides a potential vehicle to be used by management to manipulate accounting information and manage earnings. There is little evidence in this study to support this notion and the impairment costs recognised in the accounts appear to align with the recent poor performance of the group or acquired division.

The prohibition of goodwill amortisation in favor of impairment testing reduced the pathway for adjusting goodwill to a single method. Post IFRS, the sampled New Zealand companies appears to aggressively impair the amount of goodwill capitalised following a business acquisition. In some cases the amount of the impairment was greater than had it been amortised. Companies, who are not in favor of carrying a goodwill amount in their balance sheets, may use the impairment process as a vehicle to systematically reduce it and thereby restoring the objectivity and reliability to the financial statements. The case to support this level of amortisation however appeared to be justified given the recent poor performance of the acquired company. The appropriateness of this level of impairment continues to be a matter of professional judgment. Whether amortised or impaired, the relatively short period over which goodwill was written out of the books supports the notion that at least some components of recognised goodwill do not have a finite useful life, all be it difficult to determine what this useful life may be. Compared with previous amortization method, current goodwill impairment testing regime is a better reflection of the economic benefit of goodwill provided managers do not opportunistically perform the testing procedure in terms of appropriately assessing indications of impairment and selecting and disclosing key estimates.

Overall the level of compliance by the companies included in this study is acceptable and within the interpretation of the accounting standards. In particular, the manner in which they have defined their cash generating units and the manner in which the impair loss is calculated. Furthermore, goodwill write-offs in post NZ IRFSs period show a timely reflection between the economic value of goodwill and the deterioration of acquired entities' performance.

The accounting standard governing the accounting for goodwill is far from precise and allows a significant level of flexibility and reliance on professional judgement. The findings from this study indicates that the implementation of goodwill impairment measurement process is subjective, and involves a number of key drivers and estimates including; the synergy benefit from the acquired company, subsequent performance of the acquired company, professional judgement afforded to the company's management, and the expectation of the synergy settlement period. This study finds significant variations in the way in which companies calculate impairment. Even more significant is the non-disclosure of the variables used in the calculation. Significant variations were noted in terms of the cash flow forecast, discount rate and growth rate. This has made it difficult for the investors to judge the volatility in earnings and risk and return through the practices of the timing of goodwill impairment. The subjective nature and accounting practice regarding goodwill, as demonstrated by the companies included in this study suggest a compromise of the relevance and reliability of the financial statements. Ongoing monitoring of these practices with a view encouraging greater consistency between companies will help to maintain the relevance and reliability of the accounting statements.

Overall, the practices of sampled companies show that the reliability and relevance of goodwill accounting treatment have been preserved to an acceptable level under current goodwill impairment testing regime. However, financial statements users will benefit from clear and detailed standard requirements of goodwill accounting treatment.

## **5.2 Contributions**

This study contributes to the debate on goodwill accounting in the following areas. Firstly, this study extends the prior empirical studies on the goodwill accounting by investigating a broad range of data and providing new evidence from a New Zealand context. In particular, it provides a logical and timely extension to similar studies in Australia and New Zealand. Secondly, this study covers both pre-IFRS and post-IFRS periods from 2000 to 2010. The time period allows for a greater discussion of the potential motivations for goodwill accounting practice beyond an analysis of compliance post IFRS adoption. Thirdly, this study provides some suggestions for financial statement users in terms of the reliability and relevance of the financial statements. Lastly, this study indicates the weaknesses of current accounting standards in regulating goodwill impairment testing and calculating and provides further evidence to guide future improvements. This study supports the argument from Gill (2008), that the method of expensing goodwill should not be criticised, rather the inappropriate or excessive capitalization should be challenged. If accounting standard setters strengthen the regulation on the recognition of acquired goodwill, the subsequent write-off of goodwill will provide more relevant and reliable information under either systematic amortisation method or periodic impairment method. This study also challenges the recent movement of goodwill impairment testing regulation by FASB. As mentioned in introduction chapter, FASB has introduced new requirement of qualitative assessment of the fair value of companies' reporting units, and then companies can decide whether or not to perform the second step of goodwill impairment testing (FASB, 2010). This study shows that subsidiary performance is closely related with goodwill write-offs after the acquisitions, therefore, assessing qualitative factors of the reporting units may comprise goodwill impairment testing.

