

## CHAPTER ONE: INTRODUCTION

### 1.1 Introduction

Goodwill and the standards that regulate its measurement and reporting are commonly regarded as some of the most controversial aspects of financial reporting. One reason for this has been the diversity of practice in relation to goodwill accounting and reporting, both within and across jurisdictions. Today, goodwill has increased in importance the world over; the asset composition of companies has changed in the last few decades, and goodwill constitutes a significant proportion of assets for numerous companies (Jensen & Ruback, 1983; Chen *et al.*, 2004). This is due to an increase in the number and value of mergers and acquisitions, which in Malaysia has doubled since 2006 (PWC-Alert, 2007). As a consequence, and because it has a greater impact on financial statements, there has been an increasing need for a more relevant approach for addressing goodwill that reflects the value of the firm.

The introduction of the International Financial Reporting Standards (IFRS) in many countries around the world is one of the most significant regulatory changes in accounting history. The IFRS is aimed at increasing the quality and consistency of reporting standards. They are increasingly being viewed as a set of high-quality accounting standards that ideally would apply equally to financial reporting by public companies worldwide. The potential benefits from the use of one common set of accounting standards include increased comparability of financial statements and improved transparency that leads to more efficient investment decisions and restoring investor confidence in publicly traded companies (Hodgdon *et al.*, 2009).

Malaysia adopted the IFRS regime in 2006, and from 1 January of that year Malaysian companies were required to implement all the Financial Reporting Standards (FRS<sup>1</sup>) issued by the Malaysian Accounting Standards Board (MASB) in the preparation and presentation of financial statements. Goodwill impairment testing is now prescribed in Malaysia's FRS 136 – *Impairment of Assets* (FRS 136), and the new accounting treatment represents one of the biggest challenges to Malaysian reporting entities as no such standard existed pre-IFRS adoption.

Before the achievement of this significant milestone three approaches to goodwill reporting were commonly used in Malaysia. First, goodwill was capitalised as a permanent item but subject to periodic review for write-down purposes.<sup>2</sup> Second, goodwill was capitalised and subject to systematic amortisation against profit and loss<sup>3</sup>, and third, goodwill was immediately written-off against reserves.<sup>4</sup> The highly prescriptive and technical provisions of FRS 136 therefore represent a substantial variation from past practice. Recent empirical evidence on Malaysian listed companies and auditors reveals that the rate of compliance with the provisions of FRS 136 has been very poor and in some specific instances, extremely unusual patterns were evident in company-level data disclosures (Carlin *et al.*, 2009a; Carlin *et al.*, 2009b). Studies in

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1 Malaysian Accounting Standards Board standards (MASBs) are now called FRS. In 2005, the MASB renamed and renumbered the MASBs as FRS and the numbers coincide closely with the numbering of International Accounting Standards and IFRS.

2 In contrast to the requirements of the IFRS framework however, there was no prescription in relation to the timing or frequency of valuation reviews, or in relation to the methodologies to be employed as the foundation for such reviews or disclosures in relation to key assumptions used in the review process.

3 Goodwill is an on-going asset that in principle is no different from any other asset. Thus, acquired goodwill is recognised as an asset and amortised over the period that will benefit from its acquisition, and this is in line with the accruals concept (Seetharaman *et al.*, 2004). However, some argue that amortisation is arbitrary and distorts net income (Spacek, 1963) (Spacek, 1963).

4 This is in line with the prudence concept (Vance, 2006). Advocates argue that goodwill poses difficulties and carrying the asset in the balance sheet is of little value to users of accounts. Yet writing off goodwill immediately can lead to distorted results as goodwill tends to be overstated (Johnson, 1993).

other jurisdictions including Australia, Singapore and Hong Kong have reported a low rate of compliance with regard to the new goodwill impairment regime (Carlin & Finch, 2010; Carlin *et al.*, 2010a; Carlin *et al.*, 2010b).

Given the empirical evidence of the implementation of the new goodwill impairment testing across other jurisdictions, it is important to raise questions about the extent to which Malaysian companies and their auditors have fared during the process of transition to FRS 136 and how this has impacted upon the quality and consistency of reports produced pursuant to that new regime. Thus, this thesis examines the disclosure practice based on the requirement of FRS 136 by a large sample of Malaysian listed companies. The focus is specifically on, first, the compliance level of audited consolidated financial accounts and the quality of disclosures provided in accordance with that standard. Second, by looking at the disclosure requirements of FRS 136 as a proxy for audit quality, the research investigates whether there is a variation in audit quality among the sample of Big 4 audit firms (the Big 4) pursuant to the new goodwill Standard.

## **1.2 An Assessment of Compliance Levels and Disclosure Quality**

The adoption of IFRS in Malaysia has not changed all aspects of financial accounting and reporting. However, with regard to goodwill, the new accounting treatment represents one of the biggest challenges to Malaysian reporting entities, as it requires more rigorous techniques, disclosure of goodwill impairment testing and significantly expanded disclosure requirements. FRS 136 introduced a formal requirement that goodwill acquired in a business combination could no longer be amortised but would be tested for impairment annually or whenever events

or circumstances indicate its value may have been impaired.<sup>5</sup> Pursuant to this new treatment, the carrying amount of goodwill must be written down to the extent of any impairment and the impairment loss recognised in the calculation of profit.<sup>6</sup> The highly prescriptive disclosure requirements pertaining to the nature of goodwill impairment testing processes undertaken by reporting entities provides far greater transparency (Sevin *et al.*, 2007).

Advocates of the IFRS-based approach to goodwill reporting point to a range of putative benefits associated with the adoption of an impairment testing-led approach to goodwill accounting and reporting, including evidence of the improved value relevance of impairment losses compared to annual amortisation charges (Li & Meeks, 2006). The new impairment testing also promotes transparency, because the valuation of goodwill reflects the underlying economic or business conditions as a result of the reporting which is based on current events that affect the business (Moehrle & Reynolds-Moehrle, 2001). Thus, it should provide users with a better understanding of the expectations and changes in the assets over time, therefore improving their ability to assess future growth and future earnings (Jerman & Manzin, 2008) (Jerman & Manzin, 2008). However, the valuation of goodwill impairment is not easy and indeed, impairment testing has been categorised as one of the five most difficult challenges arising from the transition to IFRS (Hoogendoorn, 2006). Testing goodwill for impairment is a complex process; the new Standard on goodwill requires more rigorous techniques and there is a higher degree of complexity in relation to conceptualising, measuring and reporting on goodwill. In addition, FRS 136 calls for the disclosure of a range of factors which organisations

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5 Paragraph 9 of FRS 136.

6 Paragraph 60 of FRS 136.

may view as sensitive, including projected growth rates and the provision of a segmented perspective on company risk characteristics.

The new accounting treatment for goodwill is filled with subjectivity and ambiguity for financial report preparers and auditors alike. In the absence of adequate audit and regulatory oversight, the complexity of the FRS 136 regime, together with the frequency with which its application calls for the exercise of discretion and judgment, may conspire to result in the production of information of a lower quality, and this is of concern to accounting scholars. Focusing on the disclosure requirement pursuant to FRS 136, this thesis specifically examines the level of compliance with a variety of the provisions of FRS 136 and assesses the quality of disclosures provided in accordance with the new accounting standard.

The sample drawn upon in this thesis comprises 275 companies in 2006 and 490 companies in 2007 which reported goodwill as an element of their asset base in their 2006 and 2007 consolidated financial statements with fiscal years ending 31 December. (The 2006 and 2007 financial years were the first two years in which financial statements were prepared in accordance with the requirements of IFRS by Malaysian listed companies.) Based on a two-tiered comparative/evaluative method, the research documents that the level of non-compliance is high, with more than 50% of the sample companies in both years making no disclosure in their consolidated financial statements of the requirement with regard to FRS 136. Moreover, highly specific disclosures produced by the sample of companies in both years were strikingly rare, with evidence of unusually low discount rates and unusually high growth rates used in the impairment testing process.

The research then goes on to examine the central material factor impacting the valuation model – discount rate. In the goodwill impairment testing process conducted under IFRS, there is a strong dependence on discounted cash flow modelling, and the judgment exercised by reporting entities regarding discount rate selection is important in influencing the outcomes of the impairment testing process. The discount rates disclosed by large Malaysian companies are compared with independently generated discount rates. A sub-sample of 66 companies in 2006 and 177 companies in 2007 that employed the value in use (VIU) approach to goodwill impairment testing and defined only one discount rate was analysed using the Capital Assets Pricing Model (CAPM) and goodwill intensity. The results show that more than 70% of the sub-sample in both years understated discount rate, which indicates a bias among Malaysian companies towards the application of lower than expected discount rates.

Taking into account the results stated above, the adoption of new and complex reporting frameworks could affect the preparation and presentation of financial statements and challenge the capability of financial statement preparers and auditors. The application of FRS 136 was mandatory for all companies included in the research sample and subject to audit by the Big 4. Yet the majority of companies failed to comply with even the basic requirement of the new goodwill Standard. This raised a question regarding the quality of audit provided by the Big 4 in ensuring companies comply with the requirement of the new Standard. Thus, the next sub-section will briefly discuss the analysis of audit quality among the Big 4.

### 1.3 An Assessment of Audit Quality among Big 4 Auditors

Audit quality can be defined as a) the probability that an error or irregularity is detected (DeAngelo, 1981); and b) the willingness to report any material manipulation or misstatements that will increase the material uncertainties and/or going concern problems (Bradshaw *et al.*, 2001). The first element relates to the technical competence of the auditor and the second to the degree of independence exercised by an auditor (Caneghem, 2004). In other words, audit quality can be defined as relating to the probability that financial statements contain no material omissions or misstatements. From the definitions above, audit quality provided by auditors plays an important role in assuring the production and issue of high-quality financial reports.

The positive relationship between audit firm size and audit quality has been well documented in previous studies. It is a long-held view that large audit firms provide higher quality audits and offer greater credibility to clients' financial statements than small audit firms (Lennox, 1999). This argument stems not just from the technical expertise and processes brought to bear by larger audit firms, but also because large audit firms enjoy better reputations, have higher brand equity and are likely to be highly motivated to protect these (DeAngelo, 1981). In addition, larger audit firms have generally been considered more independent of their clients (Dopuch, 1984). The extant literature on the subject shows that larger audit firms do indeed provide higher quality audit services, and the quality of audit services provided by large audit firms has been assumed to be or treated as homogenous.

The question of whether large audit firms effectively play a role in ensuring credible accounting information has received episodic attention over time. The spate of collapses in the

early years of this century, exemplified by the Enron bankruptcy in 2001 and the related collapse of Arthur Andersen in 2002, triggered a bout of criticism of large audit firms, their processes and the quality of the audits being performed by them (Francis, 2004). These criticisms were particularly jarring given the traditional perceptions of the high quality of audits performed by large firms (Lam & Chang, 1994). Recently, a small number of studies have begun to investigate the question of audit quality by examining the possibility of quality differentials between large audit firms, rather than assuming that the problem is homogenous.

Thus, this dissertation focuses on evidence relating to the quality of financial statement audits in the context of the transition to a new, complex regime. Specifically, the degree of technical compliance with the disclosure requirements of FRS 136 by a sample of large Malaysian listed companies is used as a proxy for audit quality. The adoption of the new and revised FRS, modelled tightly on IFRS (though with some variations applicable in the transition phase) by Malaysian companies, presents an interesting opportunity for research into the impact of expertise disruption on audit quality.

FRS 136 presents great challenges for auditors of financial reports. In particular, a number of the new internationally compliant standards are substantially more complex in their configuration, in the nature and structure of reporting processes and disclosures that they require, and consequently on the demands associated with the production of audit services under their aegis.

Six analytical structures are used to distinguish audit quality between the Big 4 and to question the homogeneity of audit quality assumptions. The audited disclosures made during the two-year transition period under FRS 136 by a sample of large Malaysian listed corporations



who had engaged Big 4 auditors are examined. From a sub-sample of 173 companies in 2006 and 309 companies in 2007 more than 60% of the companies in both years were audited by the Big 4. There was found to be no credible evidence in the dataset of meaningful variation in compliance levels or disclosure quality among the clients of the Big 4. Indeed, more than 40% of the sample of companies in both years reported poor compliance even though all of the reports from which data was drawn, and upon which the analysis was constructed, had been subject to audit by 'big brand' international franchises. The lack of credible evidence suggests a more worrying phenomenon, a systemic failure on the part of ostensibly highly professional and reputable audit franchises to combat what can at best be described as a loose application of the rules by reporting entities.

## **1.4 Contribution**

This dissertation contributes to the accounting literature in the following ways. First, it is one of the first studies that examine compliance levels and disclosure quality pertaining to the introduction of FRS 136 for companies listed in Bursa Malaysia. The adoption of the new IFRS reporting regime around the world is one of the most important policy issues in financial accounting, and this dissertation provides strong evidence of low compliance levels reported by such companies. The findings will be of interest to practitioners in accounting standard setting and regulation as the issue of compliance continues to be a controversial issue and the extent to which accounting standards are complied with is as important as the standards themselves.

Second, the thesis compares discount rates disclosed by a sample of large Malaysian companies with independently generated discount rates in the two years of transition to the

new reporting regime. The discount rate selection is important as it represents a centrally material factor impacting the valuation of goodwill impairment testing.

Third, this dissertation contributes to recent literature on the impact of IFRS on audit quality by scrutinising the audited disclosures made during the transition period under FRS 136. The audit quality of the Big 4 is examined and the homogenous audit quality assumption is questioned. The thesis provides evidence that there is no variation among Big 4 audit clients in complying with the requirement pursuant to the new goodwill impairment testing regime. The evidence set out in this empirical study can therefore be seen as contributing to the literature by providing at least a preliminary case for the proposition that audit quality among the Big 4 is homogenous, as has so often been assumed in previous studies. This result is important since the auditors' role is to encourage compliance with IFRS and to produce high-quality enforceable global standards.

## **1.5 Research Focus and Structure of the Dissertation**

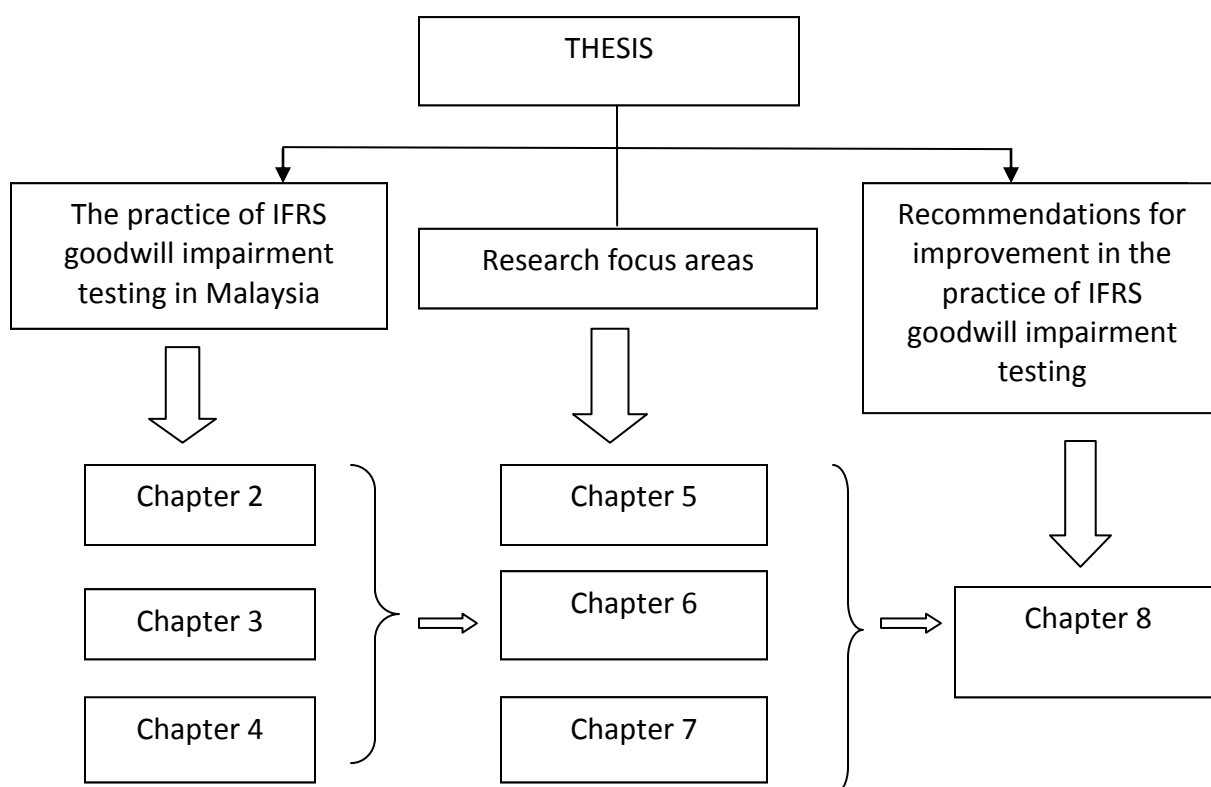
The research reported in this dissertation was undertaken to achieve the following objectives:

1. To assess the level of compliance with a variety of the provisions under FRS 136 and the quality of disclosure pertaining to the high-risk issue of goodwill impairment testing made by a sample of large Malaysian listed companies in the two years of FRS-based reporting.

2. To understand the selection of discount rates disclosed in the impairment testing process by a sample of large Malaysian listed companies and compare it with independently generated discount rates.
3. To examine the degree of and variances in technical compliance with the disclosure requirements of FRS 136 as a proxy of audit quality among Big 4 audit firm clients in Malaysia, and to question the assumption of homogeneity surrounding audit quality.

These research foci are thematic rather than technical in nature. In order to obtain the results it has been necessary to pose a series of more detailed, technical questions, which are identified and discussed in Chapter 4 (Research Method), and in the chapters of technical review and empirical analysis (Chapters 5 through 7). The structure of the dissertation as a whole is set out in Figure 1.1.

**Figure 1.1 Structure of the Dissertation**



The remainder of this dissertation proceeds as follows. Chapter 2 focuses on previous studies in accounting for goodwill. The history of the legal conceptualisation of goodwill and the chronology of goodwill reporting practice in Malaysia up to the present practice of impairment testing under the IFRS framework of FRS 136 are discussed. Related issues on goodwill and the implication of the new IFRS goodwill impairment testing and prior literature related to audit quality are also examined.

Chapter 3 explains the requirements of accounting standards pursuant to FRS 136. It reviews the main requirements of the new goodwill accounting and specifies the selection of related paragraphs, which are used as a component of this dissertation.

Chapter 4 describes the research method employed in each empirical study. This includes the data selection procedure for large listed companies in Bursa Malaysia that recorded goodwill in 2006 and 2007; data collection, obtained by reviewing and analysing the 2006 and 2007 annual reports; research design; analysis of compliance or non-compliance with the requirement of specific aspects of the standard; the taxonomies used to catalogue and describe the results; and the method employed in the empirical studies.

Chapters 5, 6 and 7 describe the three research areas and explore the extent to which the practice of goodwill impairment testing in Malaysia complies with FRS 136, Chapter 5 focuses specifically on compliance levels and disclosure quality relating to the highly detailed requirements set out in FRS 136 among 275 companies in 2006 and 490 companies in 2007. A brief introduction on compliance with the new financial reporting standard is followed by a review of related literature on goodwill issues in the adoption years of IFRS. The chapter

describes the research design and discusses the empirical results, and concludes with some implications for practice.

Chapter 6 further explores compliance levels and disclosure quality by focusing on the central role that discount rates play within the impairment testing process. The selection of discount rates by a sub-sample of large Malaysian companies in testing goodwill impairment is examined and compared with independently generated discount rates. This empirical chapter commences with a brief introduction to the study and an overview of the technical context of the research. It provides details of the data and the method employed, gives an overview and discussion of the key results, and offers some conclusions and implications for practice.

Chapter 7 examines the quality of disclosures pertaining to the high-risk issue of goodwill impairment testing as a proxy of audit quality made by a sub-sample of large Malaysian listed companies engaged with the Big 4 in the first two years after their transition to IFRS. It commences with a brief introduction to the issues surrounding audit quality, and a brief review of some pertinent prior research literature on audit quality. The sample selection procedure is identified, and is followed by a discussion of the key results of the research.

Finally, chapter 8 synthesises the empirical results reported in Chapters 5 through 7, and offers some suggestions as to areas for fruitful future research.

## CHAPTER 2: LITERATURE REVIEW

### 2.1 Introduction

The issue of accounting for goodwill has been seriously debated by both academic and practising accountants over the past decades in Malaysia and internationally. The main problem stems from the lack of agreement in defining the real nature of goodwill and the appropriate method of accounting for goodwill, both within and across jurisdictions. This chapter commences with a history of the legal conceptualisations of goodwill in Section 2.2. Section 2.3 presents an historical review of the numerous accounting conceptualisations of goodwill, and Section 2.4 summarises these. Section 2.5 reviews issues related to compliance by the early adopters of IFRS. Then, the implications of the new IFRS goodwill impairment testing regime are discussed in Section 2.6, Section 2.7 examines the issues surrounding audit quality and Section 2.8 discusses issues related to audit quality among the Big 4. Section 2.9 summarises and concludes the chapter.

### 2.2 Historical Review of Legal Concepts of Goodwill

Since the 17<sup>th</sup> century, the courts have attempted to define the term ‘goodwill’, to determine the circumstances in which it might arise, and what it might add to were it to arise in a series of cases. The oldest case is said to be that of *Broad v Jollyfe*<sup>7</sup>, which adopted a straightforward and quite narrow concept of goodwill, which the court interpreted as: ‘it is but the selling of his

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<sup>7</sup> (1620), Cro. Jac. 596; Noy 98.

custom and leaving another to gain it'. The case of *Cruttwell v Lye*<sup>8</sup> is far better known, with Lord Chancellor Eldon offering his famous definition that 'goodwill which has been the subject of sale is nothing more than the probability that the old customers will return to the old place', while dealing with the business of a country wagoner. Lord Chancellor Eldon articulated the same definition in *England v Downs*<sup>9</sup> when he said that 'the chance or probability that custom would be had at a certain place of business in consequence of the way in which the business had been previously carried on'.

These definitions of goodwill focus on 'force of custom', where goodwill is seen as nothing more than customer patronage or the reasons why customers deal with a certain business entity continuously. The existence of goodwill appears by virtue of those distinctive characteristics of a particular business, which increase both the likelihood of repeat business and enterprise value. However, the court has also constructed a definition of goodwill based on the force of custom approach. In *Churton v Douglas*<sup>10</sup> Vice Chancellor Wood said:

*Goodwill must mean every advantage that has been acquired by the old firm, whether connected with the premises in which the business was previously carried on, or with the name of the firm, or with any other matter carrying with it the benefit of the business.*

In *Commissioner of Inland Revenue v Muller & Co's Margarine*<sup>11</sup> Lord Linley held that:

*Goodwill regarded as property has no meaning, except in connection with some trade, business or calling. In that connection, I understand the word to include whatever adds value to a*

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8 (1810) 17 Ves. Jr. 335.

9 (1843) 6 Beav. 269.

10 (1859) 1 Johnson 174.

11 (1901) AC 217.

*business by reason of situation, name, reputation, connection, introduction to old customers and agreed absence of competition or any of these things, and there may be others which do not occur to me.*

These two definitions represent a broader approach to the concept of goodwill. The majority in *Commissioner of Taxation v Murry*<sup>12</sup> stated that:

*The attraction of custom still remains central to the legal concept of goodwill. Courts will protect this source or element of goodwill irrespective of the profitability or value of the business. Thus a person who has sold the goodwill of a business will be restrained by injunction from soliciting business from a customer of the old firm even though the value of that firm is no greater than the value of its identifiable assets. Such considerations seem to make it impossible to achieve a synthesis of the legal and accounting and business conceptions of goodwill.*<sup>13</sup>

This approach is seen as problematic in some quarters and is not generally accepted. Thus, Kirby J (in dissent) in *Murry*<sup>14</sup> stated that:

*... goodwill means every positive advantage which is acquired by an owner in carrying on a business.*<sup>15</sup> *It is wrong, in my opinion, to take a narrow view of the nature of goodwill in the present context, not least because of the changing ways in which small businesses, including trans-national businesses, are now performed under a multitude of franchise and other licensing agreements, treaties and other legal rights.*<sup>16</sup> *It is also wrong because it introduces a serious gulf*

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12 [1998] HCA 42.

13 [1998] HCA 42 at 20, per Gaudon, McHugh, Gummow and Hayne JJ.

14 *Commissioner of Taxation v Murry* [1998] HCA 42.

15 See *Churton v Douglas* (1859) Johns 174 at 188 [70 ER 385 at 391].

16 See, for example, Terry and Giugni, 'Freedom of Contract, Business Format Franchising and the Problem of Goodwill' (1995) 23 *Australian Business Law Review* 241.



*between the notions of goodwill which are held by economists and accountants (on the one hand) and those which lawyers insist upon (on the other).<sup>17</sup>*

He went on to say:

*When ... judges reach results which are out of harmony with economic analysis and accounting expertise, it is time for them to reconsider their preconceptions ... Especially is this so where those requirements are found to produce results which involve conclusions which seem at odds with common sense.<sup>18</sup>*

Consequently, the accounting and financial reporting approaches substantially differ from the narrow legal formulations, which are focused on 'attraction of custom'. The accounting approach to explaining goodwill is explored in the next section.