## **5.3 Limitations**

This is an exploratory study and its limitations are related to the methodology and research design. The first limitation is the small sample size. This limitation is interrelated with the qualitative methodology applied, thus this research is not intended

to produce statistical generalisation to which a quantitative research usually aims. Another weakness related with this limitation is that comparison across industries is not available. Comparison of goodwill intensity, discount rate and growth rate across industries would likely to provide meaningful explanation for the practices of determining goodwill impairment in the post-IFRS years and calculating the impairment amount. The second limitation is interpreting qualitative research findings by comparing findings from numerous quantitative researches. It is meaningless to measure and comment the practices of sampled 15 NZ firms by using statistical results from previous studies which usually contain large sample sizes and progressive correlations. The last limitation is the data source solely draws on companies' annual report which provides limited and possibly biased information as discussed in chapter 3 methodology and theorisation.

## **5.4 Recommendations**

This research goes some way to filling the gap in the literatures for a broad and exploratory investigation of the reliability and relevance of goodwill reporting and goodwill impairment testing and calculating process. However, the small sample size combined with the numerous issues covered make a single study addressing such a broad research question difficult. This study provides some opportunities for further research, such as, further research may be focusing on one or a few specific aspects of findings from this study, or apply the approach used here to goodwill practices in other countries. More importantly, this study shows the advantage of combining quantitative and qualitative research methodology to investigate a comprehensive issue such as compliance or non-compliance with the accounting standard requirements.

Although it had not been the primary focus of the current study, goodwill intensity (GW%) for New Zealand companies do not mirror those found in overseas studies in terms of industry. This raises the opportunity for future studies in this area using a larger sample.



## **Glossary**

CGU	Cash-generating Unit
FASB	Financial Accounting Standards Board
FERF	Financial Executives Research Foundation
FRC	Financial Reporting Council
FRRP	Financial Reporting Review Panel
GW%	Percentage of Goodwill to Purchase Price
IASB	International Accounting Standards Board
IFRS	International Financial Reporting Standards
NZ IAS36	New Zealand Equivalents to IAS36
NZ IAS38	New Zealand Equivalents to IAS38
NZ IFRS3	New Zealand Equivalents to IFRS3
SFAS	Statement of Financial Accounting Standards

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## Appendix A: Sample Selection

Sample Selection	
	Number of Companies
<b>Base Sample:</b>	140
(data sourced from NZX and NZ Deep Archive, Fiscal 2000-2010)	
<b>Elimination:</b>	
Companies with annual reports not available and without goodwill on balance sheets	103
Overseas listed companies	7
companies without sufficient information related to goodwill	11
Companies with small turnovers in their industries at 2010 financial year-end	4
<b>Final sample</b>	<b>15</b>

## Appendix B: First Years of Adoption IFRS

<b>Adoption Years</b>	
<b>Company Names</b>	<b>First financial Year after Adoption of IFRS</b>
Abano Healthcare Group Limited	2006
Contact Energy Limited	2006
Fletcher Building Limited	2006
Freightways Limited	2008
Hellaby Holdings Limited	2006
Mainfreight Limited	2008
Nuplex Industries Limited	2006
Renaissance Corporation Limited	2007
Restaurant Brands New Zealand Limited	2007
Sky Network Television Limited	2006
SKYCITY Entertainment Group Limited	2006
Smartpay Limited	2006
Telecom Corporation of New Zealand Limited	2006
Tower Limited	2006
Velo Capital Limited (former Media Technology)	2006



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<sup>i</sup>Voluntary adoption of IFRS in New Zealand was permitted from 2005. Mandatory adoption by other non-exempt companies followed in January 2007.