### **2.3 Historical Review of Accounting Concepts of Goodwill**

Early definitions of goodwill in the accounting literature were closely aligned with early legal concepts of goodwill (Carnegie, 1987, p. 13). In 1888, the *Accountants' Journal* defined goodwill as '... the benefit and advantage accruing to an existing business from the regard its customers entertain towards it, and from the likelihood of their continued patronage and support' (Bourne, 1888, p. 107). Furthermore, in *The Accountant*, goodwill was described as: '... just another name to designate the patronage of the public' (More, 1891, p. 282); and '[it] is the benefit arising from connection and reputation and the probability of the old customers going to the new firm which has acquired the business' (Dicksee, 1897, p. 40).

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<sup>17</sup> [1998] HCA 42 at 88.

<sup>18</sup> [1998] HCA 42 at 88.

Accounting scholars have long been concerned with the difficulties associated with conceptualising, measuring and reporting goodwill. A significant amount of literature has focused on advancing theories of the nature of goodwill and thus, a wide variety of explanations on what goodwill is, how it arises, and how it might be valued, have come into existence. This dissertation explains the following 13 notable theories relating to the nature of goodwill that have emerged in the literature:

1. Customer Patronage
2. Annuity Theory
3. Future Excess Profits Theory
4. The Residuum Concept
5. Imperfect Measurement Theory
6. The New York Method
7. Certain Intangible Resources
8. Market Value Theory
9. Momentum Theory
10. Imperfect Competition Theory
11. Master Valuation Account Theory
12. Premium for Control
13. 'Bad Buy' or Loss on Acquisition.

Each of these examples will be briefly examined below.

### 1. Customer Patronage

As demonstrated in Section 2.2, legal definitions surrounding the nature of goodwill have been premised upon the notion that goodwill represents customer patronage, or the reasons why customers continue to deal with a particular business entity. This definition also appears to be satisfactory to accountants when defining goodwill. In the accounting literature, several studies, for example, Bourne (1888), More (1891), Dicksee (1897) and Carnegie (1987), viewed goodwill as nothing more than customer patronage. Specifically, Bourne (1888) defined goodwill as ‘... the benefit and advantage accruing to an existing business from the regard that its customers entertain towards it and from the likelihood of their continued patronage’. More (1891) described goodwill as ‘... just another name to designate the patronage of the public’ and ‘the benefit arising from connection and reputation, the probability of the old customers going to the new firm which has acquired the business’ (Dicksee, 1897, p. 40).

In addition, Carnegie (1987) noted that the concept of customer patronage which emerged in the nineteenth century was attributed to the state and the conduct of business at that time. Prior to the rise of the joint stock company, goodwill was referred to as the unique skills, friendliness and personality of the proprietors of a business, and much of what was written about goodwill by accountants around the turn of the century involved valuing goodwill on the death or withdrawal of a proprietor of a business.

However, that all changed with the corporatisation of business and the subsequent separation of ownership and management, together with the development in industrial nations of the manufacturing process, new financial planning, skilled labour, technological progress, market development and achievement in marketing program (Carnegie, 1987, p. 14). Thus, ‘the

owners concern shifted from the management of the business to the vendibility of the stock and the right to receive a dividend' (Hughes, 1982, p. 26), and goodwill became less dependent upon the skills, friendliness and personality of the owners and more reliant on those beneficial aspects and conditions which an established business possessed in contrast to a new business (Bentley, 1911, p. 157; Spackman, 1919, p. 29; Yang, 1927, p. 29).

## **2. Annuity Theory**

According to annuity theory, goodwill is the value of an annuity stream of future profits, which would accrue to a new owner after acquiring another entity. More (1891) is among the pioneers of this theory, followed by Hatfield (1909). According to Hatfield (1909), the concept of goodwill under annuity theory laid the foundation for the future excess profits theory and the residuum concept of goodwill valuation. Further, Nelson (1953, p. 491) described goodwill in a going concern where 'the buyer is investing in a series of excess earnings – an analogy to an investment in an annuity'.

## **3. Future Excess Profits Theory**

According to More, a proponent of the customer patronage theory, the profits of a business should be the actual basis of valuation (i.e. annuity theory) and profits are earned through tangible assets only (More, 1891, p. 284). However, if the business is making a profit over ordinary normal returns, then there is a price to be paid for goodwill. Similarly, Dicksee, an advocate of the customer patronage theory, suggested that the business's capability to make excess profit determines the value of goodwill. Goodwill is calculated on the sum of the past

three or four years of profit, with an allowance deducted for interest on capital and the cost of skilled management, and the residual, if any, multiplied by a constant factor (Dicksee, 1897).

Thus, regarding the link between goodwill and future excess profits:

*... it may be said that the payment for the expected stream of income in excess of normal return is a payment for goodwill, and the payment for the expected stream of income equal to a normal return is a payment for the other assets (Walker, 1953, p. 213).*

Based on this approach, goodwill is the present value of profits earned in excess of those required to provide normal rates of return on the identifiable assets of the firm. For example, Leake (1914, p. 82) described goodwill as ‘the present value of the right to receive expected super profits’. Similarly Bryer (1995, p. 287) described goodwill as ‘the present value of expected surplus profits’ and Ma & Hopkins (1988, p. 76) defined goodwill as ‘the capitalized value of the future streams of superior earnings of the business to be acquired’. This approach has also been supported by authors such as Guthrie (1898), Gundry (1902), Leake (1914), Walker (1938), Paton (1941), Spacek (1964), Catlett & Olson (1968), Smith (1969), Macintosh (1974), Hughes (1982) and Courtis (1983).

Twentieth-century advocates<sup>19</sup> of the future excess profits theory offer a broad explanation of the fundamental advantage of the customer patronage theory (Carnegie, 1987, p. 16). They recommend that all advantageous factors and conditions which a company may own and which could give rise to, contribute to, or accompany excess profit or earning power, be included in the concept of goodwill (Leake, 1914, p. 81; Paton, 1922; Walker, 1953). Catlett & Olson (1968, pp. 17-18) list 15 unique advantageous factors and conditions which could give

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<sup>19</sup> Leake (1914) used the term ‘super profits’ rather than the term ‘excess profits’.

rise to excess profits: superior management team; outstanding sales manager or organisation; weakness in the management of a competitor; effective advertising; secret manufacturing process; good labour relations; outstanding credit rating; top-flight training program for employees; high standing via contributions to charitable or civic activities; unfavourable developments in operations of a competitor; favourable association with another company; strategic location; discovery of talents or resources; favourable tax conditions; and favourable government regulations.

#### **4. The Residuum Concept**

Paton, a proponent of the future excess profits theory, found that intangibles are the residuum, which is the amount of shortfall between the value attributed to the business as a whole (Paton, 1922, p. 310). Thus, goodwill would be the residue, which includes all the intangible advantageous factors and conditions a business may own. But Paton's view of goodwill ignores any prospects that a number of the intangible advantageous factors and conditions may be able to be specifically identified and separately recorded as assets, for example, patents, copyright, licences and trademarks (Carnegie, 1987, p. 18).

Miller stated that in explaining a systems-theoretic approach to financial accounting, the area of valuation as '... the notion of goodwill as a residuum is necessary', (Miller, 1973, p. 285) because individual valuations of an entity's assets, in terms of the value to the 'system' or going concern, are subjective and cannot be aggregated to obtain a reliable estimate of the total value of the firm.

Carsberg, an advocate of the residuum concept, claimed that the value of goodwill could only be calculated as a deduction and stated ‘... it is not possible to demonstrate a uniquely correct value for each asset (including goodwill), considered separately, so that the aggregate reflects the value of the whole business’ (Carsberg, 1966, p. 11). Some commentators have suggested that the residuum concept is not intended to define the nature of goodwill, but rather is concerned with its valuation (Stewart, 1980).

### **5. Imperfect Measurement Theory**

According to imperfect measurement theory, goodwill arises because of the presence of a series of factors relating to the economic position and performance of a firm which are incapable of being measured and recognised individually. This theory has also been referred to by Beresford and Moseley (1983, p. 3) as the ‘unrecorded assets concept’, whereby the failure of accounting to measure certain assets (both tangible and intangible) often results in ‘... undervaluations of those items listed as assets’ (Canning, 1929, p. 43).

Gynther (1969) was positive that this theory would be displaced in the future because ‘rapid advances are being made in probability theory, sensitivity analysis, subjective probability and simulation techniques, and it is believed that these, will make possible the direct valuation of many entities and assets, with a much higher degree of precision than at present’ (Gynther, 1969, p. 255). Unfortunately, 40 years later, despite quantum advances in financial

computation and techniques such as Monte Carlo Simulation,<sup>20</sup> Gynther's prediction has not been realised.

## 6. The New York Method

The New York method was introduced in the early part of the twentieth century, following disputes arising out of tax legislation. As a consequence, the United States (US) courts were frequently called upon to determine the value of goodwill in a business. As an alternative to promote consistency in decisions across different cases (as far as their individual circumstances permitted), the New York courts created a set of principles in around 1906<sup>21</sup> to assist in these rulings. The resulting method of goodwill valuation became known as the New York method, in recognition of the principle role of the courts of New York (Carsberg, 1966, p. 6).

According to the principles of the New York method, as described by Bonbright (1937, p. 728 et seq.), an average net earnings figure is established after the deduction of reasonable management remuneration (averaging past profits). Usually, this average net profit figure is ascertained over an uncertain number of years, five in one case. Then the value of net tangible assets is established, usually by taking book values. In situations where the average return on net tangible assets does not exceed 6.0%, it is concluded that there is no goodwill.

Meanwhile, in cases relating to real estate and inheritance taxes, any surplus is multiplied by a factor to determine the amount of goodwill. The size of the multiplier depends

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<sup>20</sup> Detailed analysis on the use of Monte Carlo Simulation in enterprise valuation can be found in Valentine & Ford (1999).

<sup>21</sup> A leading case was that of *Von Au v. Magenheimer*, 115 App. Div. 84, 100 N.Y. Supp. 659 (1906); 126 App. Div. 257, 110 N.Y. Supp. 629 (1908); aff'd, 196 N.Y. 510, 89 N.E. 1114 (1909).



on the facts of each case and it might be one to five, or occasionally as high as ten times, yet the rationale of the factor seems to have gone unstated. As Carsberg (1966, p. 6) stated, at about the same time in special franchise tax cases, goodwill was determined by capitalising surplus profits at an interest rate of about 7.0%; however, there was no cross-reference between these two types of cases.

## **7. Certain Intangible Resources**

In 1938 the earliest reference to this concept stated that goodwill ‘... is sometimes defined ... as the excess of the total value of the assets of a going concern over the part of the value which can be allocated to specific assets’ (Sanders *et al.*, 1938, p. 67). Goodwill under this concept represents certain intangible resources, irrespective of whether returns have been earned, or are yet to be earned. Goodwill can be defined as the variation between the total value of a business and the value attached to its various identifiable net assets, including the intangible assets which are able to be individually recognised and independently recorded.

According to this concept, goodwill exists because of the occurrence of certain intangible advantageous factors and conditions, normally classified as unidentifiable intangible assets, which add to the overall value of the business. These intangibles include those previously identified as contributing to profit (Catlett & Olson, 1968) and other goodwill drivers of value. Further definitions of goodwill consistent with this concept include other intangibles that provide advantages including personality, locality, connections, premises, reputation and skill and quality of goods (Stacey, 1888, p. 605; More, 1891, p. 282; Roby, 1892, p. 288-289; Warren, 1894, p. 97; Dicksee, 1897, p. 40; Guthrie, 1898, p. 425; Browne, 1902, p. 1340;

Dawson, 1903, p. 196; Dicksee & Tillyard, 1906, pp. 29-37). Goodwill also includes items such as trademarks and trade names, patents and similar rights (Dicksee & Tillyard, 1906, pp. 3-4; Leake, 1914, p. 82).

According to Gynther (1969), the certain intangible resources concept is the most relevant concept of goodwill and 'goodwill exists because assets are present, even though they are not listed with the tangible assets' (Gynther, 1969, p. 247). Both Gynther and Tearney (1973) agreed that the existence of goodwill is dependent upon the existence of certain intangibles which jointly contribute to the overall profitability or value of a business. Examples of these intangibles include 'special skill and knowledge, high managerial ability, monopolistic situation, social and business connections, good name and reputation, favorable situation, excellent staff, trade names, and established clientele' (Gynther, 1969, p. 247). Gynther also suggested that the intangibles involved would still be expected to exist and be contributing to the overall profit or value of the business.

## **8. Market Value Theory**

The underlying concept of goodwill in the market value theory is a function of equity rather than a function of assets or profits. The main idea of this theory is that goodwill may be approximated as the difference between the market value of equity at any given time, and the book value of equity. An early example of this theory is found in MacNeal (1939) when he argued that:

*the total value of a business as a whole is best expressed by the price of its equities in the market place. The difference between this value and the value of the net assets [equity] with goodwill constitutes the present market value of theoretical goodwill (MacNeal, 1939, p. 232).*

According to Spacek (1973), goodwill under this theory is the most economically defensible approach to rationalising and understanding the value of goodwill. Further, a recent study which discussed this theory is Bloom (2008), who argued that goodwill is easily and objectively ascertained by reference to market capitalisation, and he proposed the inclusion of a market capitalisation statement within an annual report ‘to provide an objective, integrated and meaningful view of goodwill in the financial statements’ (Bloom, 2008, p. 3). The market capitalisation statement identifies goodwill (both purchased and internally generated) as the difference between the market capitalisation of the company and the ‘comparison value’ which would comprise the book value of shareholders equity less the cost of purchased goodwill.

## **9. Momentum Theory**

The momentum theory of goodwill was first advanced by Nelson (1953). According to Nelson (1953), goodwill may be thought of as the initial momentum or ‘push’ which accrues to the acquiring firm rather than starting fresh in a similar business. Nelson’s (1953) main argument was that an acquisition transaction may result in greater business momentum as a result of favourable characteristics associated with the new entity. The value of this momentum or push may be thought of as goodwill.

In describing the favourable characteristics that make up goodwill, Leake noted that:

*goodwill may include any or all such property as business connection associated with names, persons and places of business, trade marks, patents and designs, copyright, and the right to exercise monopolies (Leake,(1930, p. 18).*

Nelson also described each of the various mentioned items as goodwill, declaring that:

*goodwill comprises customer lists, organization costs, development costs, trademarks, trade names and brand, secret processes and formulae, patents, copyrights, licenses, franchises and superior earning powers (Nelson, 1953, p. 491).*

He went on to say that the most important item of goodwill is:

*favorable attitudes towards an enterprise [which would include] favorable attitudes of customers, employees, credit grantors, investors, suppliers, governmental regulators, politicians and the general public (Nelson, 1953, p. 491).*

Since the existence of such favourable characteristics in a going concern is a reality, the exchange value of goodwill was thought to be based on ‘anticipation ... that the owner of any of these rights will earn future profit, increase in value, or other advantage’ (Leake, 1930, p. 18) (Leake, 1930). In justifying why a buyer of a going concern may often pay a large sum of money for goodwill, Nelson further noted that:

*the reason is that he wants this starting ‘push’ in his new enterprise, rather than to start fresh in a similar business and devote much effort and money over a long period to time to develop such goodwill (Nelson, 1953, p. 491) .*

Nelson further hoped that the momentum theory he proposed would be totally different from annuity theory. According to Nelson, momentum theory is a better hypothesis to understand purchased goodwill because 'businessmen are not buyers of annuities but buyer's of a marketing or promotional push' (Nelson, 1953, p. 492). It was thought that the 'push' that the buyer receives for the investment in goodwill is not a continual, everlasting one (as implied under annuity theory), but rather like a running start, where the push would dissipate like momentum.

### **10. Imperfect Competition Theory**

Sands (1963), who was among the earliest advocates of the imperfect competition theory of goodwill, stated that goodwill comes into being as a result of a firm facing less than perfect competition. This less than perfect competition allows various factors favourable to the firm to crystallise, and these in turn allow the firm to earn profits at above normal (economic) levels. Further, intangibles, in general, are 'conditions of imperfect competition impinging on the operation of a business' (Sands, 1963, p. 32), and, he argued it is these conditions which give rise to profits in a firm, for without conditions of imperfect competition, economic profit could not exist. In describing goodwill, Sands stated:

*It is not possible to know and enumerate every individual condition of imperfect competition affecting a business. In current accounting practice only a very few are segregated; those legally protected by patents, copyrights, trade marks, franchises, and the like; those arising from large-scale expenditures for such things as advertising and research, whose cost is described as organization, financing and development expenses. All those that are not separately*

*distinguished, favourable and unfavourable, are lumped together under the single caption goodwill (Sands, 1963, p. 21).*

However, Falk and Gordon (1977) found that this concept of goodwill does not break down the concept of imperfect competition to the various markets within which a firm operates (e.g. financial, capital goods, labour and product markets) thereby preventing a complete analysis of the nature of goodwill (Falk & Gordon, 1977, p. 446). Therefore, Sands' imperfect competition theory failed to find any strong empirical support.

## **11. Master Valuation Account Theory**

The master valuation account theory was proposed by Canning (1929) when he described goodwill as the 'master valuation accounting' or the 'valuation account par excellence' (Canning, 1929, p. 42). Goodwill therefore is defined as the difference between the purchase consideration paid upon acquiring a firm and the net value of identifiable assets (tangible and intangible) received in that transaction.

Another study by Beresford and Moseley (1983) observed that the master valuation account concept arises from combining the residuum theory and the imperfect measurement theory.<sup>22</sup> The concept implies that goodwill is a common value which is not able to be allocated to specific types of assets in a logical manner (Carnegie, 1987, p. 22). In describing this concept, Bedford and Burton (1977) noted '... it is clearly an accounting concept created because of the

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<sup>22</sup> Beresford and Moseley (1983) referred to imperfect measurement theory as the 'unrecorded assets' concept.

measurement difficulty and is recorded as if it had no single distinctive constitutive characteristics' (Bedford & Burton, 1977, p. 4).

## **12. Premium for Control**

Goodwill has been seen as a premium or the cost of control of a business entity (Wolff, 1967; Carslaw, 1982). This concept can be defined as the difference between the buyer's offering price on the announcement date and the market value of the purchased portion of the acquired firm prior to the announcement date (Choi & Changwoo, 1991, p. 223). While the main advantage of paying a premium for control is the right to direct the entity's policies into the projected future (Wise, 1986), a premium for control may be rewarded on other grounds including the 'opportunity to eliminate a troublesome competitor or the chance to acquire a strategic business operation' (Carnegie, 1987, p. 22), or reasons unrelated to earning power (Wolff, 1967, p. 257).

Barlev (1973) noted that a premium for control may occur where goodwill is also evident and Choi and Changwoo (1991) found that premiums paid were more likely to be associated with goodwill. Another view of the premium for control concept was suggested by Archer (1976, p. 43) who stated that a premium '... arises when an enthusiastic buyer faces a shrewd or reluctant seller'. In such cases a speculative amount or premium is paid over the perceived economic value of the business entity, which Archer believed might be goodwill.

### **13. 'Bad Buy' or Loss on Acquisition**

The fundamental idea behind the 'bad buy' or loss on acquisition concept is that any excess paid over the value assigned to the net assets acquired is seen only as an overpayment, implying that no intangible advantageous factors and conditions will accrue to the acquiring firm as a result of this overpayment of loss. This is consistent with Leo and Hoggett (1984, p. 384) who said that 'bad buy' occurs when a purchaser makes an incorrect assessment of the value of the net assets acquired, resulting in an overpayment to the vendor. The 'bad buy' concept has also been termed the 'unallocated acquisition cost' concept (Carnegie, 1987, p. 24).

## **2.4 Summary of Accounting Concepts of Goodwill**

There are clearly contradictions among the 13 theories of goodwill presented above. Table 2.1 itemises each of the theorems and identifies them as being either theorems that support the existence of goodwill, or theorems that are concerned with how to approach the valuation of goodwill. An inspection of the classifications in Table 2.1 reveals that the majority of the theorems (nine out of 13 or 70%) represent the latter rather than the former.

In contrast, only four out of 13 or 30% are concerned with understanding the conditions necessary to support the existence of goodwill, rather than how it might be valued or what it might consist of in the event that it were to come into existence.



**Table 2.1 – Focus for Understanding Goodwill Theorems**

<b>Theorem</b>	<b>Focus for understanding goodwill</b>
Customer Patronage	Supports the existence of goodwill
Annuity Theory	Approach to measuring goodwill
Future Excess Profits Theory	Approach to measuring goodwill
The Residuum Concept	Approach to measuring goodwill
Imperfect Measurement Theory	Supports the existence of goodwill
The New York Method	Approach to measuring goodwill
Certain Intangible Resources	Approach to measuring goodwill
Market Value Theory	Approach to measuring goodwill
Momentum Theory	Supports the existence of goodwill
Imperfect Competition Theory	Supports the existence of goodwill
Master Valuation Account Theory	Approach to measuring goodwill
Premium for Control	Approach to measuring goodwill
‘Bad Buy’ or Loss on Acquisition	Approach to measuring goodwill

\*Adapted from (Finch, 2010)

None of the theories set out above discusses goodwill in the context of a particular business or industrial setting. Nor do they explain the appearance or constant existence of goodwill in respect to a specific causal factor, such as the ‘attraction of custom’ concept so common in legal formulations of goodwill. Gynther’s imperfect measurement approach clarified goodwill as a unifying basis for understanding what the phenomenon of goodwill represents. He also argued that it is essential to be specific about separating approaches used as a basis for

measuring goodwill from theorems dealing with the nature of goodwill. In relation to the latter, he said that:

*Goodwill exists because assets are present, even though they are not listed with the tangible assets. For example, 'special skill and knowledge,' 'high managerial ability,' 'monopolistic situation,' 'social and business connections,' 'good name and reputation,' 'favorable situation,' 'excellent staff,' 'trade names,' and 'established clientele' are assets in this category. The sum of the value of these assets (commonly referred to as intangible assets) is the value of goodwill (Gynther, 1969, p. 247).*

The main thing is that in every business, regardless of the location or industrial setting, sources of value incapable of being discretely measured (or even in some cases named) may nonetheless exist and represent a material element of the value of the enterprise as a whole. Bearing this in mind, Gynther observed that:

*If we were omniscient it would be possible to name all of the intangible assets (as well as the tangible assets) and to calculate for each its net present value. This would mean that we would also have values for all assets such as 'special skill and knowledge,' 'high managerial ability,' etc. – i.e., if they existed. There would be no goodwill item as such (Gynther, 1969, p. 248).*

From a conceptual point of view, goodwill in financial reports exists owing to the deficiency in the measurement methodologies employed by accountants, both in an acquisition transaction and in a firm that continues to operate independently of some change of control transaction. Its substance as a construct is related to the legal formulation favoured by Kirby J in *Murry*, where goodwill was considered 'every positive advantage which is acquired by an owner in carrying on a business'. This is an acceptable approach to understanding goodwill, due to its consistency with the body of theory which has developed over time and also because it may be

reconciled to the definitional framework with regard to goodwill embodied in the relevant accounting standards. The next section reviews issues related to compliance by the early adopters of IFRS.

## **2.5 Issues of Compliance by the Early Adopters of IFRS**

IFRS have recently been adopted in a number of jurisdictions. Currently, more than 100 countries require or allow their companies to prepare their financial statements using IFRS (Johnson & Leone, 2008). The adoption of IFRS around the world is occurring rapidly to bring accounting quality improvement through a uniform set of standards for financial reporting. There are many potential benefits that may arise from the use of one common set of accounting standards and these include improved transparency, comparability and quality of financial reporting that lead to lower preparation costs, more efficient investment decisions and lower cost of capital for companies (Choi & Meek, 2005).

In spite of the benefits to be gained from adopting IFRS, its implementation is a real challenge and involves all parties, entities, auditors and regulators, with some commentators saying that the IFRS requirements are among the most technically challenging standards ever to be implemented in practice (Hoogendoorn, 2006). The lack of adequate disclosure, along with the absence of adequate audit and regulatory oversight, may conspire to result in the production of information of a lower quality than that hoped for by standard setters or delivered under competing reporting frameworks (Watts, 2003).

A number of studies have examined the difficulties associated with the implementation process in the first few years of IFRS adoption. The most common documented difficulty of IFRS implementation is complexity in the standards (Larson & Street, 2004). IFRS is complex and for most users this creates a financial statement that is difficult to read and understand. The most difficult issues in practice are financial instruments (IAS 32, 39), pensions and employee benefits (IAS 19), purchase accounting (IFRS 3, IAS 38), impairment testing (IAS 36) and income taxes (IAS 12) (Larson & Street, 2004; Tokar, 2005; Hoogendoorn, 2006). Street & Gray (2002) also found a significant extent of non-compliance with IFRS, while a study by Abdelsalam & Weetman (2007) observed a low degree of compliance with IFRS in most listed companies in Egypt. The low compliance with IFRS can be explained by the complex nature of the standards in terms of conceptualising, measuring and ultimately disclosure and hence, are difficult to implement in practice.

This complexity impacts upon cost and is time-consuming. The preparation of financial reports requires a huge investment of money in proper training for management, accounting staff and auditors (Tokar, 2005; Rezaee *et al.*, 2010). The complexities of IFRS combined with a lack of sufficient expertise leads to significant involvement of auditors in achieving full compliance with IFRS. The auditor's involvement in preparing the accounts to such an extent means that there may be issues concerning the violation of auditor independence (Sucher & Alexander, 2002; Hoogendoorn, 2006).

The IASB has found it necessary to provide detailed implementation guidance for IFRS, otherwise international convergence with the FASB will place additional pressure on developing reliable fair value measures (Schipper, 2005). There was concern about the cost of moving to

using fair value for valuations of assets and liabilities and the reliability of the fair values derived as fair values are used more within IFRS (Sucher & Jindrichovska, 2004). A growing number of empirical studies have examined the implementation process in developed countries. Jermakowicz (2004) and Jermakowicz & Gornik-Tomaszewski (2006) examined the process of implementing IFRS by European publicly traded companies listed on major European stock exchanges, such as the London Stock Exchange, German *Deutsche Börse*, Euronext-Paris, Euronext-Brussels, and European Union (EU) companies registered with the US Securities and Exchange Commission. Based on a questionnaire sent out in 2004, the 112 responses received indicate that the process of implementing IFRS is costly, complex and burdensome. The complexities of IFRS, together with the lack of implementation guidance and uniform interpretation, are key challenges in convergence.

A study of the implementation process to convergence using data from 17 European countries (the 10 new EU members, Switzerland and other EU candidate countries) directly affected by the EU's decision to allow listed companies to prepare consolidated financial statements in accordance with IFRS by 2005, revealed that the two most significant impediments to convergence are the complicated nature of particular IFRS and the tax-orientation of many national accounting systems (Larson & Street, 2004). This study utilised data collected by the six largest international accounting companies during their 2002 convergence survey. Six of the surveyed countries noted that insufficient guidance on first-time application of IFRS was a concern. Latvia and Slovakia specifically mentioned the cost of convergence especially with regard to having current and up-to-date IFRS translations available. Other issues in the implementation of IFRS included limited experience with certain types of

transactions (e.g. pensions) and underdeveloped national capital markets (eight of the 10 new EU member and EU candidate countries are classified as such).

Sucher & Alexander (2002) studied the IFRS implementation process in the Czech Republic. Their research was based on a review of the legislation, institutional framework and context, and interviews with Czech companies, auditors and institutional players in the Czech Republic. The result raises concerns about the cost of moving to using fair value, which was used for valuations of assets and liabilities. Jermakowicz (2004) examined the IFRS implementation problems based on a survey sent to BEL-20 companies. The result suggests that the key challenges include: the use of fair values which may bring increased volatility to the reported values of assets as well as earnings; the significant cost involved in the adoption of IFRS; the complex nature of some of the IASB's standards; and the lack of adequate implementation guidance. A subsequent study by Jermakowicz *et al.* (2007) observed the same issues in a different market by examining companies in the German premium stock market and their adoption of IFRS and US GAAP from 1995 to 2004. Based on a survey sent to DAX-30 company executives, the result suggests that the key challenges related to the adoption of IFRS are the complexity of IFRS, the high cost of adoption, and the lack of IFRS implementation guidance.

The same difficulties in adopting IFRS have been encountered in the emerging market; however, only a few studies have examined the implementation process in this market. Phuvanatanarubala (2005) reported that companies in Thailand found IFRS complex, the difficult standards being IAS 39 on debt restructuring, IAS 14 on segment reporting, the revised IFRS 3 – *Business Combinations* and IAS 36 – *Impairment of Assets*. Poria (2009) suggested that

the challenges faced during the adoption and implementation of IFRS in India was due to the fact that the disclosure and reporting requirements under IFRS are completely different from Indian reporting requirements. These difficulties include shortage of trained IFRS staff and lack of training facilities, and as IFRS uses fair value in valuing most of the items on financial statements, the use of fair value accounting can bring a lot of volatility and subjectivity to the financial statements.

The adoption of high quality standards such as IFRS is associated with high financial reporting quality. Ball *et al.* (2003) argued that adopting high quality standards might be a necessary condition for high quality information, but not necessarily a sufficient one. Consistent with this argument, Van-Tendeloo & Vanstraelen (2005) addressed the question of whether the adoption of IFRS is associated with lower earnings management. They examined German listed companies in the period from 1999 to 2001 that had adopted IFRS, and found that they engaged significantly less in earnings management behaviour compared to companies reporting under German GAAP. Their results suggest that the adoption of IFRS cannot be associated with lower earnings management.

Christensen *et al.* (2007) examined earnings management and timely loss recognition among German companies, focusing on earnings smoothing and managing toward small positive earnings. They found no evidence of quality improvements subsequent to mandatory adoption by companies that resisted IFRS adoption. Paananen & Lin (2009) examined the characteristics of accounting amounts using a sample of German companies during the period from 2000 to 2006. The results indicate a decrease in accounting quality after the mandatory

EU adoption in 2005, which suggests that accounting quality has not improved but worsened over time.

Jermakowicz (2004) analysed the IFRS adoption process and the application of IFRS in the consolidated financial statements of Belgian publicly traded companies. A survey sent to BEL-20 companies indicated that implementing IFRS would dramatically change the way these companies design and handle both their internal and external reporting activities, and the adjustments required to translate Belgian GAAP to IFRS would result in a significant impact on the companies' reported equity, as well as their net income. Ormrod & Taylor (2004) studied the impact of the change from UK GAAP to IFRS on covenants included in debt contracts. They suggested that the change in accounting measurement on the adoption of IFRS could have unexpected consequences for reported figures and is likely to result in more volatile reported earnings figures. They concluded that the adoption of IFRS does not necessarily lead to higher quality accounting and that the flexibility offered by IFRS might render it ineffective in restricting earnings management.

Consistent with the difficulties and issues in IFRS adoption as cited above, several studies have attempted to measure companies' levels of compliance with IFRS/IAS disclosure requirements, and most of the results suggest a great deal of non-compliance. Among the main papers are those of Street *et al.* (1999), Street & Bryant (2000), Glaum & Street (2003), Fekete *et al.* (2008), Teodori & Veneziani (2007), Hodgdon *et al.* (2008), (2009) and Al-Akra *et al.* (2010).

Street *et al.* (1999) reported on an empirical study of the accounting policies and disclosures of a sample of major companies from around the world who claimed to comply with



IAS in 1996. The findings reported significant non-compliance in many areas which was very problematic for the IASC as it had been attempting to achieve an International Organization of Securities Commissions (IOSCO) endorsement. In a subsequent study, Street & Bryant (2000) investigated whether the disclosure requirements of the IASC were complied with or exceeded for US listed versus non-US listed companies claiming to use IAS. The findings reveal that the overall level of disclosure is greater for companies with US listings; for companies without US listings and filings, compliance is a great concern.

Another study of German companies by Glaum & Street (2003) examined the extent to which companies listed on Germany's New Market complied with both IAS and US GAAP. Overall, the findings suggest a considerable amount of non-compliance despite the requirements of IAS 1 Revised. In addition, the average compliance level was significantly lower for companies that applied IAS compared to those that applied US GAAP. The most recent study carried out in Italy by Teodori & Veneziani (2007) examined the level of disclosure pertaining to intangible assets (IAS 38) of Italian companies via an empirical analysis which was summarised in a 'disclosure index'. The index showed that, on average, only 58% of the information required by the IAS 38 was supplied, and given the importance of the annual report as a source of information, this result was not considered satisfactory.

Studies reporting factors associated with the level of disclosure include Fekete *et al.* (2008) and Hodgdon *et al.* (2008). Fekete *et al.* (2008) investigated compliance with IFRS disclosure requirements among Hungarian listed companies. Their findings indicate significant non-compliance by the reporting entities, with corporate size and industry type statistically associated with the extent of compliance with IFRS disclosure requirements. Hodgdon *et al.*

(2008) investigated the relationship between analysts' earnings forecast errors and company compliance with the disclosure requirements of IFRS. This study examined the annual reports for the years 1999 and 2000 and measured compliance using both a weighted and unweighted disclosure score, incorporating an innovative measure of IFRS compliance based on the Saidin index. The findings suggest that both measures of compliance with IFRS disclosure requirements were negatively associated with individual analysts' earnings forecast errors.

On the other hand, more recent studies by Hodgdon *et al.* (2009) and Al-Akra *et al.* (2010) reported improvements in the level of disclosure with IFRS requirements. Hodgdon *et al.* (2009) investigated the impact of auditor choice on IFRS compliance and examined the 1999 and 2000 annual reports of a sample of non-US companies that claimed to comply with IFRS. The results reveal that compliance improved between 1999 and 2000, and the compliance level was positively related to auditor choice. Al-Akra *et al.* (2010) examined mandatory disclosure compliance of IFRS requirements by a sample of 80 non-financial, listed Jordanian companies for the years 1996 and 2004 and investigated the influence of accounting disclosure regulation, governance reforms and ownership changes, resulting from privatisation. The findings suggest that disclosure compliance with IFRS was significantly higher in 2004 than it was in 1996 as a result of the introduction of disclosure and governance reforms.

This research proceeds in a different manner. Bearing in mind the high degree of complexity inherent in the IFRS impairment testing framework (Carlin & Finch, 2010), the conceptual flaws in the configuration of the relevant standards (Lonergan, 2007; Haswell & Langfield-Smith, 2008), the detailed empirical record of problematic reporting practices in fields closely related to impairment testing (Herrmann & Thomas, 2000; Street *et al.*, 2000; Ettredge

& Smith, 2002; Bens & Monahan, 2004), and the growing empirical evidence of relatively lax auditor oversight of note form disclosures – on which FRS 136 relies heavily (Libby *et al.*, 2006) – this research focuses specifically on the issue of standards compliance. In particular, a review of the extant literature yields the expectation that high levels of compliance with the precepts of newly introduced IFRS relating to goodwill should be taken as given. It is assumed that companies adopting international reporting standards relating to goodwill impairment are likely to display substantial variation in treatment and approach and in the consistency and quality of their compliance with the requirements of the standards. Arguably, this phenomenon is likely to be accentuated in jurisdictions without a history of strong rules relating to goodwill accounting and reporting, of which Malaysia represents a case in point.

The recent literature relating to this issue focuses on the incentive compatibility problems which may be associated with the implementation of impairment-based approaches to goodwill measurement and reporting (e.g. Beatty & Weber, 2006; Hayn & Hughes, 2006). There has generally been very little published research recently in accounting that has documented the level of compliance and disclosure quality of goodwill accounting with the new reporting regime. Yet as with any substantial and complex change, variations may arise between anticipated and actual effects in the world of practice. One respect in which this theory/practice gap is slowly becoming salient to researchers in the context of IFRS implementation relates to the question of compliance. This represents a precondition to the achievement of harmonisation and unification of practice, yet in much of the accounting and reporting literature, this dimension of practice has been overlooked.

The issues examined in this research area have been the subject of investigation in other jurisdictions that have recently adopted IFRS, including Australia, Singapore and Hong Kong (Carlin & Finch, 2010; Carlin *et al.*, 2010a; Carlin *et al.*, 2010b). However, Malaysia differs very substantially in many key respects from jurisdictions such as Australia. One key area of difference is the historical regulation of goodwill accounting and reporting. Australia, for more than two decades prior to the introduction of IFRS, maintained a highly prescriptive system for the regulation of goodwill accounting and reporting. This has not been the preferred approach in Malaysia. Thus, the transition to IFRS in Malaysia represents an even more dramatic and significant step than in other jurisdictions. For this reason, the contribution of this research into compliance and disclosure quality is distinct from all prior literature. The next section discusses the issues surrounding the new IFRS goodwill impairment testing

## **2.6 Goodwill Issues and the Implication of New IFRS Goodwill Impairment Testing**

The quality and content of financial reports have long been matters of primary concern for researchers interested in accounting. Whether approaching these questions from a positivist (Watts & Zimmerman, 1986), analytical (Sterling, 1990) or critical (Briloff, 2004) perspective, certain common themes consistently emerge from the literature on financial reporting. One vital thematic concern relates to the degree to which financial reports faithfully represent the underlying economic position of companies.

Authors writing from a variety of traditions have proffered evidence suggesting that the content of financial reports is often problematic. In some cases this has been explained by reference to uncontrolled incentive problems (Berger & Hann, 2007). In others, the primary explanation has been based on the suggestion that regulations relating to reporting and disclosure have been flawed (Tweedie, 2007; Plumlee & Plumlee, 2008). In some cases, it is arguable that the best standpoint from which to appreciate the difficulties inherent in financial reporting relates to the intractable nature of particular phenomena incorporated into financial reports. Goodwill represents such a reporting object. For many decades, scholars and practitioners alike have generated long lists of largely inconsistent and incompatible explanations of and prescriptions for the valuation and reporting of goodwill (Bloom, 2008).

It can come as no surprise then that goodwill in practice has also exhibited considerable turmoil over time. Controversies relating to the improper use of the pooling of interests approach to acquisition accounting in order to avoid goodwill recognition, excessive in-process research & development allocations and immediate post-acquisition write-offs, the use of aggressive expense deferral amortisation techniques such as the inverse sum of the years' digits, represent a small sample of the challenges which have arisen over time (Gibson & Francis, 1975; Carnegie & Gibson, 1987; Wines & Ferguson, 1993).

Similarly, when contemplating the current preference on the part of standard setters for impairment testing-based regimes for goodwill, it is useful to recognise that formulations for goodwill reporting based on a rejection of the classic capitalise and amortise regime are not new. Over a century ago, Dicksee opined that it was not necessary or appropriate to

‘depreciate’ goodwill and that under normal circumstances it was appropriate to continue to hold it on the balance sheet at cost (Dicksee, 1906).

The shift to the IFRS ‘capitalise and test for impairment’ approach and its analogues in US GAAP (Generally Accepted Accounting Principles) should therefore not be seen as a transition to an inherently new or superior technology. This much has already been made clear in a growing body of literature critical of both the conceptual foundations and practical consequences of the IFRS and US GAAP goodwill impairment testing regimes. Watts (2003) represents an early and high profile example of some of the criticisms which have been levelled at this approach. He characterised the FASB’s decision to opt for an impairment testing-based regime in SFAS 142 – *Goodwill and Other Intangible Assets* as an error in judgement likely to leave open the pathway to aggressive earnings management and systematic asset value over statements.

The accounting treatment of goodwill involves applying professional judgment in terms of meeting criteria for its recognition as an intangible asset, initial measurement and impairment (Bunea-Bontas & Petre, 2009). Its complexity and reliance on many subjective judgments suggests that management may use the new impairment testing in an opportunistic way, with some companies understating their impairment and others overstating it, depending on the managerial incentives (Zang, 2008). Haman & Jubb (2008) and Jarva (2008) agree and commented that the new goodwill rule provides flexibility to managers to manage the recoverable amount of goodwill in order to minimise impairment losses. The inherent unverifiability of fair values for intangibles and management’s incentives to inflate assets and earnings leaves management with this new discretion to delay impairments and this can

seriously compromise the usefulness and increase the likelihood of opportunistic disclosures (Watts, 2003; Ramanna, 2008; Ramanna & Watts, 2009).

A stream of empirical evidence has documented that management uses the discretion afforded by the new impairment testing regime to opportunistically manipulate earnings. Ramanna and Watts (2009) examined impairment decisions of companies for which the market price indicates the need for goodwill impairments. The evidence suggests that management use the discretion afforded by SFAS 142 to opportunistically manipulate earnings by selectively delaying goodwill impairments. Haman & Jubb's (2008) findings show that managers do manage earnings using discretionary long-term accruals, particularly at the time of mandatory adoption of a new goodwill rule. Finally, a study by Zang (2008) concluded that the discretionary behaviour of managers plays a role in determining the amount of the initial impairment loss.

The new statement of goodwill provides significant flexibility in regard to managerial judgment and discretion and thus, the quality of earnings figures may be lowered. Dagwell *et al.* (2004) commented that the proposed treatment of goodwill impairment might be more realistic commercially but potentially could cause volatility of reported earnings. A study by Li & Sloan (2009) agreed with these findings and suggested that management exploit the discretion afforded by SFAS 142 to temporarily overstate goodwill, earnings and stock prices. The evidence indicates that the new accounting results in overstated goodwill balances, untimely impairments and increased earnings volatility. A study by Sevin & Schroeder (2005) found that US managers managed earnings downwardly after the adoption of the new goodwill rule under SFAS 142. The authors suggested that companies used the timing of the change in the goodwill

rule to make big bath charges. Besides the fact that impairment testing involves many management judgments, the bases of the judgments are rarely disclosed in sufficient detail to allow analysts or investors to critically evaluate management's impairment analysis. Thus, valuation complexity and lack of information means companies have a significant opportunity for earnings management (Vance, 2008). Holthausen & Watts (2001) pointed out that if there are management incentives to manipulate earnings, then the lack of verifiability will tend to affect the reliability and the value relevance of the accounting numbers.

Other commentators, such as Massoud & Raiborn (2003), have questioned the desirability of a reporting framework so reliant on subjective judgments without appropriate verification checks and balances. Others have asserted the existence of obvious technical flaws in the manner in which asset impairment standards have been drafted (Haswell & Langfield-Smith, 2008). Researchers raised few doubts in carrying out the allocation of goodwill and determining its value because the guidelines provided were too subjective and the mechanics of its operation complex and subject to a high degree of interpretation. Massoud & Raiborn (2003) raised concerns regarding the definition of a reporting unit and assignment of assets and liabilities towards it under SFAS 142, which seem to provide a significant amount of flexibility. Under AASB 136 – *Impairment of Assets*, Haswell & Langfield-Smith (2008) commented that the use of CGUs to determine goodwill impairment is over-complex and an imprecise concept that seems to encourage management discretion in the allocation process.

Consistent with the concerns raised in these conceptual contributions, evidence is accumulating in the empirical literature of an array of problems associated with impairment testing regimes. These include a lack of evidence that earnings numbers derived under the



present regime are more value relevant than those generated under the previous capitalise and amortise regime (see, for example, Chen *et al.*, (2004); evidence that write-off timing is consistent with managerial opportunism (Anantharaman, 2007); evidence of undue delays in recognising impairment losses (Henning *et al.*, 2004; Hayn & Hughes, 2006; Ramanna & Watts, 2007); and evidence of gaming in the manner in which goodwill is allocated between reporting units in a bid to minimise the chance of forced impairment losses (Zhang & Zhang, 2007). Contributions to the literature by practitioners have also expressed strong concerns about the operation and effect of the impairment-based regime for goodwill reporting, one author recently offering the view that the IFRS impairment framework is likely to yield misleading results at odds with any discernible thread of logic or principle (Lonergan, 2007).

All of these authors expressed concerns, for varying reasons, about the quality of the information product emanating from the impairment testing framework for goodwill measurement and reporting, yet appear to have neglected the question of compliance. That is, researchers appear to have assumed that preparers of financial statements systematically comply with the technical requirements of the accounting standards which embody the impairment testing framework, and that the information quality deficiencies which are attributed to the operation of the framework result from factors such as the opportunistic exercise of discretion. While not equating technical compliance with reporting standards and the quality or serviceability of the resulting disclosures following (Schuetze, 1992; Clarke *et al.*, 1997) the degree to which companies adhere to the requirements of applicable standards must nonetheless be viewed as a matter which has the capacity to materially influence, and in cases of non-compliance, detract from the decision usefulness of financial statements. Consequently, it is this matter which constitutes the principal focus of the first and second research areas as

identified in Chapter 1. The next section considers issues related to audit quality as the focus of the third research area.

## **2.7 Issues of Audit Quality**

One common definition of audit quality is provided by DeAngelo (1981): ‘the market-assessed joint probability that a given auditor will both (a) discover a breach in the client’s accounting system, and (b) report the breach’. The first element of this rubric relates to the technical competence of the auditor, while the second is generally explained as flowing from the degree of independence exercised by an auditor. Therefore, according to DeAngelo’s (1981) definition, audit quality is a function of the auditor’s ability to detect material misstatements and auditor independence.

Palmrose (1988) defined audit quality in terms of level of assurance. Since the purpose of an audit is to provide assurance on financial statements, audit quality is associated with an absence of material omissions or misstatements in financial statements. Similarly, Antle & Nalebuff (1991) defined audit quality as the assurance level provided by an audit on the fair presentation of a client’s financial statements. In particular, this assurance level is the probability that an auditor’s opinion concerning the financial statements is correct and is jointly determined by both the client and the auditor.

Other researchers also have suggested definitions for audit quality. Davidson & Neu (1993) provided an audit quality definition that is based on the auditor’s ability to detect and eliminate material misstatements and manipulations in reported net income. Dang (2004)

further described audit quality as how well an audit detects and reports material misstatements of financial statements, reduces information asymmetry between management and stockholders and therefore helps protect the interests of stockholders. Thus, auditing, as a monitoring mechanism, serves principals by providing a reasonable assurance that management's financial statements are free from material misstatements. By reducing information asymmetry and agency costs, auditing potentially benefits both the principal and the agent.

Auditors play an important role in the production and issue of high-quality financial reports. The question of whether they effectively ensure credible accounting information has received episodic attention over time. The spate of collapses in the early years of this century, exemplified by the Enron bankruptcy in 2001 and the related collapse of Arthur Andersen in 2002, triggered a bout of criticism of the Big 4, their processes and the quality of the audits being performed by them (Francis, 2004). These accounting and reporting irregularities and frauds led to intense scrutiny of corporate governance frameworks and drove intense debate about issues such as the role of the financial statement audit, auditor independence and audit quality (Ghosh & Moon, 2005). These criticisms were particularly jarring given the traditional perceptions of the high quality of audits performed by large firms (Lam & Chang, 1994).

Within the extant literature on the subject, it has been commonplace to view audit firm size as a surrogate for audit quality. It is widely accepted that audit quality differs among audit firms (DeAngelo, 1981; Francis *et al.*, 1999). Francis (2004, p. 353) argued that evidence from financial statements supports the argument that audits by bigger auditors are of higher quality and stated that 'the collective evidence is strongly supportive that audits of large (Big 4)

accounting firms are of higher quality'. The large (Big 4) auditors have strong incentives to provide or maintain a high audit quality level as these audit firms have greater reputations. It has often been assumed that larger audit firms incur costs to develop a reputation for adding value to the audit and are better able to detect and reveal management's errors or irregularities in financial reporting (DeFond & Jiambalvo, 1993).

Many studies of audit quality have been structured around this assumption and DeAngelo (1981) argued that large auditors have more incentive to issue accurate reports because they have more valuable reputations. Francis (2004) suggested that large auditors have established brand name reputations and therefore have incentives to protect their reputation by providing high-quality audits. Auditors, concerned to preserve their reputation, will strongly encourage clients to provide comprehensive disclosure (Craswell & Taylor, 1992). Otherwise, auditors' reputations may be at risk if they are associated with firms whose reporting practices are perceived as being of lower quality (DeAngelo, 1981). As Chaney & Philipich (2002) observed, impaired auditor reputation has negative consequences for the audit firm in terms of retaining and attracting clients.

When it becomes known that an auditor has negligently issued an inaccurate report, the auditor could suffer a loss of rent through fewer clients or lower fees. If large auditors have higher client-specific rents than small auditors, the loss of rent is greater for a criticised large auditor than a criticised small auditor. Therefore, large auditors should have more incentives to issue accurate reports (Lennox, 1999). This theme was later developed as the 'at risk quasi rent' explanation, pursuant to which the more extensive potential economic loss exposures faced by large audit firms provide a strong motivational framework for quality assurance and

enhancement (Francis & Wilson, 1988). According to this framework, auditors with a larger number of clients possess greater total collateral and as a consequence of avoiding audit failure arguably report a more independent opinion on client's accounts (DeAngelo, 1981). In other cases, the assumption has been founded on the argument that larger firms have more to lose in the event of litigation in the wake of audit failure, thus improving their incentives to conduct quality audits (Dye, 1993).

Large (Big 4) auditors can suffer more significant losses (for example, termination of other clients' contracts and related loss of reputation) when not reporting a discovered breach (Caneghem, 2004). Litigation risk is one of these and it will improve the audit quality of the large auditors as these auditors have more to lose financially from litigations than do small auditors, and large audit firms have been found to be the target of litigation less frequently than small audit firms (DeFond & Jambalvo, 1991). Palmrose (1988) found that Big 5 auditors have lower litigation rates than non-Big 5 auditors and St. Pierre & Anderson (1984) discovered that a lower incidence of litigation is associated with Big 5 auditors compared to non-Big 5 auditors, thereby consistent with the notion that Big 5 auditors provide higher quality audits. Lennox (1999) and Khurana & Raman (2004) suggested that the higher litigation risk faced by larger audit firms will induce them to invest more in audit quality so that they can better defend their audits against damages claims.

An array of empirical evidence ostensibly consistent with the theoretical explanations discussed above exists. In earnings management studies, clients of large audit firms have been found to exhibit lower earnings management (Francis *et al.*, 1999). This is because large audit firms are able to detect earnings management owing to their advanced knowledge and act to

control opportunistic earnings management (Becker *et al.*, 1998). DeFond & Jiambalvo (1991) studied errors and irregularities as a form of earnings management and showed that auditor client disagreements result from incentives to manage earnings and are more likely to occur for Big 5 auditees. This is because large auditors are better able to detect questionable accounting practices and act as an effective prevention to earnings management as management's reputation is likely to be damaged and company value reduced if misreporting is detected and revealed.

Several published studies have concluded that income increasing discretionary accruals are smaller in the case of large audit firm clients than small audit firm clients, and that earnings management behaviour is more prevalent among clients of smaller audit firms than large audit firms. Becker *et al.* (1998) and Francis *et al.* (1999) investigated the relationship between auditor size and discretionary accruals and found results consistent with DeAngelo's hypothesis. Becker *et al.* (1998) used the cross-sectional version of the Jones model on US data for estimating discretionary accruals and found that clients of the Big 4 report smaller discretionary accruals than non-Big 4 clients. They also looked at the variation in discretionary accruals in addition to its sign and magnitude and found that the variation was lower for big auditing firms' clients and higher for non-big auditing firms' clients. Francis *et al.* (1999) applied the cross-sectional Jones model using a sample of NASDAQ (National Association of Security Dealers Automated Quotations) companies and argued that even though clients of the Big 4 report a higher level of total accruals, they have lower amounts of discretionary accruals.

A study by Krishnan (2003) examined whether there is a linkage between audit quality and the pricing of discretionary accruals. Using a sample of 4098 companies audited by Big 6

and non-Big 6 auditors from the 2000 version of Compustat PC Plus for the years 1989 through 1998, the findings indicate that clients of Big 6 auditors reported a lower amount of discretionary accruals than clients of non-Big 6 auditors, and the association between stock return and discretionary accruals was greater for companies audited by Big 6 auditors than for companies audited by non-Big 6 auditors. On the other hand, a more recent study by Kabir *et al.* (2008) used the Dechow-Dichev model to estimate earnings quality in Bangladesh and found no difference between Big 4 clients and non-Big 4 clients on earnings quality. They argued that this is because the audit environment in Bangladesh is a small market, with a low demand for quality auditing services and poor monitoring.

Prior research indicates an increased demand for audit quality at the time of an initial public offering (IPO) and this is evidenced by an increased change to a Big 5 auditor at the time of an IPO. Zhou & Elder (2003) investigated the relationship between audit quality (measured by audit firm size and industry specialisation), and earnings management (measured by discretionary accruals) in the IPO process. They used 1048 IPO observations from 1996–1998 and found that unexpected accruals for IPO firms were lower when Big 5 auditors were selected, suggesting that Big 5 auditors were associated with reduced management discretion over earnings for IPO. Chen *et al.* (2005) examined whether auditor size and industry specialisation are associated with lower earnings management (lower unexpected accruals) for IPO companies in Taiwan. The sample consisted of 367 new issues between 1999 and 2002 from the Taiwan Economic Journal database and the result found that Big 5 auditors were related to lower earnings management in the IPO, consistent with high-quality auditors constraining earnings management and providing more precise information.

Larger audit firms have been found to consistently charge higher fees than smaller firms. Several authors have argued that this points to higher brand equity and audit quality on the part of large audit firms. A study by Francis (1984) examined the relationship between accounting firm size and audit prices. The Big 8 accounting firms were used as a proxy for large auditors and non-Big 8 firms as a proxy for small auditors in the Australian auditing services market from 1974 to 1978. The result is consistent with the notion that large accounting firms have significantly higher audit prices than smaller firms. A similar study by Craswell *et al.* (1995) examined audit fee premia for Big 8 auditors in a sample of 1484 Australian publicly listed companies. The results reveal that industry specialist Big 8 auditors earned a 34% premium over non-specialist Big 8 auditors, supporting the assumption that reputation development with respect to both brand name and industry specialisation is costly and results in higher audit fees.

Capital market studies have found that the stock market reacts more positively when a company switches to a large audit firm, and report higher earnings response coefficients (ERCs) for clients of large audit firms compared to clients of smaller audit firms. Huson *et al.* (2000) examined the audit switch effect on share prices of 135 firms listed on the KLSE that switched their auditors from 1986 to 1996. The results reveal that firms that switched to higher quality audit (Big 4) firms experienced a positive market response while a negative reaction was observed for firms that switched to lower quality (non-Big 4) audit firms. Teoh & Wong (1993) examined whether the ERC varied between Big 8 and non-Big 8 audited firms on a sample of firms listed on the New York Stock Exchange, the American Stock Exchange, and NASDAQ. The result shows that the ERCs of Big 8 auditors were higher than the ERCs of non-Big 8 auditors and thus, provides evidence that the views of larger auditors are more credible.



Other studies on the market reaction to the IPOs of stocks reveal that trading volume is significantly larger for large audit firms than small audit firms. Titman & Trueman (1986) argued that the price of the shares in an IPO increases with the quality of the information provided by the offering company and is partially determined by the quality of the auditor. This is evidence of a positive relationship between lower unexpected accruals for IPO firms and the quality of the Big 5 auditors chosen by the firm's owners. Jang & Lin (1993) investigated the relationship between independent auditor selection and trading activities. They examined the trading volumes of stocks offered to the public for the first time and found that on the first trading day, the trading volume was significantly larger for firms audited by Big 8 CPA firms than for firms audited by non-Big 8 CPA firms.

A range of studies has also suggested that companies undergoing IPOs experience less under-pricing when they hire large audit firms. Balvers *et al.* (1988) focused on the interaction between the investment banker and the selection of an auditor in relation to reduce under-pricing. Employing a sample of 1182 IPOs during 1981–1985 they found that high reputation investment bankers more frequently use high reputation auditors (large auditors) and therefore experience less under-pricing. Firth & Smith (1992) examined the selection of auditors by companies seeking a stock market listing and used a sample of companies newly listed on the New Zealand Stock Exchange in the four years between 1983 and 1986 (inclusive). The result is consistent with Balvers *et al.* (1988) and found that firms making an IPO using Big 8 audit firms experienced less under-pricing.

Without calling the significance of these matters into question, it is arguable that other factors might also wield substantial influence on the quality of the outcomes achieved by

auditors, large or small. One such phenomenon might be labelled 'technical competence'. A general assumption in the literature appears to be that this is a given in the context of the execution of a financial statement audit – particularly when the work is undertaken by a global brand name provider. This assumption may be very strongly founded on average. Yet in the domain of financial reporting key inflection points exist where an accumulation of prior technical expertise is either rendered redundant or at least degraded substantially in its worth. A notable trigger point for this form of disruption is the transition from one regulatory regime or framework to another.

This type of regime transition disruption event is well exemplified by the decision on the part of a particular jurisdiction to transition from pre-existing indigenous GAAP to a reporting framework compliant with IFRS. The extent of this disruption may be more profound in jurisdictions which at the time of transition are still in the process of rapid development and do not enjoy the depth of human capital or regulatory institutions available to more fully developed jurisdictions. In light of this, the decision by Malaysia to adopt the new and revised FRS modelled tightly on IFRS (though with some variations applicable in the transition phase) represents an interesting opportunity for research into the impact of expertise disruption on audit quality. The new suite of standards effective from 1 January 2006 represent great challenges for auditors of financial reports. In particular, a number of the new internationally compliant standards are substantially more complex in their configuration, in the nature and structure of reporting processes and disclosures that they require and consequently on the demands associated with the production of audit services under their aegis.

The new Standards relating to asset impairment represent an excellent case in point. Preparation of reports compliant with the requirements of FRS 136 requires the application of a tightly woven knit of principles drawn from forecasting, measurement and valuation theory, under conditions of inherent uncertainty. The result, especially when applied to the context of an unruly asset class such as goodwill can be highly complex and potentially controversial. Conceivably, this confluence of events may have had little impact on the degree to which financial statement audits fulfill their objective of counterbalancing information asymmetry between company management and shareholders (Herrbach, 2001). Conversely however, a broadly simultaneous combination of increased market, regulatory and technical pressure may have been withstood better by some providers of audit services than others, with resulting implications for variation in audit quality.

Despite this possibility, researchers interested in the subject of audit quality have generally contented themselves with the proposition that the main source of variation in this phenomenon may be explained by reference to the size of the company conducting the audit, with large firms (of which there are very few) providing higher quality audits than smaller firms. Implicit in this approach to conceptualising audit quality is the assumption of quality homogeneity among large firms. This is a tradition which may be traced to seminal work by authors such as DeAngelo (1981) and Shapiro (1983) and which has been reflected in a study by Lennox (1999) in the wake of these contributions. However, given the tectonic shifts in audit industry structure and the regulatory and institutional context in which audits are conducted in the immediate post-turn-of-millennium era, it is arguable that the large firm quality homogeneity assumption should be subjected to fresh scrutiny.

On the basis of this accumulation of evidence, the practice of using audit firm size as a proxy for audit quality has become entrenched and widely accepted and manifests as an element of the architecture of many high profile studies devoted to the subject, even in the post-Enron/-Andersen era (see, for example, Khurana & Raman, 2004). The third research area examines the audit quality among Big 4 auditors in an attempt to question the homogeneity of audit quality assumption. The next section discusses issues related to audit quality among the Big 4.

## **2.8 Issues of Audit Quality among the Big 4 Audit Firms**

A small number of recent studies have attempted to gain clearer insights into the question of audit quality by examining the possibility of quality differentials between large audit firms, rather than assuming that audit quality in large firms is homogenous.

Fuerman (2004) investigated the possibility of differential audit quality among large firms by examining the outcomes of 480 private securities class actions brought against the Big 6 auditors between 1996 and 1998. The result suggests that Coopers & Lybrand, Deloitte & Touche, Ernst & Young, KPMG and Price Waterhouse produced higher quality auditors than non-Big 6 firms; however, the same conclusion was not reached with regard to Arthur Andersen. By way of contrast, empirical research by Eisenberg & Macey (2003), using financial accounts restatement data as the basis for establishing audit quality, found no evidence of audit quality differentials among large auditors.

Other recent research has generated similar conclusions (e.g. Tilis, 2005). Thus, while the majority of the audit quality literature appears to continue to support the proposition that the quality of audits undertaken by large firms exceeds that of audits carried out by smaller firms, there is little evidence that strongly supports the notion of quality differentials between large firms. This is a matter of potential significance, given the transformation of the market for audit services over the past half decade (Tilis, 2005) and the dominant position of the Big 4 as auditors of large clients.

In interpreting the audit quality literature and understanding its significance, it is important to recognise that the measurement of quality has both a relative and an absolute dimension. The estimation of audit quality on a relative basis tends to proceed via a process of comparing observed values for some posited proxy for quality between audit firms, while attempts to determine the absolute quality of an audit tend to examine the audit process itself, against unique engagement-specific benchmarks.

The latter approach is costly, and usually requires researchers to be embedded with audit teams as they undertake their work, or to have direct access to audit working papers or peer review processes undertaken in relation to engagement work. There are published examples of such work (e.g. Colbert & Murray, 1998), but these are comparatively rare. On the other hand, work focused on relative measures of audit quality (via proxy), including literature citing evidence of fee differentials, litigation occurrence and resolution, earnings forecast accuracy, and earnings response coefficients, are more frequently represented in the published literature (e.g. Palmrose, 1988; Teoh & Wong, 1993; Lam & Chang, 1994).

One consequence of the manner in which the question of audit quality has predominantly been dealt with in the extant literature may be a failure to focus on situations where the most pertinent questions relating to quality relate not to the quality of one firm's offering versus another's, but rather the capacity to deliver an appropriate level of baseline assurance.

As argued above, periods of regulatory transition represent risk inflexion points where skill sets and approaches to the conduct of work previously accumulated may be deeply diminished in their value. The adoption of IFRS is a case in point. Noted companies are expected to rely heavily on their auditors for advice regarding the adoption of IFRS and it is expected that there will be a positive relationship between auditor size and the extent and quality of disclosure. It has been widely discussed in the literature that large auditors are associated with improvement in compliance levels and disclosure quality. An early study by Street & Gray (2001) examined the financial statements and footnotes of companies referring to the use of International Accounting Standards (IAS) and provided information about the factors associated with non-compliance. Using 1998 annual reports of 279 companies listed on Germany's New Market that claimed to comply with IFRS, post IAS 1 Revised, they found that compliance is positively associated with, and therefore higher for, companies audited by Big 5+2 firms.

Glaum & Street (2003) examined compliance with both IAS and US GAAP for companies listed on Germany's New Market. Their sample was based on 100 firms that applied IAS and 100 that applied US GAAP in their year 2000 financial statements. The study found that compliance ranged from 100% to 41.6%, with an average of 83.7%, and provided evidence that compliance is positively related to audit firm size and that clients of non-Big 5 auditing firms

exhibit, on average, significantly lower levels of compliance with IAS and US GAAP disclosures than companies audited by the Big 5.

Prather-Kinsey & Meek (2004) examined how IAS 14 Revised affected the segment disclosure practices of companies claiming to comply with IFRS, their sample being identified from the lists of 'Companies Referring to Their Use of International Accounting Standards in Their Financial Statements' on the IASC's website between 1997 and 2000. They further explored whether firms' segmental reporting practices were related to certain firm-specific characteristics (including size of auditor) and found that compliance with IAS 14 Revised was positively related to a firm being audited by a Big 5 auditor. This is consistent with Firth (1979), that large and well-known audit firms press their clients for better disclosure and that large audit firms can enhance their reputation by having their clients comply with complex and stringent standards, such as IAS. This result suggests that having a Big 5 auditor is the most important factor explaining compliance with IAS 14R and companies that were audited by Big 5 auditors disclosed more accounting information and were more compliant with the requirements of IAS 14R.

Kent & Stewart (2008) examined the association between the level of disclosure and corporate governance quality using a sample of Australian public companies listed on the Australian Stock Exchange and included in Aspect Data Analysis with a 30 June balance date in 2004. The study found a strong positive association between the choice of a large audit firm and the level of disclosure. The result is consistent with the assumption that larger audit firms typically have more resources and expertise to ensure that they are familiar with new

accounting requirements and an indication of a greater level of expertise and a greater commitment to IFRS.

A study of European firms by Armstrong *et al.* (2010) examined investor reaction to the introduction of IFRS consistent with expectations that the Big 4 provide more stringent enforcement and implementation and have more resources available to facilitate IFRS transition. They found a positive reaction to IFRS adoption events for firms with high quality pre-adoption information (including those firms with Big 4 auditors), consistent with investors expecting net convergence benefits from IFRS adoption.

Palmer (2008) found that companies whose annual reports were audited by higher quality (Big 4) auditors disclosed more qualitative information. The study examined whether that disclosure was of better quality than disclosure by those companies whose reports were audited by lower quality (non-Big 4) auditors. The study was based on a cross-section of 150 Australian-listed firms on disclosure made in compliance with AASB 1047 – *Disclosing the Impacts of Adopting Australian Equivalents to International Financial Reporting Standards*, and provides evidence that companies audited by higher quality (Big 4) auditors have greater disclosure in terms of both extent and quality.

Additionally, Hodgdon *et al.* (2009) examined the impact of auditor choice on IFRS compliance under the assumption of strict exogeneity of auditor choice. They investigated company compliance with the disclosure requirements of IFRS through an examination of the 1999 and 2000 annual reports of a sample of non-US firms that claimed to comply with IFRS. The study found that compliance improved between 1999 and 2000, and was positively related to auditor choice (the largest international accounting firms at the time were KPMG, Price



Waterhouse, Coopers and Lybrand, Ernst & Young, Arthur Andersen, plus BDO and Grant Thornton). This result suggests that independent audit and audit quality are important first-line responses to encourage compliance with IFRS.

A particularly challenging element of the IFRS framework is that which deals with the asset impairment phenomenon, especially as it pertains to goodwill. The need to adopt the IFRS framework for measuring and reporting on goodwill therefore represents a very substantial challenge to Malaysian reporting entities. The introduction of the new goodwill accounting and reporting regime has not resulted in profound changes to the format and nature of information recognised in the balance sheet, it has fundamentally changed the shape of note form disclosures supporting a financial statement user's understanding of the headline (recognised) balance sheet data pertaining to goodwill.

Thus, while audit attention to the value ascribed to goodwill on the face of the balance sheet is still just as necessary as it was in the pre-IFRS reporting regime, the level of attention required to the note form disclosures pertaining to goodwill and the assessment of its potential value impairment has increased substantially. From an auditor's perspective, the new IFRS requirements drive increases in disclosure and, therefore, required effort in the conduct of the audit (Hoogendoorn, 2006). However, it is not clear that enhanced disclosure challenges, particularly those with greatest impact in the notes to the accounts, are universally well dealt with in the context of financial statement audits.

The results of a recent study by Libby *et al.* (2006) indicate a far higher level of sensitivity on the part of Big 4 audit firm partners to adjustments impacting the balance sheet and/or profit and loss statements than those whose impact was limited to the notes only. In

other words, auditors appear more willing to tolerate errors and discrepancies in note form disclosures than in recognised numbers on the primary financial statements. This suggests a hierarchy of vigilance on the part of auditors, in which the highest priority is accorded to minimising misstatements on the face of the profit and loss statement and balance sheet, with lower priority afforded to meticulous policing of information contained in the notes to the accounts. If these results are generalisable beyond the setting in which they were generated, then they suggest that the implementation of FRS 136, replete as it is with complex note form disclosure requirements, represents a useful focal point for research which may yield interesting insights into audit quality in the face of change and complexity.

Since the move to an IFRS-based regime for goodwill reporting has resulted in a framework with far more attention required to note form disclosures than had previously been the case, it is arguable that this very transformation may provide the opportunity for the acquisition of useful insights into audit quality differentials among auditors. Assuming that auditor competence is constant across the Big 4, it is nonetheless possible to entertain the possibility that, faced with a substantially increased detail burden in relation to required note form disclosures under IFRS, the same degree of vigilance exercised in relation to the data recognised in the primary financial statements may not consistently cascade down to the approach taken by audit firms in relation to note form disclosures. Yet this may impact audit quality, since the second key element of that construct is the willingness of auditors, having detected misstatements, to demand their correction.

Thus this research examines the audited disclosures made during the two-year transition period under FRS 136 of a sample of large Malaysian listed corporations who engaged

the Big 4, and attempts to question the homogeneity of audit quality assumption. The next section summarises and concludes this chapter.

## **2.9 Summary and Conclusions**

This chapter has provided a summary of historical and legal conceptualisations of goodwill and has also presented an introduction to goodwill accounting in Malaysia, highlighting the issues surrounding the three research areas as identified in Chapter 1. Chapter 3 will highlight the technical background to the applicable standard for goodwill impairment testing. This is done by emphasising the relevant sections of FRS 136 which is supported by the Basis for Conclusions (BC) on IAS 36. This technical review of the standard is essential for providing a foundation to address the three research areas.

## CHAPTER 3: REVIEW OF THE TECHNICAL REQUIREMENTS OF FRS 136 – *IMPAIRMENT OF ASSETS*

### 3.1 Introduction

The move by the MASB to adopt IFRS is a reflection of Malaysia's commitment to aligning with global accounting standards in order to achieve harmonisation with international practice. As a consequence, Malaysia at last has an accounting standard on goodwill. Under the new accounting framework, Malaysian companies are required to implement all the FRS issued by the MASB in the preparation and presentation of financial statements. The IFRS goodwill accounting treatment is now prescribed in Malaysia's FRS 3 – *Business Combinations*, FRS 136 – *Impairment of Assets*, and FRS 138 – *Intangible Assets*.

The standard on goodwill was issued initially as IAS 36 in July 1998, further amended in December 2002 and last revised by the International Accounting Standards Board (IASB) in March 2004. Then, in 2005 the standard was again revised and the Financial Reporting Standard 136 – *Impairment of Assets* replaced FRS 136<sub>2004</sub> – *Impairment of Assets*. It was required to be applied (a) on acquisition to goodwill and intangible assets acquired in business combinations for which the agreement date is on or after 1 January 2006; (b) to all other assets, for annual periods beginning on or after 1 January 2006.<sup>32</sup>

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<sup>32</sup> See Paragraph IN1 of FRS 136.

The objective<sup>33</sup> of FRS 136 is to prescribe the procedures that an entity applies to ensure that its assets are carried at no more than their recoverable amount. An asset is carried at more than its recoverable amount if its carrying amount exceeds the amount to be recovered through use or sale of the asset. If this is the case, the asset is described as impaired and the Standard requires the entity to recognise an impairment loss. The Standard also specifies when an entity should reverse an impairment loss, and prescribes disclosures. The Standard applies when accounting for impairment for all assets (including goodwill), with the exception of:<sup>34</sup> inventories,<sup>35</sup> construction contract assets,<sup>36</sup> deferred tax assets,<sup>37</sup> employee benefit assets,<sup>38</sup> financial assets,<sup>39</sup> investment properties,<sup>40</sup> agriculture biological assets,<sup>41</sup> deferred acquisition costs and intangible assets under insurance contracts,<sup>42</sup> and non-current assets classified as held for sale.<sup>43</sup> This is because existing standards applicable to these assets contain requirements for their recognition and measurement.<sup>44</sup>

The purpose of this chapter is to provide a technical background to the applicable standard for goodwill impairment testing. This is done by highlighting the relevant sections of FRS 136, supported by the BC on IAS 36 *Impairment of Assets*. It is not intended to replicate the Standard, but rather to highlight relevant sections and define key terms that are immediately

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33 See Paragraph 1 of FRS 136.

34 See Paragraph 2 of FSR 136.

35 See FRS 102 – Inventories.

36 See FRS 111 – Construction Contracts.

37 See FRS 112 – Income Taxes.

38 See FRS 119 – Employee Benefits.

39 See FRS 139 – Financial Instruments: Recognition and Measurement.

40 See FRS 140 – Investment Property.

41 See MASB ED 50 – Agriculture.

42 See FRS 4 – Insurance Contracts.

43 See FRS 5 – Non-current Assets Held for Sale and Discontinued Operations.

44 See Paragraph 3 of FRS 136.

applicable to the research areas stated in Chapter 1. The chapter is organised as follows. The chronology of goodwill reporting practice and regulation in Malaysia up to the current practice of impairment testing under the IFRS framework of FRS 136 is discussed in section 3.2. Section 3.3 reviews the main requirement of FRS 136. Section 3.4 specifies the selection of related paragraphs used in this research and Section 3.5 summarises the chapter.

## **3.2 Goodwill Reporting Practice in Malaysia**

In Malaysia, formal financial reporting standard setting activities commenced during the early 1970s. A technical committee was formed in 1971 with the remit to act on a letter<sup>45</sup> dated 10 September 1971 sent by Bank Negara to the President of the Malaysian Association of Certified Public Accountants<sup>46</sup> (MACPA). The letter pointed out the need for a greater understanding of goodwill and the criteria by which accountants would be prepared to accept the existence and valuation of goodwill.<sup>47</sup> Subsequently, this issue was raised several times by Bank Negara and the Capital Issuance Committee (CIC).<sup>48</sup> After an extended hiatus marked by a high level of inactivity, the Malaysian Institute of Accountants (MIA)<sup>49</sup> was approached to develop a standard in 1987. Consequently, both the MACPA and the MIA committed to working together to develop a Malaysian accounting standard for goodwill.

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45 The Governor of Bank Negara referred to the issue of goodwill in the same letter: 'these analyses give rise to serious reservations about the upward revaluations of certain assets and the creation of goodwill by companies prior to offering their shares to the public or applying for listing on the Stock Exchange. Generally, our Committee tends to view goodwill with skepticism and I would like to have the assurance that the auditing profession would not support the valuation placed on goodwill without full confidence that it is fairly stated'.

46 The MACPA is now known as the Malaysian Institute of Certified Public Accountants (MICPA). It was set up by individuals as a private association in 1958 (Susela, 1999).

47 Minutes of the Technical Committee on 13 October 1971.

48 Part of the Ministry of Finance.

49 MIA was set up in 1987 by the State as a statutory body to regulate the accounting profession.

As part of that agreed course of action, on 1 July 1987 the Presidents of the MIA and the MACPA signed a joint circular to members enclosing a questionnaire inviting comments on a discussion paper on goodwill accounting (Ahmad *et al.*, 2003). The proposed treatments in the discussion papers were very similar to the recommendations of the United Kingdom's (UK's) then current SSAP 22 – *Accounting for Goodwill*, which evinced a preference for the writing off of purchased goodwill against reserves but allowed capitalisation and amortisation as an alternative (Tong, 1992). The discussion paper drew more than 80 responses but the views expressed were so diverse that insufficient consensus to support the development of an exposure draft was achieved. Consequently, the MIA and the MACPA decided to defer the issuance of a standard until some later time when opinion on the matter had congealed into a more coherent and consistent form.

The two bodies did not pursue the matter for several years until there was further prompting from the CIC. In 1991, the CIC decided to take matters into its own hands by including in its guidelines sub-section 17.51 (CIC, 1991), which specifically states that goodwill should be treated in accordance with relevant accounting guidelines or accounting standards acceptable to the CIC. However, this was a modest step, leaving open far more questions (for example, in relation to the recognition and measurement criteria for intangibles such as goodwill) than it answered.

Perhaps spurred on by the CIC's interest in the matter, the MIA and the MACPA commissioned a study<sup>50</sup>, the objective of which was to yield clear insights into goodwill

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50 A survey conducted on 276 published annual reports for companies listed on the main board of the Kuala Lumpur Stock Exchange (KLSE). It revealed that 155 companies included a goodwill accounting policy.

accounting and reporting practices in Malaysia. The study indicated the existence of a diversity of approaches to goodwill accounting and reporting treatments being adopted by listed companies in Malaysia. This revelation stimulated the preparation of another discussion paper on goodwill by the MIA and the MICPA, issued in late 1991.<sup>51</sup> Based on the comments obtained in response to this document, MAS 6 – *Accounting for Goodwill* (MAS 6) was issued as an exposure draft by the MIA in September 1992 (Yap & Guan, 1997). The integral features of MAS 6 were based on the UK's Exposure Draft 47 – *Accounting for Goodwill*, which required that goodwill be capitalised and amortised over a period of no longer than 25 years.

In April 1993, MAS 6 was issued as a standard to be operative for periods commencing on or after 1 January 1995. However, due to substantial lobbying pressure and a series of requests by influential bodies including the MACPA for a delay in the adoption of the standard, the effective operative date of MAS 6 was delayed to 1 January 1997 (Susela, 1999). Nonetheless, controversies persisted and in early 1997 the Minister of Finance instructed that the implementation of MAS 6 be deferred for another two years. According to this directive, MAS 6 was not to become effective until 1999.

A key development in the regulation of financial reporting in Malaysia transpired in July 1997, when the *Financial Reporting Act 1997* was passed and the MASB was formed with a remit to issue legally binding accounting standards. In a subsequent related reform, the *Companies Act 1965* was amended to require compliance with approved accounting standards. However, since no operative standard on goodwill existed, this series of initiatives did not

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51 A total of 112 responses were received, of which 76% preferred the amortisation method, 22% preferred permanent item and 2% preferred immediate write-off.



immediately transform practice in Malaysia, but rather, sowed the seeds for the creation of a more consistent and rigorously enforced reporting framework as future standards were promulgated. As matters transpired, it was to be some time before this had direct implications for the accounting and reporting arrangements germane to goodwill. The decision by the Minister of Finance in 1997 to delay the implementation of MAS 6, given the subsequent creation of the MASB, effectively resulted in MAS 6 being rendered void, with no alternative standard produced to fill its place.

Despite these missteps, some progress towards clarification and codification of goodwill reporting arrangements occurred in January 2001 when reporting standard MAS 22 – *Business Combinations* (MAS 22) was made effective. However, though mentioned in the standard, the question of goodwill was ultimately tangential to the chief thrust of MAS 22's provisions, with the result that the standard lacked detailed coverage on the matter. Thus, while foreshadowing the promulgation of a standard specifically directed towards goodwill, the guidance on the subject in MAS 22 was limited to the directive that goodwill '... should be treated in accordance with the generally accepted accounting principles on goodwill'. (Paragraph 77 of MAS 22). But as we have seen, these were anything but clear or consistent. Thus, it is strongly arguable that no material progress in relation to goodwill reporting was made in Malaysia over the span of three decades.

Some attempt to redress this was evident in the MASB's issuance in November 2000 of an exposure draft on the subject of goodwill accounting, ED 28 – *Accounting for Goodwill*. The central thrust of that document was its recommendation that purchased goodwill be recognised and amortised on a straight-line basis over a period not exceeding 20 years. The

exposure draft was intended to be operative from 1 July 2001, but again the initiative failed due to changes in the international domain. It was principally the FASB's decision to radically alter goodwill accounting and reporting arrangements via the promulgation of SFAS 141 – *Business Combination* and SFAS 142 – *Goodwill and Other Intangible Assets*.

The key elements of those two standards were the removal, pursuant to SFAS 141, of the capacity to account for acquisition transactions using the pooling of interests method combined with the adoption pursuant to SFAS 142 of an impairment testing-based regime for goodwill, replacing the former capitalise and amortise regime.

Ultimately, it was decided that Malaysian companies would adopt a local version of IFRS<sup>52</sup> with effect from 1 January 2006 to engender progress on the goodwill reporting front. Under the new framework, Malaysian companies are required to implement all the FRS issued by the MASB in the preparation and presentation of financial statements. The move by the MASB to adopt IFRS is a reflection of Malaysia's commitment to align with global accounting standards in order to achieve harmonisation with international practice.

As a consequence of the adoption of IFRS, Malaysia at last has an accounting standard on goodwill. The IFRS goodwill accounting treatment is now prescribed in Malaysia's FRS 3 – *Business Combinations*, and FRS 136. These standards initiate three significant changes, which substantially impact the treatment of goodwill in Malaysia. First, goodwill acquired in a business combination is not to be amortised but instead tested for impairment annually or whenever

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52 The substance of what might be termed FRS is essentially identical to the substance of IFRS – but with transitional arrangements designed to minimise the disruption associated with the move to IFRS, given local conditions.

events or circumstances indicate its value may have been impaired (FRS 136). Second, all business combinations within the scope of the standards are to be accounted for using the purchase method (FRS 3). Third, FRS 136 prohibits the recognition of internally generated goodwill and the reversal of write-downs on purchased goodwill.

FRS 136 is intended to improve financial reporting transparency by reflecting more clearly the underlying economics of goodwill. In order to realise improved financial reporting transparency, FRS 136 requires that goodwill should, from the acquisition date, be allocated to cash generating units (CGUs) of the combined entity. A CGU is the smallest identifiable group of assets that generates cash inflows, which are substantially independent of cash inflows from other assets or group of assets. From an internal oversight perspective, CGUs represent the lowest level within the entity at which goodwill is monitored for internal management purposes. Whether impairment of goodwill has occurred is determined via a comparison of an estimate of the recoverable amount of each CGU to which goodwill has been allocated<sup>53</sup> and the book value of CGU assets, with impairment charges being recognised wherever CGU book values exceed CGU recoverable amount estimates.

The requirement that this new Standard be adopted as the basis for goodwill accounting and reporting represents a substantial challenge to Malaysian companies and their auditors. After several decades in which a laissez-faire approach to the problem represented the dominant paradigm, the highly prescriptive and technical provisions of FRS 136 represent a substantial variation from past practice. This in turn gives rise to questions about the extent to which Malaysian companies and their auditors have fared during the process of transition to a

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<sup>53</sup> This amount may be estimated on a fair value less costs to sell (FVLCS) or a VIU basis.

complex new reporting regime and how this has impacted upon the quality and consistency of reports produced pursuant to that new regime. The next section will review the main requirement of FRS 136.

### **3.3 The Main Requirements of FRS 136 – *Impairment of Assets***

FRS 136 includes requirements for identifying an impaired asset, measuring its recoverable amount, recognising or reversing any resulting impairment loss, and disclosing information on impairment losses or reversals of impairment losses. More specifically, this Standard contains five main requirements and is structured as follows:

- (a) Paragraphs 8–17 specify when a recoverable amount shall be determined;
- (b) Paragraphs 18–57 set out the requirements for measuring the recoverable amount;
- (c) Paragraphs 58–108 set out the requirements for recognising and measuring impairment losses. Recognition and measurement of impairment losses for individual assets other than goodwill are dealt with in Paragraphs 58–64. Paragraphs 65–108 deal with the recognition and measurement of impairment losses for CGUs and goodwill.
- (d) Paragraphs 109–116 set out the requirements for reversing an impairment loss recognised in prior periods for an asset or a CGU. Additional requirements for an individual asset are set out in Paragraphs 117–121, for a CGU in Paragraphs 122 and 123, and for goodwill in Paragraphs 124 and 125.
- (e) Paragraphs 126–133 specify the information to be disclosed about impairment losses and reversals of impairment losses for assets and CGUs. Paragraphs 134–137 specify

additional disclosure requirements for CGUs to which goodwill or intangible assets with indefinite useful lives have been allocated for impairment testing purposes.

A review of each main requirement is described in the following sub-sections.

### **3.3.1 When a Recoverable Amount Shall be Determined**

An impairment test is required for all assets when there is an indication of impairment at the reporting date. Paragraph 8 of FRS 136 states that an asset is impaired when its carrying amount exceeds its recoverable amount. An entity shall assess at each reporting date whether there is any indication that an asset may be impaired. If any such indication exists, the entity shall estimate the recoverable amount of the asset (Paragraph 9 of FRS 136). Accordingly, Paragraph 10 of FRS 136 explains that there are some assets for which an impairment test must be undertaken every year, irrespective of whether there is any indication of impairment. These assets are intangible assets with an indefinite useful life, intangible assets that are not yet available for use and goodwill acquired in a business combination. This impairment test may be performed at any time during an annual period, provided it is performed at the same time every year.

In determining whether an asset may be impaired, FRS 136 provides guidance in the form of a list of the internal and external indicators of impairment that must, at a minimum, be considered. Paragraph 12 of FRS 136 describes that in assessing whether there is any indication that an asset may be impaired, an entity shall consider, as a minimum, the following indications:

External sources of information – The following external sources of information may indicate that an asset is impaired:

- (a) during the period, an asset's market value has declined significantly more than would be expected as a result of the passage of time or normal use. Such a decline could be caused by a decrease in the external market value for an asset, or a decrease in the sales price of items produced by a group of assets;
- (b) significant changes with an adverse effect on the entity have taken place during the period, or will take place in the near future, in the technological, market, economic or legal environment in which the entity operates or in the market to which an asset is dedicated;
- (c) market interest rates or other market rates of return on investments have increased during the period, and those increases are likely to affect the discount rate used in calculating an asset's VIU and decrease the asset's recoverable amount materially.
- (d) the carrying amount of the net assets of the entity is more than its market capitalisation.

Internal sources of information – Three sources of information based on events within the entity itself are listed:

- (e) evidence is available of obsolescence or physical damage of an asset;
- (f) significant changes with an adverse effect on the entity have taken place during the period, or are expected to take place in the near future, in the extent to which, or manner in which, an asset is used or is expected to be used. These changes include

the asset becoming idle, plans to discontinue or restructure the operation to which an asset belongs, plans to dispose of an asset before the previously expected date, and reassessing the useful life of an asset as finite rather than indefinite;

(g) evidence is available from internal reporting that indicates that the economic performance of an asset is, or will be, worse than expected.

### **3.3.2 Requirements for Measuring Recoverable Amount**

When there is an indication that an asset may be impaired, the asset's recoverable amount must be calculated. Paragraph 18 of FRS 136 defines the recoverable amount as the higher of an asset's or CGU's fair value less costs to sell (FVLCS) and its VIU. This provides reporting entities with a choice between fair value and VIU as a basis for recoverable amount estimation.

#### **1. Fair Value Less Costs to Sell**

Paragraph 6 of FRS 136 defines FVLCS as the amount obtainable from the sale of an asset or CGU in an arm's length transaction between knowledgeable, willing parties, less the costs of disposal.

The best evidence of an asset's FVLCS is a price in a binding sale agreement in an arm's length transaction, adjusted for incremental costs that would be directly attributable to the disposal of the asset.<sup>54</sup>

- If there is no binding sale agreement but an asset is traded in an active market, FVLCS is the asset's market price less the costs of disposal. The appropriate market price is usually the current bid price. When current bid prices are unavailable, the price of the most recent transaction may provide a basis from which to estimate FVLCS, provided that there has not been a significant change in economic circumstances between the transaction date and the date at which the estimate is made.<sup>55</sup>
- If there is no binding sale agreement or active market for an asset, FVLCS is based on the best information available to reflect the amount that an entity could obtain, at the balance sheet date, from the disposal of the asset in an arm's length transaction between knowledgeable, willing parties, after deducting the costs of disposal. In determining this amount, an entity considers the outcome of recent transactions for similar assets within the same industry.<sup>56</sup>

A minority of commentators on E55 – *Impairment of Assets* supported that the only appropriate measurement for the recoverable amount of an asset is fair value (based on observable market prices or, if no observable market prices exist, estimated considering prices for similar assets and the results of discounted future cash flow calculations).<sup>57</sup> However, Paragraph BC17 of the

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54 See Paragraph 25 of FRS 136.

55 See Paragraph 26 of FRS 136.

56 See Paragraph 27 of FRS 136

57 See Paragraph BC16 of the BC on IAS 36.



Basis for Conclusions (BC) on IAS 36 explained that the International Accounting Standards Committee (IASC) rejected the proposal for the following reasons:

- (a) The IASC believed that no preference should be given to the market's expectation of the recoverable amount of an asset (basis for fair value when market values are available and for net selling price) over a reasonable estimate performed by the individual enterprise that owns the asset (basis for fair value when market values are not available and for VIU).
- (b) Market values are a way to estimate fair value but only if they reflect the fact that both parties, the acquirer and the seller, are willing to enter into a transaction. If an enterprise can generate greater cash flows by using an asset than by selling it, it would be misleading to base the recoverable amount on the market price of the asset because a rational enterprise would not be willing to sell the asset. Therefore, recoverable amount should not refer only to a transaction between two parties (which is unlikely to happen) but should also consider an asset's service potential from its use by the enterprise.
- (c) The IASC believed that in assessing the recoverable amount of an asset, it is the amount that an enterprise can expect to recover from that asset, including the effect of synergy with other assets, that is relevant.

However, if it is not possible to obtain reliable evidence regarding the assumptions and techniques that market participants would use, then it would be difficult to conclude that fair value can be estimated with sufficient reliability for impairment testing purposes. According to

Paragraph BC 18 of the BC on IAS 36, if no deep and liquid market exists for an asset, the IASC considers that VIU would be a reasonable estimate of fair value. This is likely to happen for many assets within the scope of IAS 36: observable market prices are unlikely to exist for goodwill, most intangible assets, and many items of property, plant and equipment. Therefore, it is likely that the recoverable amount of these assets, determined in accordance with IAS 36, will be similar to the recoverable amount based on the fair value of these assets.

## **2. Value in Use**

It is not possible to determine FVLCS because there is no basis for making a reliable estimate of the amount obtainable from the sale of the asset in an arm's length transaction between knowledgeable and willing parties. In this case, the entity may use the asset's VIU as its recoverable amount.<sup>58</sup> Paragraph 6 of FRS 136 defines VIU as the present value of the future cash flows expected to be derived from an asset or CGU. There are five elements to be reflected in the calculation of the VIU as stated in Paragraph 30 of FRS 136 and they are:

- (a) an estimate of the future cash flows the entity expects to derive from the asset;
- (b) expectations about possible variations in the amount or timing of those future cash flows;
- (c) the time value of money, represented by the current market risk-free rate of interest;
- (d) the price for bearing the uncertainty inherent in the asset; and

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<sup>58</sup> See Paragraph 20 of FRS 136.

- (e) other factors, such as illiquidity, that market participants would reflect in pricing the future cash flows the entity expects to derive from the asset.

Few commentators on E55 – *Impairment of Assets* supported the notion that VIU is the only appropriate measurement for the recoverable amount of an asset.<sup>59</sup> However, Paragraph BC22 of the BC on IAS 36 explained that the IASC rejected this proposal because:

- (a) If an asset's net selling price is higher than its VIU, a rational enterprise will dispose of the asset. In this situation, it is logical to base the recoverable amount on the asset's net selling price to avoid recognising an impairment loss that is unrelated to economic reality.
- (b) If an asset's net selling price is greater than its VIU, but management decides to keep the asset, the extra loss (the difference between net selling price and VIU) properly falls in later periods because it results from management's decision in these later periods to keep the asset.

## **(I) Basis for Estimates of Future Cash Flows**

FRS 136 provides guidance for measuring future cash flows.

- According to Paragraph 33 of FRS 136, in measuring VIU an entity shall:
  - (a) base cash flow projections on reasonable and supportable assumptions that represent management's best estimate of the range of economic conditions that will

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<sup>59</sup> See Paragraph BC21 of the BC on IAS 36.

exist over the remaining useful life of the asset. Greater weight shall be given to external evidence;

(b) base cash flow projections on the most recent financial budgets/forecasts approved by management. Projections based on these budgets/forecasts shall cover a maximum period of five years, unless a longer period can be justified;

(c) 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 shall 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.

- Management assesses the reasonableness of the assumptions on which its current cash flow projections are based by examining the causes of differences between past cash flow projections and actual cash flows. Management shall ensure that the assumptions on which its current cash flow projections are based are consistent with past actual outcomes, provided the effects of subsequent events or circumstances that did not exist when those actual cash flows were generated make this appropriate.<sup>60</sup>
- Detailed, explicit and reliable financial budgets/forecasts of future cash flows for periods longer than five years are generally not available. For this reason, management's estimates of future cash flows are based on the most recent budgets/forecasts for a

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<sup>60</sup> See Paragraph 34 of FRS 136.

maximum of five years. Management may use cash flow projections based on financial budgets/forecasts over a period longer than five years if it is confident that these projections are reliable and it can demonstrate its ability, based on past experience, to forecast cash flows accurately over that longer period.<sup>61</sup>

- Cash flow projections until the end of an asset's useful life are estimated by extrapolating the cash flow projections based on the financial budgets/forecasts using a growth rate for subsequent years. This rate is steady or declining, unless an increase in the rate matches objective information about patterns over a product or industry lifecycle. If appropriate, the growth rate is zero or negative.<sup>62</sup>

## **(II) Composition of Estimates of Future Cash Flows**

According to Paragraph 39 of FRS 136, estimates of future cash flows shall include:

- (a) projections of cash inflows from the continuing use of the asset;
- (b) projections of cash outflows that are necessarily incurred to generate the cash inflows from continuing use of the asset (including cash outflows to prepare the asset for use) and can be directly attributed, or allocated on a reasonable and consistent basis, to the asset; and
- (c) net cash flows, if any, to be received (or paid) for the disposal of the asset at the end of its useful life.

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<sup>61</sup> See Paragraph 35 of FRS 136.

<sup>62</sup> See Paragraph 36 of FRS 136.

**(III) Discount Rate**

Paragraph 55 of FRS 136 defined that the discount rate (rates) shall be a pre-tax rate (rates) that reflect(s) current market assessments of:

- (a) the time value of money; and
- (b) the risks specific to the asset for which the future cash flow estimates have not been adjusted.

A rate that reflects current market assessments of the time value of money and the risks specific to the asset is the return that investors would require if they were to choose an investment that would generate cash flows of amounts, timing and risk profile equivalent to those that the entity expects to derive from the asset. This rate is estimated from the rate implicit in current market transactions for similar assets or from the weighted average cost of capital of a listed entity that has a single asset (or a portfolio of assets) similar in terms of service potential and risks to the asset under review. However, the discount rate(s) used to measure an asset's VIU shall not reflect risks for which the future cash flow estimates have been adjusted. Otherwise, the effect of some assumptions will be double-counted.<sup>63</sup>

According to Paragraph 57 of FRS 136, when an asset-specific rate is not directly available from the market, an entity uses surrogates to estimate the discount rate. The entity

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<sup>63</sup> See Paragraph 56 of FRS 136.

may consider one of the following rates as a 'starting point' for its estimation.<sup>64</sup> The rates would then be adjusted as discussed below. The starting-point rates include:

- the weighted average cost of capital of the entity determined using techniques such as the Capital Asset Pricing Model (CAPM);
- the entity's incremental borrowing rate; and
- other market borrowing rates.

This starting-point rate is then adjusted:<sup>65</sup>

- to reflect the way that the market would assess the specific risks associated with the asset's estimated cash flows (such as country risk, currency risk and price risk); and
- to exclude risks that are not relevant to the asset's estimated cash flows or for which the estimated cash flows have been adjusted.

If the starting-point rate is post-tax, it must be adjusted to arrive at a pre-tax rate.<sup>66</sup> A single discount rate is used to estimate the VIU of an asset. Separate discount rates for different future periods should be used, however, where VIU is sensitive to a difference in risks for different periods or to the term structure of interest rates.<sup>67</sup>

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<sup>64</sup> See Paragraph A17 of FRS 136.

<sup>65</sup> See Paragraph A18 of FRS 136.

<sup>66</sup> See Paragraph A20 of FRS 136.

<sup>67</sup> See Paragraph A21 of FRS 136.

According to Paragraph BC53 of the BC on IAS 36, as a consequence of discounting future cash flows the IASC decided:

- (a) To reject a discount rate based on a historical rate, i.e. the effective rate implicit when an asset was acquired. A subsequent estimate of the recoverable amount has to be based on prevailing interest rates because management's decisions about whether to keep the asset are based on prevailing economic conditions. Historical rates do not reflect prevailing economic conditions.
- (b) To reject a discount rate based on a risk-free rate, unless the future cash flows have been adjusted for all the risks specific to the asset.
- (c) To require that the discount rate should be a rate that reflects current market assessments of the time value of money and the risks specific to the asset. This rate is the return that investors would require if they were to choose an investment that would generate cash flows of amounts, timing and risk profile equivalent to those that the enterprise expects to derive from the asset.

In principle, VIU should be an enterprise-specific measure determined in accordance with the enterprise's own view of the best use of that asset. Logically, the discount rate should be based on the enterprise's own assessment both of the time value of money and of the risks specific to the future cash flows from the asset. However, the IASC believed that such a rate could not be verified objectively. Therefore, IAS 36 requires that the enterprise should make its own estimate of future cash flows but that the discount rate should reflect, as far as possible, the market's assessment of the time value of money. Similarly, the discount rate should reflect the



premium that the market would require from uncertain future cash flows based on the distribution estimated by the enterprise.<sup>68</sup>

### **3.3.3 Requirement for Recognising and Measuring Impairment Losses**

According to Paragraph 65 of FRS 136, Paragraphs 66–108 of FRS 136 set out the requirements for identifying the CGU to which an asset belongs and determine the carrying amount of, and recognise impairment losses for, CGUs and goodwill.

#### **1. Identifying the CGU to which an Asset Belongs**

According to Paragraph 66 of FRS 136, if there is any indication that an asset may be impaired, the recoverable amount shall be estimated for the individual asset. If it is not possible to estimate the recoverable amount of the individual asset, an entity shall determine the recoverable amount of the CGU to which the asset belongs (the asset's CGU).

Paragraph BC113 of the BC on IAS 36 explained that some support the principle of determining the recoverable amount on an individual asset basis only. This view was expressed by a few commentators on E55 *Impairment of Assets*. They argued that:

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<sup>68</sup> See Paragraph BC54 of the BC on IAS 36.

- (a) it would be difficult to identify CGUs at a level other than the business as a whole and, therefore, impairment losses would never be recognised for individual assets; and
- (b) it should be possible to recognise an impairment loss, regardless of whether an asset generates cash inflows that are independent from those of other assets or groups of assets.

The IASC acknowledged that identifying the lowest level of independent cash inflows for a group of assets would involve judgment. However, the IASC believed that the concept of CGUs is a matter of fact: assets work together to generate cash flows.<sup>69</sup> Paragraph BC115 of the BC on IAS 36 explained further, in response to requests from commentators on E55 – *Impairment of Assets*, IAS 36 includes additional guidance and examples for identifying CGUs and for determining the carrying amount of CGUs. IAS 36 emphasises that CGUs should be identified for the lowest level of aggregation of assets possible. Identification of an asset's CGU involves judgment. If the recoverable amount cannot be determined for an individual asset, an entity identifies the lowest aggregation of assets that generate largely independent cash inflows. Paragraph 72 of FRS 136 explains that CGUs shall be identified consistently from period to period for the same asset or types of assets, unless a change is justified.

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<sup>69</sup> See Paragraph BC114 of the BC on IAS 36.

## **2. Recoverable Amount and Carrying Amount of a CGU**

The carrying amount of a CGU shall be determined on a basis consistent with the way in which the recoverable amount of the CGU is determined.<sup>70</sup> The carrying amount of a CGU:<sup>71</sup>

- (a) includes the carrying amount of only those assets that can be attributed directly, or allocated on a reasonable and consistent basis, to the CGU and will generate the future cash inflows used in determining the CGUs VIU; and
- (b) does not include the carrying amount of any recognised liability, unless the recoverable amount of the CGU cannot be determined without consideration of this liability.

This is consistent with the calculation of FVLCS and VIU of a CGU which are determined by excluding cash flows that relate to assets that are not part of the CGU and liabilities that have been recognised.

### **(I) Allocating Goodwill to CGUs**

For the purpose of impairment testing, goodwill acquired in a business combination shall, from the acquisition date, be allocated to each of the acquirer's CGUs, or groups of CGUs, that are expected to benefit from the synergies of the combination, irrespective of whether other assets

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<sup>70</sup> See Paragraph 75 of FRS 136.

<sup>71</sup> See Paragraph 76 of FRS 136.

or liabilities of the acquiree are assigned to those units or groups of units. Each unit or group of units to which the goodwill is so allocated shall:<sup>72</sup>

- (a) represent the lowest level within the entity at which the goodwill is monitored for internal management purposes; and
- (b) not be larger than a segment based on either the entity's primary or the entity's secondary reporting format determined in accordance with FRS 114<sub>2004</sub> – *Segment Reporting*.

Goodwill acquired in a business combination represents a payment made by an acquirer in anticipation of future economic benefits from assets that are not capable of being individually identified and separately recognised. Goodwill does not generate cash flows independently of other assets or groups of assets, and often contributes to the cash flows of multiple CGUs. Goodwill sometimes cannot be allocated on a non-arbitrary basis to individual CGUs, but only to groups of CGUs. As a result, the lowest level within the entity at which the goodwill is monitored for internal management purposes sometimes comprises a number of CGUs to which the goodwill relates, but to which it cannot be allocated.<sup>73</sup>

The objective of the IASB in setting these conditions was to require entities to allocate goodwill to the lowest possible level. This was in response to the respondents of the Exposure Draft's proposed amendments to IAS 36. They raised additional concerns regarding the allocation of goodwill for impairment testing purposes and mandated that goodwill be

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<sup>72</sup> See Paragraph 80 of FRS 136.

<sup>73</sup> See Paragraph 81 of FRS 136.

allocated to at least the appropriate segment level because it will often result in arbitrary allocations, and entities would need to develop new or additional reporting systems.<sup>74</sup> Then, the Board reaffirmed the conclusion it reached when developing the Exposure Draft, that requiring goodwill to be allocated to at least the segment level is necessary to avoid entities erroneously concluding that, when a business combination enhances the value of all of the acquirer's pre-existing CGUs, any goodwill acquired in that combination could be tested for impairment only at the level of the entity itself.<sup>75</sup>

Paragraph 84 of FRS 136 states that the initial allocation of goodwill recognised in a business combination should be completed before the end of the annual period in which the business combination is affected. If this is not achieved, that initial allocation shall be completed before the end of the first annual period beginning after the acquisition date. Paragraph BC151 of the BC on IAS 36 states that this rule differs from IFRS 3 *Business Combinations*, which requires that if the initial accounting for a business combination can be determined only provisionally by the end of the period in which the combination is effected, the acquirer should:

- (a) account for the combination using those provisional values; and
- (b) recognise any adjustments to those provisional values as a result of completing the initial accounting within 12 months of the acquisition date.

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<sup>74</sup> Paragraph BC145 of the BC on IAS 36.

<sup>75</sup> Paragraph BC146 of the BC on IAS 36.

Some respondents to the Exposure Draft questioned why the period to complete the initial allocation of goodwill should differ from the period to complete the initial accounting for a business combination. The Board's view is that acquirers should be allowed a longer period to complete the goodwill allocation, because that allocation often might not be able to be performed until after the initial accounting for the combination is complete. This is because the cost of the combination or the fair values at the acquisition date of the acquiree's identifiable assets, liabilities or contingent liabilities, and therefore the amount of goodwill acquired in the combination, would not be finalised until the initial accounting for the combination in accordance with IFRS 3 is complete.<sup>76</sup>

## **(II) Testing CGUs with Goodwill for Impairment**

A CGU to which goodwill has been allocated shall be tested for impairment annually, and whenever there is an indication that the unit may be impaired. The impairment tests are carried out by comparing the carrying amount of the unit, including the goodwill, with the recoverable amount of the unit. If the recoverable amount of the unit exceeds the carrying amount of the unit, the unit and the goodwill allocated to that unit shall be regarded as not impaired. If the carrying amount of the unit exceeds the recoverable amount of the unit, the entity shall recognise the impairment loss in accordance with Paragraph 104 of FRS 136.<sup>77</sup>

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<sup>76</sup> Paragraph BC152 of the BC on IAS 36.

<sup>77</sup> See Paragraph 90 of FRS 136.

**(III) Timing of Impairment Tests**

The annual impairment test for a CGU to which goodwill has been allocated may be performed at any time during an annual period, provided the test is performed at the same time every year. Different CGUs may be tested for impairment at different times. However, if some or all of the goodwill allocated to a CGU was acquired in a business combination during the current annual period, that unit shall be tested for impairment before the end of the current annual period.<sup>78</sup>

If the assets constituting the CGU to which goodwill has been allocated are tested for impairment at the same time as the unit containing the goodwill, they shall be tested for impairment before the unit containing the goodwill. Similarly, if the CGUs constituting a group of CGUs to which goodwill has been allocated are tested for impairment at the same time as the group of units containing the goodwill, the individual units shall be tested for impairment before the group of units containing the goodwill.<sup>79</sup> As noted by the IASB,<sup>80</sup> the Board observed that assets or CGUs making up a unit or group of units to which goodwill has been allocated might need to be tested for impairment at the same time as the unit or group of units containing the goodwill when there is an indication of a possible impairment of the asset or smaller unit. The Board concluded that to assess whether the unit or group of units containing the goodwill, and therefore whether the goodwill, is impaired, the carrying amount of the unit or group of units containing the goodwill would need first to be adjusted by recognising any impairment losses relating to the assets or smaller units within that unit or group of units.

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<sup>78</sup> See Paragraph 96 of FRS 136.

<sup>79</sup> See Paragraph 97 of FRS 136.

<sup>80</sup> See Paragraph BC175 of BC on IAS 36

**(IV) Impairment Loss for a CGU**

Paragraph 104 of FRS 136 states that an impairment loss shall be recognised for a CGU if, and only if, the recoverable amount of the unit (group of units) is less than the carrying amount of the unit (group of units). The impairment loss shall be allocated to reduce the carrying amount of the assets of the unit (group of units) in the following order:

- (a) first, to reduce the carrying amount of any goodwill allocated to the CGU (group of units); and
- (b) then, to the other assets of the unit (group of units) pro rata on the basis of the carrying amount of each asset in the unit (group of units).

These reductions in carrying amounts shall be treated as impairment losses on individual assets and recognised in accordance with Paragraph 60 of FRS 136, which an impairment loss shall be recognised immediately in profit or loss, unless the asset is carried at revalued amount in accordance with another standard.

Paragraph 105 of FRS 136 provides some restrictions on write-downs to individual assets. In allocating an impairment loss in accordance with Paragraph 104 of FRS 136, an entity shall not reduce the carrying amount of an asset below the highest of:

- (a) its FVLCS (if determinable);
- (b) its VIU (if determinable); and
- (c) zero.



The amount of the impairment loss that would otherwise have been allocated to the asset shall be allocated pro rata to the other assets of the unit (group of units).

### 3.3.4 Requirements for Reversing an Impairment Loss Recognised

An impairment loss recognised for goodwill shall not be reversed in a subsequent period.<sup>81</sup> The reasons for this decision by the IASB are detailed in Paragraphs BC188 and BC189 of the BC on IAS 36.

Most respondents to the Exposure Draft agreed that reversals of impairment losses for goodwill should be prohibited. Those that disagreed argued that reversals of impairment losses for goodwill should be treated in the same way as reversals of impairment losses for other assets, but limited to circumstances in which the impairment loss was caused by specific events beyond the entity's control.<sup>82</sup> In revising IAS 36, the Board noted that IAS 38 – *Intangible Assets* prohibits the recognition of internally generated goodwill. Therefore, if reversals of impairment losses for goodwill were permitted, an entity would need to establish the extent to which a subsequent increase in the recoverable amount of goodwill is attributable to the recovery of the acquired goodwill within a CGU, rather than an increase in the internally generated goodwill within the unit. The Board concluded that this will seldom, if ever, be possible. Because the acquired goodwill and internally generated goodwill contribute jointly to the same cash flows, any subsequent increase in the recoverable amount of the acquired goodwill is

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<sup>81</sup> See Paragraph 124 of FRS 136.

<sup>82</sup> See Paragraph BC188 of the BC on IAS 36.

indistinguishable from an increase in the internally generated goodwill. Even if the specific external event that caused the recognition of the impairment loss is reversed, it will seldom, if ever, be possible to determine that the effect of that reversal is a corresponding increase in the recoverable amount of the acquired goodwill. Therefore, the Board concluded that reversals of impairment losses for goodwill should be prohibited.<sup>83</sup>

### **3.3.5 Information to be disclosed about Impairment Losses**

#### **1. General**

Under Paragraph 126 of FRS 136, for each class of assets (defined as a group of assets of similar nature and used in the operations of the entity), the financial statements should disclose the amount of:

- a) Impairment losses recognised in profit and loss during the period and the line item(s) of the income statement in which those impairment losses are included.
- b) Reversals of impairment losses recognised in profit and loss during the period and the line item (s) of the income statement in which those impairment losses are reversed.
- c) Impairment losses on revalued assets directly in equity during the period.
- d) Reversals of impairment losses on revalued assets recognised directly in equity during the period.

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<sup>83</sup> See Paragraph BC189 of the BC on IAS 36.

The disclosure required by Paragraph 126 of FRS 136 may be presented or included in the reconciliation of the carrying amounts of the property, plant and equipment, intangible assets, or elsewhere as appropriate at the beginning and end of the period.<sup>84</sup>

## **2. Entities Reporting Segment Information**

Paragraph 129 of FRS 136 details the information to be disclosed for each reporting segment in accordance with FRS 14 – *Segment Reporting*:

- (a) the amount of impairment losses recognised in profit and loss and directly in equity during the period; and
- (b) the amount of reversals of impairment losses recognised in profit and loss and directly in equity during the period.

## **3. Impairment Losses/Reversals Individually Material to the Financial Statements**

Under Paragraph 130 of FRS 136 an entity shall disclose the following for each material impairment loss recognised or reversed during the period for an individual asset, including goodwill, or a CGU:

- (a) The events and circumstances that led to the recognition or reversal of the impairment loss.

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<sup>84</sup> See Paragraph 128 of FRS 136.

- (b) The amount of the impairment loss recognised or reversed.
- (c) For an individual asset:
  - (i) the nature of the asset; and
  - (ii) if the entity reports segment information in accordance with FRS 108 – *Accounting Policies, Changes in Accounting Estimates and Errors*, the reportable segment to which the asset belongs.
- (d) For a CGU:
  - (i) a description of the CGU (such as whether it is a product line, a plant, a business operation, a geographical area, or a reportable segment as defined in FRS 108;
  - (ii) the amount of the impairment loss recognised or reversed by a class of assets and, if the entity reports segment information in accordance with FRS 108, by reportable segment; and
  - (iii) if the aggregation of assets for identifying the CGU has changed since the previous estimate of the CGU's recoverable amount (if any), a description of the current and former way of aggregating assets and the reasons for changing the way the CGU is identified.
- (e) Whether the recoverable amount of the asset (CGU) is its FVLCS or its VIU.
- (f) If the recoverable amount is FVLCS, the basis used to determine FVLCS (such as whether fair value was determined by reference to an active market).

- (g) If the recoverable amount is VIU, the discount rate(s) used in the current estimate and previous estimate (if any) of VIU.

#### **4. Other Impairment Losses/Reversals Material in Aggregate to the Financial Statements**

Under Paragraph 131 of FRS 136 an entity shall disclose the following information for the aggregate impairment losses and the aggregate reversals of impairment losses recognised during the period for which no information is disclosed in accordance with Paragraph 130 of FRS 136:

- (a) The main classes of assets affected by impairment losses and the main classes of assets affected by reversals of impairment losses.
- (b) The main events and circumstances that led to the recognition of these impairment losses and reversals of impairment losses.

Under Paragraph 132 of FRS 136 an entity is encouraged to disclose assumptions used to determine the recoverable amount of assets (CGUs) during the period. However, Paragraph 134 of FRS 136 requires an entity to disclose information about the estimates used to measure the recoverable amount of a CGU when goodwill or an intangible asset with an indefinite useful life is included in the carrying amount of that unit.

## 5. Unallocated Goodwill

Paragraph 133 of FRS 136 states that if any portion of the goodwill acquired in a business combination during the period has not been allocated to a CGU (group of units) at the reporting date, the amount of the unallocated goodwill shall be disclosed together with the reasons why that amount remains unallocated.

## 6. CGUs Containing Goodwill or Intangible Assets with Indefinite Useful Lives

Under Paragraph 134 of FRS 136 an entity shall disclose the information required by (a)–(f) for each CGU (group of units) for which the carrying amount of goodwill or intangible assets with indefinite useful lives allocated to that unit (group of units) is significant in comparison with the entity's total carrying amount of goodwill or intangible assets with indefinite useful lives.

- (a) The carrying amount of goodwill allocated to the unit (group of units).
- (b) The carrying amount of intangible assets with indefinite useful lives allocated to the unit (group of units).
- (c) The basis on which the unit's (group of units') recoverable amount has been determined (i.e. VIU or FVLCS).
- (d) If the unit's (group of units') recoverable amount is based on VIU:
  - i. A description of each key assumption on which management has based its cash flow projections for the period covered by the most recent budgets/forecasts. Key assumptions are those to which the unit's (group of units') recoverable amount is most sensitive.

- ii. A description of management's approach to determining the value(s) assigned to each key assumption, whether those value(s) reflect past experience or, if appropriate, are consistent with external sources of information, and, if not, how and why they differ from past experience or external sources of information.
  - iii. The period over which management has projected cash flows based on financial budgets/forecasts approved by management and, when a period greater than five years is used for a CGU (group of units), an explanation of why that longer period is justified.
  - iv. The growth rate used to extrapolate cash flow projections beyond the period covered by the most recent budgets/forecasts, and the justification for using any growth rate that exceeds the long-term average growth rate for the products, industries, or country or countries in which the entity operates, or for the market to which the unit (group of units) is dedicated.
  - v. The discount rate(s) applied to the cash flow projections.
- (e) If the unit's (group of units') recoverable amount is based on FVLCS, the method used to determine FVLCS. If FVLCS is not determined using an observable market price for the unit (group of units), the following information shall also be disclosed:
- i. A description of each key assumption on which management has based its determination of FVLCS. Key assumptions are those to which the unit's (group of units') recoverable amount is most sensitive.

- ii. A description of management's approach to determining the value(s) assigned to each key assumption, whether those value(s) reflect past experience or, if appropriate, are consistent with external sources of information, and, if not, how and why they differ from past experience or external sources of information.

(f) If a reasonably possible change in a key assumption on which management has based its determination of the unit's (group of units') recoverable amount would cause the unit's (group of units') carrying amount to exceed its recoverable amount:

- i. The amount by which the unit's (group of units') recoverable amount exceeds its carrying amount.
- ii. The value assigned to the key assumption.
- iii. The amount by which the value assigned to the key assumption must change, after incorporating any consequential effects of that change on the other variables used to measure recoverable amount, in order for the unit's (group of units') recoverable amount to be equal to its carrying amount.

In addition to the requirements set out in the previous paragraph, if some or all of the carrying amount of goodwill or intangible assets with indefinite useful lives is allocated across multiple CGUs (groups of units), and the amount so allocated to each unit (group of units) is not significant in comparison with the entity's total carrying amount of goodwill or intangible assets with indefinite useful lives, that fact shall be disclosed, together with the aggregate carrying amount of goodwill or intangible assets with indefinite useful lives allocated to those units



(groups of units). In addition, if the recoverable amounts of any of those units (groups of units) are based on the same key assumption(s) and the aggregate carrying amount of goodwill or intangible assets with indefinite useful lives allocated to them is significant in comparison with the entity's total carrying amount of goodwill or intangible assets with indefinite useful lives, an entity shall disclose that fact, together with:<sup>85</sup>

- (a) the aggregate carrying amount of goodwill allocated to those units (groups of units);
- (b) the aggregate carrying amount of intangible assets with indefinite useful lives allocated to those units (groups of units);
- (c) a description of the key assumption(s);
- (d) a description of management's approach to determining the value(s) assigned to the key assumption(s), whether those value(s) reflect past experience or, if appropriate, are consistent with external sources of information, and, if not, how and why they differ from past experience or external sources of information;
- (e) if a reasonably possible change in the key assumption(s) would cause the aggregate of the units' (groups of units') carrying amounts to exceed the aggregate of their recoverable amounts:
  - i. The amount by which the aggregate of the units' (groups of units') recoverable amounts exceeds the aggregate of their carrying amounts.
  - ii. The value(s) assigned to the key assumption(s).
  - iii. The amount by which the value(s) assigned to the key assumption(s) must change, after incorporating any consequential effects of the change on the

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<sup>85</sup> See Paragraph 135 of FRS 136.

other variables used to measure the recoverable amount, in order for the aggregate of the units' (groups of units') recoverable amounts to be equal to the aggregate of their carrying amounts.

### **3.4 The Selection of Related Paragraphs**

FRS 136 presents an opportunity to address the three important research areas identified in Chapter 1: an assessment of compliance levels and disclosure quality; an assessment of the use of discount rate in IFRS goodwill impairment testing; and an assessment of audit quality among the Big 4. In order to address these three research areas, the disclosure requirements under FRS 136 are investigated, and the list of related paragraphs is discussed.

First, the allocation of goodwill to each CGU is a crucial process as it reflects the impairment loss being recognised. Paragraph 80 of FRS 136 states that, for the purpose of impairment testing, goodwill acquired in a business combination shall, from the acquisition date, be allocated to each of the acquirer's CGUs, or groups of CGUs, that are expected to benefit from the synergies of the combination, irrespective of whether other assets or liabilities of the acquiree are assigned to those units or groups of units. Each unit or group of units to which the goodwill is so allocated shall:

- (a) represent the lowest level within the entity at which the goodwill is monitored for internal management purposes; and

- (b) not be larger than a segment based on either the entity's primary or the entity's secondary reporting format determined in accordance with FRS 114<sub>2004</sub> – *Segment Reporting*.

Paragraph 134(a) of FRS 136 explains that an entity shall disclose the carrying amount of goodwill allocated to the unit (group of units). To avoid inappropriate aggregation, Paragraph 80 of FRS 136 specifies that the CGU should not be larger than a primary or secondary segment defined for the purpose of segment reporting.<sup>86</sup> The process of allocation of goodwill to CGUs is important, because the number of CGUs to which goodwill is allocated has the capacity to impact on the likelihood of an impairment loss being recognised.

The importance of the technical processes pursuant to which goodwill impairment testing transpires has been explored in a range of previous literature (e.g. Lonergan, 2007). Prior research has suggested that one key challenge faced in the context of FRS 136 is the manner in which goodwill is allocated between CGUs for the purposes of impairment testing. A particular risk relating to this process is known as the 'CGU aggregation problem',<sup>87</sup> where too few CGUs are defined and have goodwill allocated to them. This induces the risk that impairment charges that should occur are avoided, or at least inappropriately delayed.

Second, the value of goodwill that has been impaired in a given year is determined through a process of comparing estimates of the recoverable amount of portfolios of CGU assets with the book value ascribed to those assets. Paragraph 18 of FRS 136 defines the

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<sup>86</sup> Pursuant to FRS 114 – *Segment Reporting*.

<sup>87</sup> See Carlin & Finch (2010).

recoverable amount as the higher of an asset's or a CGU's FVLCS and its VIU and this involves a selection of fair value or VIU. This provides reporting entities with a choice between fair value and VIU as a basis for recoverable amount estimation, which choice carries substantial implications for the types of disclosures required by the entity. Paragraph 134(c) of FRS 136 explains that an entity shall disclose the information on the basis on which the unit's (group of units') recoverable amount has been determined (VIU or FVLCS).

Paragraph 6 of FRS 136 defines FVLCS as the amount obtainable from the sale of an asset or a CGU in an arm's length transaction between knowledgeable, willing parties less the costs of disposal. That is, market value less selling costs. In Malaysia's scenario, not all assets are traded in an active and liquid market. Many assets are specialised in nature and therefore have no market at all (Fah, 2006).

In that case, FRS 136 stipulates that adoption of a fair value approach to the determination of the recoverable amount is not dependent on the existence of an active market for the assets in question, but also makes clear the need for some reasonable basis for making a reliable estimate of the amount obtainable from the disposal of assets in arm's length transactions between knowledgeable and willing parties as a prerequisite to the adoption of this method. However, the reliability of fair value is questionable where there are no active and liquid markets (Fah, 2006). Thus, Paragraph 20 of FRS 136 provides that where it is not possible to estimate fair value due to lack of market evidence, the entity may use the asset's VIU as its recoverable amount.

Third, it is likely that in most circumstances the recoverable value will be determined by reference to VIU. In Malaysia, the absence of an active and liquid market for assets and CGU

valuation forces companies to adopt VIU to determine the recoverable amount of assets and CGUs (Carlin *et al.*, 2009a). Paragraph 6 of FRS 136 defines VIU as the present value of the future cash flows expected to be derived from an asset or CGU. In measuring VIU, an entity shall base cash flow projections on the most recent financial budgets/forecasts approved by management. Projections based on these budgets/forecasts shall cover a maximum period of five years, unless a longer period can be justified.<sup>88</sup> Detailed, explicit and reliable financial budgets/forecasts of future cash flows for periods longer than five years are generally not available. For this reason, management's estimates of future cash flows are based on the most recent budgets/forecasts for a maximum of five years. Management may use cash flow projections based on financial budgets/forecasts over a period longer than five years if it is confident that these projections are reliable and it can demonstrate its ability, based on past experience, to forecast cash flows accurately over that longer period.<sup>89</sup>

In measuring VIU, an entity shall 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 shall 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.<sup>90</sup> In some cases, it may be appropriate for the growth rate to be zero or negative.<sup>91</sup>

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88 See Paragraph 33(b) of FRS 136.

89 See Paragraph 35 of FRS 136.

90 See Paragraph 33(c) of FRS 136.

91 See Paragraph 36 of FRS 136.

In measuring VIU, the discount rate(s) shall be a pre-tax rate(s) that reflect(s) current market assessments of:<sup>92</sup>

- (a) the time value of money; and
- (b) the risks specific to the asset for which future cash flow estimates have not been adjusted.

The disclosure requirements for companies adopting VIU are informative for financial statements users. Paragraph 134 (d) of FRS 136 states that the disclosure requirements if the unit's (group of units') recoverable amount is based on VIU are:

- i. A description of each key assumption on which management has based its cash flow projections for the period covered by the most recent budgets/forecasts. Key assumptions are those to which the unit's (group of units') recoverable amount is most sensitive.
- ii. A description of management's approach to determining the value(s) assigned to each key assumption, whether those value(s) reflect past experience or, if appropriate, are consistent with external sources of information, and, if not, how and why they differ from past experience or external sources of information.
- iii. The period over which management has projected cash flows based on financial budgets/forecasts approved by management and, when a period greater than five years is used for a CGU (group of units), an explanation of why that longer period is justified.
- iv. The growth rate used to extrapolate cash flow projections beyond the period covered by the most recent budgets/forecasts, and the justification for using any growth rate that

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<sup>92</sup> See Paragraph 55 of FRS 136.

exceeds the long-term average growth rate for the products, industries, or country or countries in which the entity operates, or for the market to which the unit (group of units) is dedicated.

- v. The discount rate(s) applied to the cash flow projections.

Discount rates, growth rates, forecast periods and terminal value periods have been scrutinised in order to gain deeper insights into the operation of the goodwill reporting regime. Arguably, the nature of choices made by reporting entities, the level of their compliance with the precepts of FRS 136, and the quality of disclosures made pursuant to that Standard all convey evidence pertinent to an assessment of the robustness of the financial reporting climate, the level of transparency engendered via the adoption of a particular framework, and the policy implications of transition to new reporting approaches. Table 3.1 below summarises the selected paragraphs of FRS 136 used in this research and the related tables and chapters involved.

**Table 3.1 – Overview of Selected Paragraphs Used in the Dissertation**

Paragraph	Requirements of Standard	Chapter 5	Chapter 6	Chapter 7
80 and 134(a)	The allocation of goodwill to CGUs	Table 5.4 Table 5.5 Table 5.6	Table 6.2	Table 7.6 Table 7.7 Table 7.8
18, 20 and 134(c)	The basis on which the unit's recoverable amount has been determined	Table 5.7		Table 7.5
134(d)(iii), 33(b) and 35	The period of projected cash flows	Table 5.12 Table 5.13		Table 7.10
134(d)(iv), 33(c) and 36	The growth rate used to extrapolate cash flow projections	Table 5.10 Table 5.11		Table 7.10
134(d)(v) and 55	The discount rate(s) applied to the cash flow projections	Table 5.8 Table 5.9	Table 6.3 Table 6.4 Table 6.5 Table 6.6	Table 7.9



### 3.5 Summary

This chapter presented the technical background of the requirements of the new Standard of goodwill which includes when the recoverable amount shall be determined (Paragraphs 8–17), measuring the recoverable amount (Paragraphs 18–57), recognising and measuring impairment losses (Paragraphs 58–108), reversing an impairment loss recognised in prior periods for an asset or a CGU (Paragraphs 109–116), additional requirements for goodwill (Paragraphs 124 and 125), the information to be disclosed about impairment losses and reversals of impairment losses for assets and CGUs (Paragraphs 126–133), and additional disclosure requirements for CGUs to which goodwill or intangible assets with indefinite useful lives have been allocated for impairment testing purposes (Paragraphs 134–135).

This chapter specified the relevant sections used in the research areas and these included: the allocation of goodwill to CGUs (Paragraphs 80 and 134(a); the basis on which the unit's recoverable amount is determined (Paragraphs 18, 20 and 134 (c)); the period of projected cash flow (Paragraphs 134(d) (iii), 33(b) and 35); the growth rate used to extrapolate cash flow projections (Paragraphs 134(d)(iv), 33 (c) and 36); and the discount rate(s) applied to the cash flow projections (Paragraphs 134(d)(v) and 55). The next chapter discusses the sample of Malaysian companies that have been selected for this research and outlines the method employed in each of the three research areas.

## CHAPTER 4: RESEARCH METHOD

### 4.1 Introduction

The new accounting treatment for goodwill accounting and reporting represents one of the biggest challenges ever faced by Malaysian companies. The highly prescriptive and technical provisions of FRS 136 as discussed in detail in the previous chapter represent a very substantial variation from past practice. This in turn gives rise to questions about the extent to which Malaysian companies have fared during the process of transition to a complex new reporting regime and in consequence to the quality and consistency of reports produced pursuant to that new regime.

The research reported in this dissertation was undertaken with a view to generating insights into three important research areas. First, the level of compliance with a variety of the provisions of FRS 136 and the quality of disclosure pertaining to the high-risk issue of goodwill impairment testing made by a sample of large Malaysian listed corporations in the two years of FRS-based reporting. Second, to understand the use of discount rates in IFRS goodwill impairment testing by comparing the discount rates disclosed by a sample of large Malaysian companies with independently generated discount rates. (Discount rate selection represents a centrally material factor impacting valuation models.) Third, to examine the degree and variances of technical compliance with the disclosure requirements of FRS 136 as a proxy of audit quality among clients of the Big 4 audit firms in Malaysia and to attempt to question the homogeneity of audit quality assumption.

While Chapter 3 detailed the technical requirements of FRS 136, this chapter will look at the practice of the new goodwill reporting regime by outlining the method undertaken in the three research areas. The chapter is organised as follows. Sample selection procedures and the period of the study are covered in Section 4.2. Section 4.3 deals with the data collection. Section 4.4 discusses the research design. Section 4.5 presents an overview of the research sample and Section 4.6 summarises the chapter.

## **4.2 Sample Selection**

All Malaysian reporting entities with reporting dates commencing on or after 1 January 2006 are required to comply with the requirements of the new IFRS reporting regime. This research focuses on data drawn from all large Malaysian listed companies in 2006 and 2007. This two-year transition period represents a unique opportunity to examine the content of financial statements drawn up under new and complex standards, with a view to gaining insights into the quality of financial reporting (Carlin *et al.*, 2009b).

All companies in this research sample were listed on Bursa Malaysia. The Bursa Malaysia, previously known as the KLSE was incorporated on 14 December 1976 as a company limited by guarantee. On 14 April 2004, the KLSE changed its name to Bursa Malaysia. Companies are either listed on Bursa Malaysia Securities Berhad Main Board (larger capitalised companies), Second Board (medium-sized companies) or the MESDAQ Market (high growth and technology companies). The main index for Bursa Malaysia is the Kuala Lumpur Composite Index (KLCI) and is one of the three primary indices for the Malaysian stock market (the other

two are FMB30 and FMBEMAS). In June 2006, a new index, FTSE Bursa Malaysia Index series, which was jointly developed by Bursa Malaysia and FTSE Group, was introduced. All Malaysian companies listed in the Bursa Malaysia Main Board, Second Board and MESDAQ market were eligible for inclusion. The tradable indices are comprised of FTSE Bursa Malaysia Large 30 Index,<sup>93</sup> FTSE Bursa Malaysia Mid 70 Index,<sup>94</sup> FTSE Bursa Malaysia 100 Index<sup>95</sup> and FTSE Bursa Malaysia Hijrah Shariah Index.<sup>96</sup>

The first research area examined the level of compliance and disclosure quality with regard to FRS 136, with the initial sample consisting of all companies listed on the Bursa Malaysia in 2006 and 2007. Companies were included in the final research sample if they had reported under the new regime in 2006 and 2007, had goodwill as a component of their asset base in in these years and had fiscal years ending 31 December 2006. This is consistent with (Vichitsarawong, 2007) previous study. While early adoption was possible, the focal point of testing in this research lay in apparent discrepancies between mandatory procedures and actual practices. Thus, the inclusion of reports issued by voluntary adopters (or voluntary partial adopters) could introduce distortions to the dataset. This problem will not be encountered in datasets from 2007 onwards.

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93 Comprises the 30 largest companies in the FTSE Bursa Malaysia EMAS Index by full market capitalisation (with RM 255 831.79 million market capitalisation as at 19 November 2008).

94 Comprises the next 70 companies in the FTSE Bursa Malaysia EMAS Index by full market capitalisation (with RM 65 137.75 million market capitalisation as at 19 November 2008).

95 Comprises the constituents of the FTSE Bursa Malaysia Large 30 and the FTSE Bursa Malaysia Mid 70 Index (with RM 320 969.54 million market capitalisation as at 19 November 2008).

96 Comprises the largest 30 companies of the FTSE Bursa Malaysia EMAS Index by full market capitalisation that is screened by Yasaar and the Securities Commission's Shariah Advisory Council to meet the requirements of international Shariah-compliant investors.

The final research sample consisted of 275 companies in 2006 and 490 companies in 2007 and was achieved using the following process. Out of a total of 1053 companies in 2006 and 1053 companies in 2007, 555 companies in 2006 and 563 companies in 2007 with a combined market capitalisation of RM 281.1 million and RM 418.2 million respectively were excluded from the sampling frame for having no goodwill as an element of their asset base in their 2006 and 2007 consolidated financial statements. A further 223 companies in 2006 with a combined market capitalisation of RM 196.2 million were excluded for having a reporting date other than 31 December 2006. The combined market capitalisation of the final research sample was RM 240.3 million in 2006 and RM 635.1 million in 2007, representing 33.5% and 60.3% respectively of total Malaysian equity market capitalisation.

The second research area examined the single 'whole of firm' discount rates disclosed by the sample companies. The initial sample began with 275 companies in 2006 and 490 companies in 2007. However, 127 companies in 2006 and 168 companies in 2007 were excluded because they failed to disclose the method they adopted for the purposes of impairment testing. Another six companies in 2006 and eight companies in 2007 were excluded from the final sample because they used the FVLCS method in goodwill impairment testing, and discount rate can only be obtained by using the VIU method.

Another nine companies in 2006 and 15 companies in 2007 were excluded as they used the mixed method, which is a combination of fair value and VIU. The application of this method indicates that no single discount rate applicable to the whole of the business was disclosed. Then, 30 companies in 2006 and 42 companies in 2007 were excluded because they defined multiple and a range of discount rates, rather than a single 'whole of firm' discount rate. This is

important in view of the fact that the single discount rate is used as a form of benchmarking and is the crucial element in the method employed in this research. Finally, 37 companies in 2006 and 80 companies in 2007 were excluded as they failed to disclose the discount rate used in the impairment testing process. Thus, the final research sample consisted of 66 companies in 2006 and 177 companies in 2007, which employed VIU and defined a single discount rate.

The third research area examined audit quality among clients of the Big 4 in an attempt to question the homogenous audit quality assumption. The audited disclosures made during the transition period under FRS 136 of a sample of large Malaysian listed companies who had each engaged Big 4 auditors were examined. The initial sample consisted of 275 companies in 2006 and 490 companies in 2007. One hundred and two companies in 2006 and 181 companies in 2007 were excluded from the final sample as they were audited by non-Big 4 auditors. The final research sample reduced to 173 companies in 2006 and 309 companies in 2007. Table 4.1 summarises the number of companies in each research area as discussed above.

**Table 4.1– Final Sample for the Research Areas**

Focus Research Areas	Initial Sample		Final Sample	
	2006	2007	2006	2007
An assessment of compliance level and disclosure quality	1053	1053	275	490
An assessment of the use of discount rate in IFRS goodwill impairment testing	275	490	66	177 <sup>97</sup>
An assessment of audit quality among Big 4 auditors	275	490	173	309

To facilitate the analysis of the research areas, sample companies were divided into 14 groups based on Worldscope's General Industry Classification. Table 4.2 provides a breakdown of the final sample for each research area. The first research area shows that companies' distribution across sectors is even, roughly between 4% and 10.20% in each sector. The second research area shows that close to 20% of companies come from the miscellaneous sector. The rest are distributed across 1% to 12% in each sector. The third research area shows that companies' distribution across sectors is even, roughly between 2% and 11% in each industry.

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<sup>97</sup> In 2007, two companies applied a post-tax discount rate and these were converted to pre-tax equivalent rates by dividing them by one minus the prevailing corporate tax rate. According to Loneragan (2006) this approach is an oversimplification and will only lead to consistency on a before- and after-tax basis when cash flows are in perpetuity and there is no growth in these cash flows. However, since this is a generally accepted and orthodox approach (Carlin and Finch, 2009) to the conversion of post-tax discount rates to pre-tax rates, it is adopted for the purposes of this research.

**Table 4.2 Distribution of Sample Companies by General Industry Classification**

Sector	An Assessment of Compliance Level and Disclosure Quality		An Assessment of the Use of Discount Rate in IFRS Goodwill Impairment Testing		An Assessment of Audit Quality among Big 4 Auditors	
	2006	2007	2006	2007	2006	2007
Automotive and Chemicals	19 (6.9%)	17 (3.5%)	3 (4.6%)	7 (4.0%)	9 (5.2%)	10 (3.2%)
Construction	24 (8.7%)	50 (10.2%)	7 (10.6%)	22 (12.4%)	17 (9.8%)	34 (11.0%)
Consumer Products	17 (6.2%)	37 (7.6%)	6 (9.1%)	17 (9.6%)	7 (4.1%)	19 (6.2%)
Electrical and Electronic	19 (6.9%)	30 (6.1%)	2 (3.0%)	8 (4.5%)	14 (8.1%)	16 (5.2%)
Financials	23 (8.4%)	33 (6.7%)	4 (6.1%)	10 (5.7%)	19 (10.9%)	30 (9.7%)
Food and Beverage	19 (6.9%)	29 (5.9%)	3 (4.6%)	10 (5.7%)	13 (7.5%)	22 (7.1%)
Industrial Products	19 (6.9%)	45 (9.2%)	5 (7.6%)	19 (10.7%)	9 (5.2%)	22 (7.1%)
Machinery and Equipment	19 (6.9%)	32 (6.5%)	4 (6.1%)	8 (4.5%)	13 (7.5%)	24 (7.8%)
Miscellaneous	23 (8.4%)	43 (8.8%)	12 (18.2%)	16 (9.0%)	20 (11.6%)	28 (9.1%)
Plantation	13 (4.7%)	21 (4.3%)	4 (6.1%)	9 (5.1%)	11 (6.4%)	18 (5.8%)
Properties	19 (6.9%)	41 (8.4%)	1 (1.5%)	10 (5.7%)	13 (7.5%)	27 (8.7%)
Technology	21 (7.6%)	33 (6.7%)	6 (9.1%)	12 (6.8%)	4 (2.3%)	9 (2.9%)
Trading	22 (8.0%)	43 (8.8%)	4 (6.1%)	11 (6.2%)	13 (7.5%)	25 (8.1%)
Utilities and Transportation	18 (6.6%)	36 (7.4%)	5 (7.6%)	18 (10.2%)	11 (6.4%)	25 (8.1%)
<b>TOTAL</b>	<b>275</b>	<b>490</b>	<b>66</b>	<b>177</b>	<b>173</b>	<b>309</b>

### 4.3 Data Collection

The data used in the research areas were drawn from three sources. The main source of information were the annual reports of listed companies on Bursa Malaysia which were downloaded from either the Bursa Malaysia website or corporate websites. The data were collected from the financial statements and the notes to the accounts. The financial statements of the companies were manually searched to identify whether they had reported goodwill as a



component of their assets in 2006 and 2007 and the reporting period ending December for companies in 2006. Other data collected from the financial statements were the total assets, total equity, total liability, net profit before tax, the total of goodwill and the names of auditors.

The notes to the accounts on goodwill were another source of information. A manual search examined the level of compliance and the quality of disclosure with regard to the requirement of FRS 136. The data that were collected from the notes to the accounts included the number of CGUs, the number of business segments, the allocation of goodwill to CGUs, the method used to determine the recoverable amount and the key assumptions used to determine the recoverable amounts i.e. the discount rates, the growth rates and the forecasting period.

The third source of information was the Worldscope database by Thomson Financial which was extracted from the Macquarie University Library. The information obtained from the database included the industry classification, the companies' market capitalisation, and data on discount rate analysis i.e. the levered betas (stock market performance ratio) and the company's tax. The final source of information was the Bank Negara and Damodaran websites. The data extracted from the Bank Negara website included the 10-year government bond, and the data extracted from Damodaran's website was the base premium for mature equity market and the country risk premium.

## 4.4 Research Design

The new accounting standard has not materially changed all aspects of financial accounting and reporting on the balance sheet, but it has introduced many rigorous techniques and disclosures relating to goodwill impairment testing and requires significant extended disclosure requirements.

So how have Malaysian companies and their auditors fared during the process of transition to this complex new reporting system and how has their performance impacted upon the quality and consistency of reports produced pursuant to that new regime? To understand the practice of IFRS goodwill impairment testing by large listed Malaysian corporations, this research focuses specifically on three research areas, the design of which is presented in Table 4.3 and discussed in the next sub-section.

**Table 4.3– Overview of Research Design**

<b>Focus Research Areas</b>	<b>Research Design</b>
Assessment of Compliance Level and Disclosure Quality	Two-layered comparative/evaluative method: <ol style="list-style-type: none"> <li>1. Level of compliance analysis</li> <li>2. Disclosure quality analysis</li> </ol>
An Assessment of the use of Discount Rate in IFRS Goodwill Impairment Testing	Compare the single discount rate disclosed by sample companies with the estimated discount rate using: <ol style="list-style-type: none"> <li>1. CAPM</li> <li>2. Goodwill Intensity</li> </ol>
An Assessment of Audit Quality among Big 4 Auditors	Six analytical structures: <ol style="list-style-type: none"> <li>1. Method employed in estimating the recoverable amount of CGU assets</li> <li>2. Allocation of the value of goodwill to CGUs</li> <li>3. Relationship between the number of industry segments and the number of CGUs defined</li> <li>4. CGU to business segment ratio</li> <li>5. Disclosure quality of discount rates</li> <li>6. Classification of growth assumption disclosures</li> </ol>

#### **4.4.1 An Assessment of Compliance Levels and Disclosure Quality**

In implementing the new Standard of goodwill, companies need to deal with significantly expanded disclosure requirements, in particular in relation to recoverable amounts, impairment and information about key assumptions adopted in the value simulation process. This has not changed the format of information recognised in the balance sheet but has materially changed the information required in the notes to the accounts. Specifically, the highly detailed disclosure requirements set out in FRS 136 present an opportunity to examine the level of compliance and disclosure quality exhibited by reporting entities – and by extension, yield insights into the implications of, and challenges associated with, transition to new and complex reporting regimes.

In assessing the first research area, a two-layered comparative/evaluative method was employed. This method is consistent with Carlin & Finch (2010). The first layer of the method employed in the compliance analysis required a comparison to be made between the content of a company's impairment testing disclosure in the annual report and a checklist of requirements derived from the text of FRS 136. This allows disclosures to be categorised according to a bi-modal 'comply' or 'non-comply' taxonomy.

The second layer of the method employed in the disclosure quality analysis looked beyond distribution of disclosures into the basic categories of 'comply' and 'non-comply', recognising that within the 'comply' category of disclosures there is a gradation of quality. Thus, an additional element of the method employed is the construction of multi-category disclosure quality taxonomies which provide a more nuanced perspective on disclosure practice than

simple 'comply' versus 'non-comply' categorisations. Table 4.4 summarises the layout of the level of compliance and disclosure quality analysis.

**Table 4.4 Compliance Level and Disclosure Quality Assessment**

Method	Table	Categorisation
<b>First layer of method (level of compliance)</b>		
1) Allocation of goodwill to CGU	Table 5.4 – CGU Allocation Compliance by Sector	Comply or non-comply
2) CGU aggregation behaviour	Table 5.5 – Business Segments and CGU Aggregation by Segment	Analysis of segment and CGU disclosures
3) CGU to business segment ratio	Table 5.6 – Analysis of Business Segments and CGUs by Sector	Analysis of controlled entities and CGU disclosures
<b>Second layer of method (disclosure quality)</b>		
1) Method used to determine the recoverable amount of CGU	Table 5.7 – Method Employed to Determine Recoverable Amount	Frequency of each method applied
2) The key assumptions of VIU method	Table 5.8 – Discount Rate Method	Frequency of each discount rate category
	Table 5.9 – Discount Rate Disclosure	Analysis of note-form disclosure
	Table 5.10 – Growth Rate Method	Frequency of each growth rate category
	Table 5.11 – Growth Rate Disclosure	Analysis of note-form disclosure
	Table 5.12 – Forecast Period	Frequency of each forecast period category
	Table 5.13 – Forecast Period Disclosure	Analysis of note-form disclosure

## 1. Level of Compliance Analysis

To examine the level of compliance under the new goodwill reporting regime, it was necessary to scrutinise the disclosure requirements of FRS 136. A comparison was made between the checklist of requirements under FRS 136 and the content of a company's goodwill impairment disclosure in the annual report. Then, the disclosures were categorised according to a bi-modal 'comply' or 'non-comply' taxonomy.

It is a basic requirement of FRS 136 that all goodwill be allocated to CGUs, and that adequate disclosures are made, allowing financial statement users to reconcile between the headline value ascribed to goodwill on the balance sheet and the sub-components of that balance split between CGUs. Paragraph 80 of FRS 136 requires that, for the purpose of impairment testing, goodwill is to be allocated to each of the reporting entity's CGUs (or groups of CGUs) expected to benefit from the goodwill. To avoid the creation of an excessive reporting systems burden, this allocation is only required down to CGUs or groups of CGUs which represent the lowest level at which goodwill is monitored for internal management purposes. However, to guard against inappropriate aggregation,<sup>98</sup> Paragraph 80 of FRS 136 stipulates that the CGUs (or groups thereof) should not be larger than the segments defined for the purpose of segment reporting.<sup>99</sup> Therefore, companies that allocated the total amount of goodwill to the defined CGU were categorised as 'comply' and companies that did not meet this requirement

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98 The CGU aggregation problem has also been recognised in a literature, for example, Wines *et al.* (2007). It is notable that a literature concerning segment reporting, which shares close parallels with aspects of the literature that touches on CGU definition, also reports high variation in practice, and a tendency to report fewer rather than more sectors, given the potential competitive costs associated with these disclosures (Hayes & Lundholm, 1996).

99 FRS 114 – *Segment Reporting*.

were categorised as ‘non-comply’. The result of this categorisation is illustrated in Table 5.4 in Chapter Five.

The importance of the technical processes pursuant to which goodwill impairment testing transpires has been explored in a previous study (e.g. Lonergan, 2007). One key challenge faced in the context of FRS 136 is the manner in which goodwill is allocated between CGUs for the purposes of impairment testing. A particular risk relating to this process is known as the ‘CGU aggregation problem’,<sup>100</sup> where too few CGUs are defined and have goodwill allocated to them. This induces the risk that impairment charges, which should occur, are avoided, or at least inappropriately delayed.

As a rule, CGUs should be no smaller than the industry segments defined for the purposes of segment reporting. Aggregation occurs where fewer CGUs than required are defined. The consequence of this is that poorly performing areas of the business where impairment is likely to have occurred can be shielded from the requirement for impairment charges to be recognised by combining them with better performing segments of the business. This undermines a key rationale for the design of the FRS 136 impairment testing regime.

This process is important, because inappropriate allocation of goodwill to defined CGUs affects goodwill impairment testing. A simple example will illustrate. Consider a courier company, Fedtax Ltd. This company operates a highly profitable domestic and international courier service. Both services have lower than average margins and far higher result unpredictability and are capable of being sustained independently. If the segments in both

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<sup>100</sup> See Carlin & Finch (2010).



services combined were considered to represent a single CGU, the consistent results of the domestic portion will tend to smooth the volatility inherent in the international portion. In consequence, it is likely that a discounted cash flow approach to determining the recoverable amount of the assets deployed by the business will result in over and above the carrying value than would be the case were each treated as an individual CGU. Thus, in order to understand the characteristics of the goodwill reporting regime, developing an understanding of the apparent level of aggregation of CGUs as defined by reporting entities is crucial.

Therefore, the investigation process began by scrutinising the financial statements of each company in the research sample by comparing the number of business segments they defined for reporting purposes and the number of CGUs defined for the purposes of goodwill impairment testing. Companies were categorised according to one of four categories: 1) where the number of defined CGUs was larger than the number of business segments defined by the company; or 2) where the number of defined CGUs was equal to the number of business segments defined; or 3) where the number of defined CGUs was smaller than the number of business segments defined; or 4) where there was no effective disclosure. This data provides evidence related to the likelihood of CGU aggregation behaviour (as detailed above) on the part of reporting entities. The results of segment analysis and CGU disclosure is shown in Table 5.5 in Chapter 5.

To better understand the characteristics of the defined CGUs and to identify whether there was evidence of inappropriate allocation of goodwill to CGUs, first, a CGU to business segment ratio was calculated for each of the sample companies. This analysis builds upon the procedure described in the analysis of segment and CGU disclosure above and also indicates

the likelihood of CGU aggregation behaviour among reporting entities). Second, a further analysis of business segments and CGUs was carried out by comparing the number of reported controlled subsidiary entities, business segments and defined CGUs for each company in the sample. Although certainly not a perfect proxy for prior acquisition activity, a review of the number of controlled entities may point to the variety of occasions in the past in which an acquisition event potentially triggered the existence of goodwill. The analysis of business segments and CGU disclosures is shown in Table 5.6 in Chapter 5.

## **2. Quality of Disclosure**

To examine the quality of disclosure, this analysis constructed multi-category disclosure quality taxonomies within the 'comply' category of disclosures discussed above. The disclosure of the value estimation approach adopted for the purposes of the goodwill impairment testing process is a requirement of FRS 136. The value of goodwill that has been impaired in a given year is determined through a process of comparing estimates of the recoverable amount of portfolios of CGU assets with the book value ascribed to those assets. Paragraph 18 of FRS 136 defines the recoverable amount as the higher of an asset's or a CGU's FVLCS and its VIU. This provides reporting entities with a choice between fair value and VIU as a basis for recoverable amount estimation, which choice carries substantial implications for the types of disclosures required by the entity.<sup>101</sup> Companies included in the research sample were categorised

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<sup>101</sup> Including the very obvious threshold requirement that reporting entities clearly specify the valuation approach they have adopted for the purpose of estimating the CGU recoverable amount.

according to the method they adopted for the purposes of determining the recoverable amount of CGU assets. The frequency of each method applied is reported in Table 5.7 in Chapter 5.

FVLCS is defined as ‘the amount obtainable from the sale of an asset or cash-generating unit in an arm’s length transaction between knowledgeable, willing parties, less the costs of disposal’ (Paragraph 6 of FRS 136). The disclosure requirement under the fair value method is stated under Paragraph 134 (e) of FRS 136 – if the unit’s (group of units’) recoverable amount is based on FVLCS, the method is used to determine FVLCS. If FVLCS is not determined using an observable market price for the unit (group of units), the following information shall also be disclosed:

- (i) A description of each key assumption on which management has based its determination of FVLCS. Key assumptions are those to which the unit’s (group of units’) recoverable amount is most sensitive.
- (ii) A description of management’s approach to determining the value(s) assigned to each key assumption, whether those value(s) reflect past experience or, if appropriate, are consistent with external sources of information, and, if not, how and why they differ from past experience or external sources of information.

VIU is ‘the present value of the future cash flows expected to be derived from an asset or cash-generating unit’ (Paragraph 6 of FRS 136). This method drives a series of disclosure

requirements consequent to that choice. Paragraph 134(d) of FRS 136 states that the disclosure requirements, if the unit's (group of units') recoverable amount is based on VIU, are:

- (i) A description of each key assumption on which management has based its cash flow projections for the period covered by the most recent budgets/forecasts. Key assumptions are those to which the unit's (group of units') recoverable amount is most sensitive.<sup>102</sup>
- (ii) A description of management's approach to determining the value(s) assigned to each key assumption, whether those value(s) reflect past experience or, if appropriate, are consistent with external sources of information, and, if not, how and why they differ from past experience or external sources of information.<sup>103</sup>
- (iii) The period over which management has projected cash flows based on financial budgets/forecasts approved by management and, when a period greater than five years is used for a CGU (group of units), an explanation of why that longer period is justified.<sup>104</sup>
- (iv) The growth rate used to extrapolate cash flow projections beyond the period covered by the most recent budgets/forecasts, and the justification for using any growth rate that exceeds the long-term average growth rate for the products, industries, or country or countries in which the entity operates, or for the market to which the unit (group of units) is dedicated.<sup>105</sup>

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<sup>102</sup> FRS 136, Paragraph 134 d (i).

<sup>103</sup> FRS 136, Paragraph 134 d (ii).

<sup>104</sup> FRS 136, Paragraph 134 d (iii).

<sup>105</sup> FRS 136, Paragraph 134 d (iv).

- (v) The discount rate(s) applied to the cash flow projections.<sup>106</sup>

In Malaysia, not all assets are traded in an active and liquid market. Many are specialised in nature and therefore have no market at all (Fah, 2006). The absence of active and liquid markets for many types of asset valuation leads to a natural tendency on the part of reporting entities to adopt VIU as the dominant means of determining the recoverable amount. Thus, key assumptions such as discount rates (Paragraph 134(d) and (v) of FRS 136), growth rates (Paragraph 134(d) and (iv) of FRS 136) and forecast periods (Paragraph 134(d) and (iii) of FRS 136) were scrutinised in order to better understand the operation of the goodwill reporting regime.

The information on the nature of disclosures made in relation to the key assumptions of the VIU method assists in the development of insights into standard disclosure quality among Malaysian reporting entities. In particular, where the VIU approach is adopted, a range of disclosures in relation to discount rates, growth rate projections and forecast periods are required to gain more understanding of the operation of the goodwill reporting regime. Each of these elements is subject to technically precise disclosure requirements and, as is becoming evident from a growing raft of evidence, potential gaming (Ramanna & Watts, 2007; Zhang & Zhang, 2007).

The selection of appropriate discount rates, growth rates, forecast periods and the generation of appropriate disclosures in relation to these choices also represent matters of

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<sup>106</sup> FRS 136, Paragraph 134 d (v).

material concern. The execution of robust impairment testing according to the precepts of the IFRS regime is a highly complex task, requiring the alignment of an array of elements including (but not limited to) the adoption of appropriate growth profiles for company cash flows and the choice of an appropriate discount rate to translate estimates of future cash flows into their present economic equivalents. The underlying assumptions employed about discount rates, growth rates and forecast periods used in the VIU method for impairment testing becomes far more complex, and can therefore be subject to much ambiguity, interpretation and management discretion. Failure to appropriately align each of the elements results in outcomes of questionable meaning and value (Carlin & Finch, 2010).

In order to analyse disclosure quality, it was necessary to develop taxonomy for discount rates, growth rates and forecast periods. A multi-classification taxonomy for data categorisation was applied, comprising four groupings to assess the quality of disclosure of sample companies which adopted the VIU method. The taxonomy was consistent with Carlin & Finch (2010) and applied for discount rates were:

1. No effective disclosure:

Companies in the first category provided inadequate disclosure regarding the discount rate and in consequence provided no meaningful information for external analysts relating to the impairment testing process. They were clearly in breach of a key element of the disclosure requirements stipulated under Paragraph 134(d)(v) of FRS 136.

2. A range of discount rates (where a firm stipulated that the discount rates employed lay within a disclosed range but did not link any particular discount rate to any particular CGU):

Companies in the second category provided a degree of information regarding the process of impairment testing but given the lack of specificity of the data, it is questionable whether disclosure of this sort meets the requirements or objectives of FRS 136.

3. Single explicit discount rate (where a single rate was used to discount the cash flows of all defined CGUs):

Companies in the third category disclosed the application of a single discount rate for recoverable amount modelling in each of their CGUs. While this treatment leaves financial statement users in no doubt as to the rate applied to the key task of future cash flow discounting, it nonetheless raises questions in relation to the appropriateness of the rates employed by these companies, given the need to shape discount rates to the risk characteristics of CGUs, and the likelihood that risk varies between CGUs.

4. Multiple explicit discount rates (where a unique rate was used to discount the cash flows in each different CGU):

Companies in the fourth category appeared to fully comply with the requirements of FRS 136 in relation to discount rates by disclosing unique rates applicable to each of their various CGUs. This form of disclosure fully complies with the requirements of the Standard and also provides a higher assurance of process quality through an explicit matching of applied rates to the individual risk characteristics of defined CGUs.

Having grouped the companies into one of the four categories, further analysis on mean, median, minimum and maximum of discount rate was undertaken to better understand the discount rate disclosures according to the requirements of FRS 136. The frequency of companies' disclosure pertaining to discount rates and the analysis of note-form disclosure are reported in Tables 5.8 and 5.9 in Chapter 5.

A very similar taxonomy was adopted in classifying growth rate assumption disclosures made by companies in the research sample. Companies were divided into four categories: multiple growth rates; a single growth rate; a range of growth rates; or no effective disclosure. The frequency of companies' disclosure pertaining to growth rates and the analysis of note-form disclosures for growth rates are reported in Tables 5.10 and 5.11 in Chapter 5.

The analysis of disclosure pertaining to forecast periods adopted a similar taxonomy. Companies in the sample were again divided into four categories: multiple forecast periods; a single forecast period; a range of forecast periods; or no effective disclosure. The frequency of companies' disclosure pertaining to the frequency of each forecast period and the analysis of note-form disclosures for forecast periods are set out in Tables 5.12 and 5.13 in Chapter 5.

#### **4.4.2 An Assessment of the Use of Discount Rates in IFRS Goodwill**

##### **Impairment Testing**

Discount rate selection represents a centrally material factor impacting valuation models. Given the strong reliance on discounted cash flow modelling as a basis for determining an asset's



recoverable amount, the judgment exercised by reporting entities regarding discount rate selection is of paramount importance in influencing the outcomes of the impairment testing process conducted under IFRS. The discretion surrounding discount rate selection could be used opportunistically to avoid impairment losses at the detriment of transparency, comparability and decision usefulness. The second research areas compares the single 'whole of firm' discount rates disclosed by sample companies with independently generated central point 'whole of firm' discount rates. In developing the independent estimates of discount rates, this study used the CAPM and a goodwill intensity analysis. Table 4.5 summarises the layout of the second research area.

**Table 4.5 - Layout of the Discount Rate Assessment**

Method	Table	Categorisation
1. CAPM	Table 6.4 – Analysis of Discount Rate Variance by Sector	Frequency of discount rate variance category
	Table 6.5 – Industry Sector Ringgit Value of Goodwill by Discount Rate Variance	Frequency of discount rate variance category by value of goodwill
2. Goodwill Intensity	Table 6.3 – Company Goodwill Intensity Analysis	Analysis of mean goodwill intensity's score
	Table 6.6 – Discount Rate Variance and Goodwill Intensity (Value of Goodwill)	Frequency of discount rate variance category and goodwill intensity by value of goodwill

## 1. Capital Asset Pricing Model (CAPM)

In developing the independent estimates of discount rates, this research used the CAPM. This model takes into account the current market assessment and the risks specific to the CGU assets, which makes it the preferred method to estimate an appropriate discount rate. The use of CAPM is also consistent with the requirement stipulated in FRS 136.<sup>107</sup> Previous studies have suggested that this model is being used widely by firms in the estimation of their cost of capital<sup>108</sup> (Graham & Harvey, 2001; Bancel & Mittoo, 2003). Consistent with Carlin & Finch (2009), the following steps show the process in deriving a comparison discount rate for each sample company:

- (1) The levered beta ( $\beta_L$ ) for each company was obtained from Worldscope database by Thomson Financial as at December 2006 and 2007. The beta measures of market risk shows the relationship between the volatility of the stock and the volatility of the market. This coefficient is based on between 23 and 35 consecutive month-end price percent changes and their relativity to a local market index.
- (2) The levered beta ( $\beta_L$ ) was then adjusted by the book-value leverage ratio specific to each company, and the company tax rate, to derive the unlevered asset beta ( $\beta_U$ ) using the Hamada (1972) equation shown below in Equation 1:

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<sup>107</sup> Paragraph A17 (a) of FRS 136.

<sup>108</sup> This issue is significant and the principal methodological element of the research is that the methodology employed in this research as a basis for estimating firm risk adjusted discount rates is consistent with or similar to the approach taken by the companies in the research sample. The dominant role of CAPM-based approaches suggested by the extant literature provides a degree of comfort in the application of this approach.

**Equation 1 – Levered Adjusted Beta (Hamada) Equation**

$$\beta_u = \beta_L / [1 + (D/E) * (1 - t)]$$

Where:

$\beta_u$  = the unlevered asset beta of the company

$\beta_L$  = the levered beta of the company

$D/E$  = the book-value leverage ratio of the company<sup>109</sup>

$t$  = company marginal tax rate, being 28% in 2006 and 27% in 2007.

- (3) Using the unlevered asset beta ( $\beta_u$ ) obtained above, a comparison discount rate for each company was derived using the CAPM as shown in Equation 2:

**Equation 2 – Capital Assets Pricing Model (CAPM)**

$$r_a = r_f + \beta_u * (r_m - r_f)$$

Where:

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<sup>109</sup> The book value leverage ratio for each company was calculated using the data contained in each company's 2006 and 2007 audited financial statements. An implicit assumption in the approach taken to delivering company beta is that the observed book value leverage is the optimal or target capital structure for each sample company. This may not be so in all cases.

$r_a$  = the expected after-tax rate of return specific to the company's assets

$r_f$  = the long-term risk-free rate

$\beta_u$  = the unlevered asset beta of the company

$r_m - r_f$  = the market risk premium for equity shareholders

The long-term risk-free rate ( $r_f$ ) assumes a value of 4.31% in 2006 and 3.68% in 2007 being the average 10-year Malaysian Government Securities yield as at 2006 and 2007. The expected market risk premium for equity shareholders ( $r_m - r_f$ ) assumes a value of 7.47% in 2006 and 7.35% in 2007. These figures are consistent with a model from Damodaran (2009):

#### Equation 3– Market Risk Premium

**Market Risk Premium = Base Premium for Mature Equity Market + Country Risk Premium**

The base premium for mature equity market is a value of 6.19% in 2006 and 6.07% in 2007.<sup>110</sup> The country risk premium from the above model is expected to reflect the extra risk (e.g. political chaos, nationalisation and economic meltdowns) in a specific market,

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<sup>110</sup> These figures were extracted from Damodaran's website (<http://pages.stern.nyu.edu/~adamodar/>)

and the historical data for country risk premium for Malaysia is 1.28% in 2006 and 2007.<sup>111</sup>

- (4) Finally, the expected after-tax rate of return specific to the company's assets ( $r_a$ ) was adjusted to reflect a pre-tax comparison discount rate by dividing the value by 0.72 in 2006 and 0.73 in 2007, being one minus the company tax rate of 28% in 2006 and 27% in 2007.

The estimated discount rates resulting from the above process were compared with those disclosed by each of the sample companies. The variance between estimated and observed discount rates was calculated and stratified on an industry sector basis. Companies in the sample were sorted by industry sector and allocated to one of five variance categories: >250 bp below expectation; >150 bp <250 bp below expectation; within expected range (+/- 150 bp); >150 bp <250 bp above expectation; and >250 bp above expectation. The number of companies and the proportion of each category is reported in Table 6.4 in Chapter 6. Upon viewing the data on the Malaysia ringgit value of goodwill by discount rate variance companies, the sample was sorted by industry sector and the total value of goodwill allocated to one of five variance categories as discussed above. The total value of goodwill and the proportion of each category is presented in Table 6.5 in Chapter 6.

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<sup>111</sup> These figures were extracted from Damodaran's website (<http://pages.stern.nyu.edu/~adamodar/> – Discount Rate Estimation and Risk Premiums for Other Markets).

## 2. Goodwill Intensity

Goodwill intensity represents a measure of the sensitivity of companies to changes in goodwill valuation and in particular of earnings streams to potential impairment charges (Carlin & Finch, 2009). It is measured using Equation 4 below:

### **Equation 4 – Goodwill Intensity**

$$\text{Goodwill intensity} = \text{Goodwill} / \text{NPBT}$$

Where:

NPBT = Net profit before tax

A score greater than 1.0 for goodwill intensity indicates a high degree of sensitivity to a current period loss as a result of an impairment expense. The greater the goodwill intensity value, the greater the risk of losses in the current period. A score greater than zero but less than 1.0 for goodwill intensity indicates a lower degree of sensitivity to a write-down in current period profit as a result of an impairment expense, whereas a goodwill intensity score of less than zero shows the company is already unprofitable and any impairment expenses will only further increase current period losses. The goodwill intensity score for each company was calculated, and further analysis on mean, standard deviation, minimum and maximum of goodwill intensity carried out to have a better understanding of the goodwill intensity score. The analysis of the goodwill intensity score is reported in Table 6.3 in Chapter 6.

An alternative means of stratifying the discount rate variance data is by the goodwill intensity score. The variance between estimated and observed discount rates was calculated and stratified on the basis of the goodwill intensity of each sample company. Companies in the sample were sorted by industry sector and allocated to one of five variance categories: >250 bp<sup>112</sup> below expectation; >150 bp <250 bp below expectation; within expected range (+/- 150 bp); >150 bp <250 bp above expectation; >250 bp above expectation. The number and proportion of companies which fell into each variance category is presented in Table 6.6 in Chapter 6.

#### **4.4.3 An Assessment of Audit Quality among Big 4 Auditors**

The third research area focuses on the extent to which clients of Big 4 audit firms strictly adhere to the complex technical provisions of a new reporting standard. The transition to FRS 136 has created more work for auditors, with the additional information pertaining to the disclosure of goodwill and the assessment of its potential value impairment requiring greater attention.

In exploring this theme, six analytical structures were employed to distinguish audit quality among Big 4 audit firms and to attempt to question the homogeneity of audit quality assumptions. First, companies in the research sample were sorted by audit firm according to the choice of method employed in estimating the recoverable amount of CGU assets. These

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<sup>112</sup> Basis point

include VIU, fair value or a combination of the two (that is, the use of VIU in some CGUs and the recourse to fair values in others). This data assisted with the development of insight into the level of compliance with basic disclosure requirements set out in FRS 136. The frequency of companies' selection sorted by audit firm is reported in Table 7.5 in Chapter 7.

Second, the companies in the research sample were sorted by audit firm, according to whether they allocated all the value of goodwill to the CGUs for the purpose of impairment testing, or whether there was no meaningful information indicating how or if the value of goodwill was allocated to CGUs. Then, companies that allocated the total amount of goodwill to the defined CGU were categorised as 'comply' and companies that did not meet this requirement were categorised as 'non-comply'. This data assisted with the development of insight into the level of compliance with basic disclosure requirements set out in FRS 136. The result of this categorisation is shown in Table 7.6 in Chapter 7.

Third, the companies in the research sample were sorted by audit firm according to the relationship between the number of industry segments they defined for reporting purposes and the number of CGUs defined for the purposes of goodwill impairment testing. Companies sorted by audit firm were grouped into one of four categories: where the number of defined CGUs was larger than the number of business segments defined by the company; where the number of defined CGUs was equal to the business segments defined; where the number of defined CGUs was smaller than the business segments defined; or where there was no effective disclosure. This data provides evidence relating to the likelihood of CGU aggregation behaviour on the part of reporting entities. The result of the analysis of segment and CGU disclosures is shown in Table 7.7 in Chapter 7.



Fourth, prior research has suggested that one key challenge faced in the context of FRS 136 is the manner in which goodwill is allocated between CGUs for the purposes of impairment testing. A particular risk relating to this process is known as the CGU aggregation problem (Carlin & Finch, 2010), where too few CGUs are defined and have goodwill allocated to them. This induces the risk that impairment charges which should occur are avoided, or at least inappropriately delayed. Therefore, a CGU to business segment ratio was calculated for each of the sample companies, the results being displayed according to audit firm identity. This analysis builds upon the procedure described in step three (above) and also suggests the likelihood of CGU aggregation behaviour among reporting entities. The analysis is reported in Table 7.8 in Chapter 7.

Fifth, the companies in the research sample were sorted by audit firm according to the disclosure quality of discount rates used in the impairment testing process. A multi-classification taxonomy for data categorisation was applied, comprising four groupings. These were:

1. No effective disclosure;
2. a range of discount rates (where a company stipulated that the discount rates employed lay within a disclosed range but did not link any particular discount rate to any particular CGU);
3. single explicit discount rate (where a single rate was used to discount the cash flows of all defined CGUs); and
4. multiple explicit discount rates (where a unique rate was used to discount the cashflows in each different CGU).

Allocation of a company to the first category signified that the company provided inadequate disclosure regarding the discount rate and in consequence provided no meaningful information for external analysts relating to the impairment testing process. Companies in this category clearly breached a key element of the disclosure requirements stipulated under FRS 136. Companies categorised as falling within the second category, 'range of discount rates', provided a degree of information regarding the process of impairment testing but given the lack of specificity of this data, it is questionable whether disclosure of this sort meets the requirements or objectives of FRS 136. Companies in the third category, 'single explicit discount rate' disclosed the application of a single discount rate for recoverable amount modelling in each of their CGUs. While this treatment leaves financial statement users in no doubt as to the rate applied to the key task of future cash flow discounting, it nonetheless raises questions in relation to the appropriateness of the rates employed by these entities, given the need to shape discount rates to the risk characteristics of CGUs, and the likelihood that risk varies between CGUs.

Finally, companies in the fourth category appeared to fully comply with the requirements of FRS 136 in relation to discount rates by disclosing unique rates applicable to each of their various CGUs. This form of disclosure fully complies with the requirements of the Standard, but also provides a higher assurance of process quality through an explicit matching of applied rates to the individual risk characteristics of defined CGUs. The analysis of discount rate disclosure is reported in Table 7.9 in Chapter 7.

A very similar taxonomy was adopted for classifying growth assumption disclosures made by companies in the research sample. Companies in the sample were divided into four categories: multiple growth rates; single growth rate; range of growth rates; or no effective disclosure. The analysis of growth rate disclosure is reported in Table 7.10 in Chapter 7.

Table 4.6 below summarises the layout of the third research area.

**Table 4.6– Layout of the Assessment of Audit Quality among Big 4 Auditors**

Method	Table	Categorisation
1. Method employed in estimating the recoverable amount of CGU assets	Table 7.5 – Method Employed by Companies to Determine Recoverable Amount	Frequency of each method applied
2. Allocation of goodwill value to the CGUs	Table 7.6 – CGU Allocation Compliance by Auditor	Comply or non-comply
3. Relationship between the number of business segments and the number of CGUs defined	Table 7.7 – Business Segments and CGU Aggregation by Auditor	Analysis of business segment and CGU disclosures
4. CGU to business segment ratio	Table 7.8 – Ratio of CGUs to Business Segments	Analysis of ratio of CGUs to business segments
5. Disclosure quality of discount rates	Table 7.9 – Analysis of Discount Rate Used to Test Impairment	Frequency of each discount rate category and analysis of note-form disclosures
6. Disclosure quality of growth rates	Table 7.10 – Analysis of Growth Rate Used to Test Impairment	Frequency of each growth rate category, forecast period category and analysis of note-form disclosures

## 4.5 Overview of Research Sample

Table 4.7 reports the total assets, total goodwill, average of goodwill and percentage of goodwill to assets in the three research areas. At the date of sampling, the companies in the first research area in the final sample controlled assets valued at RM 1 098 567 million in 2006 and RM 1 741 568 million in 2007, which included goodwill of RM 36 455 million in 2006 and RM 53 441 million in 2007. The average of goodwill per company decreased slightly from RM 146 million in 2006 to RM 109 million in 2007. The percentage of goodwill to total assets also decreased slightly from 3.32% in 2006 to 3.07% in 2007.

Companies in the second research area in the final sample controlled assets valued at RM 88 460 million in 2006 and RM 472 469 million in 2007, which included goodwill of RM 3687 million in 2006 and RM 11 288 million in 2007. The average goodwill per company was RM 56 million in 2006 and RM 64 million in 2007. The percentage of goodwill to total assets decreased from 4.17% in 2006 to 2.39% in 2007.

Companies in the third research area in the final sample controlled assets valued at RM 1 053 571 million in 2006 and RM 1 740 438 million in 2007, which included goodwill of RM 34 851 million in 2006 and RM 53 395 million in 2007. The average goodwill per company was RM 201 million in 2006 and RM 173 million in 2007. The percentage of goodwill to total assets also decreased slightly from 3.31% in 2006 to 3.07% in 2007.

Table 4.7 – Overview of Research Sample

Empirical Studies	No. of Companies		Total Assets (RM million)		Total Goodwill (RM million)		Average Goodwill (RM million)		Goodwill as % Total Assets	
	2006	2007	2006	2007	2006	2007	2006	2007	2006	2007
An Assessment of Compliance Level and Disclosure Quality	275	490	1 098 567	1 741 568	36 455	53 441	146	109	3.32%	3.07%
An Assessment fn the Use of Discount Rate in IFRS Goodwill Impairment Testing	66	177	88 460	472 469	3687	11 288	56	64	4.17%	2.39%
An Assessment of Audit Quality among Big 4 Auditors	173	309	1 053 571	1 740 438	34 851	53 395	201	173	3.31%	3.07%

## 4.6 Summary

This chapter described the research sample, data collection procedures and research design, and presented an assessment of the three research areas. The first research area employed a two-layered comparative/evaluative method to analyse compliance levels and disclosure quality. The final sample consisted of 275 companies in 2006 and 490 companies in 2007. The first research area is examined more closely in Chapter 5.

The second research area focused on discount rate analysis, and the CAPM and goodwill intensity were used in analysing the discount rate. The final sample consisted of 66 companies in 2006 and 177 companies in 2007. The second research area is described in Chapter 6.

The third research area employed six analytical structures to analyse audit quality among the Big 4 auditors, in an attempt to question the homogeneity of audit quality assumption. The final sample consisted of 173 companies in 2006 and 309 companies in 2007. The details of this last research area are described in Chapter 7.

## **CHAPTER 5: AN ASSESSMENT OF COMPLIANCE LEVELS AND DISCLOSURE QUALITY**

### **5.1 Introduction**

The previous two chapters discussed the technical requirements of IFRS goodwill impairment testing, the method employed in the assessment of compliance levels and disclosure quality, and the sample selection of Malaysian listed companies. This chapter examines the disclosure practice of a large sample of Malaysian listed companies based on the requirement of FRS 136. This research focuses specifically on evidence relating to the level of compliance with a variety of the provisions of FRS 136 and an assessment of the quality of disclosures provided in accordance with that Standard for a sample of large Malaysian listed companies which disclosed the existence of goodwill in each of the first two years in which they produced financial statements pursuant to IFRS. The quality and technical accuracy of the goodwill disclosures produced by these companies, together with an assessment of evidence of variation in these over time, provides an evidentiary basis for analysis. The focal question pondered in light of this evidentiary base pertains to the nature of companies responses to changes such as those brought about by continued development and reform of FRS.

This chapter is set out as follows. Section 5.2 builds on the method detailed in Chapter 4 – Research Method and describes the method developed to examine compliance and assess disclosure quality with regard to the Standard. Section 5.3 contains empirical results, and Section 5.4 offers some conclusions.



## 5.2 Method

The first research area focuses on the level of compliance and disclosure quality of goodwill with regard to the requirements of FRS 136 by examining the first two years, 2006 and 2007, of IFRS reporting in Malaysia. The method required a comparison to be made between the content of a company's impairment testing disclosure and a checklist of requirements derived from the text of FRS 136 and these has been discussed in detail in Chapter 4 – Research Method. The two-year transition period afforded a unique opportunity to interrogate the content of financial statements drawn up under new and complex standards, with a view to gaining insight into the quality of financial reporting.

The final data for this research was drawn from a sample of 275 companies in 2006 and 490 companies in 2007. Table 5.1 summarises the sample selection procedure and to facilitate the analysis of the final research sample, 275 companies in 2006 and 490 companies in 2007 were divided into 14 groups based on the Worldscope DataStream's Industry Group Classification as discussed in Chapter 4 – Research Method.

**Table 5.1 – Sample Selection Procedure**

Selection Procedure	Company year	
	2006	2007
All listed companies on Bursa Malaysia	1053	1053
Companies excluded due to:		
No reporting goodwill	(555)	(563)
Fiscal year-end other than 31 December	(223)	-
Total	275	490

### 5.3 Results

An overview of the research sample broken down by assigned industry is shown in Tables 5.2 and 5.3. Table 5.2 reports the ringgit value of the companies' goodwill and the average of goodwill within the industry, and the ringgit value of assets for each industry. At the date of sampling, the companies included in the final sample controlled assets valued at RM 1099 billion in 2006 and RM 1742 billion in 2007, which included goodwill of RM 36 billion in 2006 and RM 53 billion in 2007. Table 2 also shows that the average amount of goodwill decreased slightly in 2007 by comparison to 2006.

In 2006, for eight groups of industries, goodwill represented more than 5% of their total assets i.e. Industrial Products (6.8%), Miscellaneous (7.6%), Construction (7.8%), Electrical and Electronic (8.3%), Machinery and Equipment (10.4%), Automotive and Chemicals (12.7%), Technology (13.4%) and Utilities and Transportation (16.7%); in 2007, for seven groups of industries goodwill represented more than 5% of their total assets i.e. Construction (5.1%), Miscellaneous (5.7%), Electrical and Electronic (6.5%), Food and Beverage (6.7%), Utilities and Transportation (7.6%), Automotive and Chemicals (11%) and Technology (13.2%). These show that goodwill is an important asset not to be overlooked.

Table 5.3 reveals the analysis of average goodwill. In 2006, the average goodwill across the 275 sample companies comprised RM 146 million with a minimum goodwill balance of RM 0.002 million and a maximum goodwill balance of RM 6826 million. In 2007, the average goodwill across the 490 sample companies comprised RM 109 million with a minimum goodwill balance of RM 0.002 million and a maximum goodwill balance of RM 7271 million. As is evident from the data in Table 5.3, companies in four out of 14 industry groupings represented in the research sample reported increased value of average goodwill

in 2007 in comparison to 2006, suggesting that the data used for the purposes of analysis in this research were not primarily captive to large outlier movements.

Table 5.2 – Overview of Research Sample

Sector	No. of Companies		Total Goodwill (RM million)		Average Goodwill (RM million)		Goodwill as % Total Assets		Total Assets (RM million)	
	2006	2007	2006	2007	2006	2007	2006	2007	2006	2007
Automotive and Chemicals	19	17	1043	932	61	55	12.7%	11.0%	8215	8447
Construction	24	50	2015	2865	92	57	7.8%	5.1%	25 690	55 879
Consumer Products	17	37	702	1,421	47	38	3.3%	3.2%	21 334	44 974
Electrical and Electronic	19	30	463	615	31	21	8.3%	6.5%	5579	9478
Financials	23	33	14 395	14 659	800	444	1.7%	1.4%	828 775	1 042 846
Food and Beverage	19	29	427	1413	28	49	3.6%	6.7%	11 888	21 246
Industrial Products	19	45	326	764	17	17	6.8%	3.1%	4772	24 834
Machinery and Equipment	19	32	1949	3077	115	96	10.4%	4.9%	18 670	62 281
Miscellaneous	23	43	2573	4478	117	104	7.6%	5.7%	33 803	78 758
Plantation	13	21	276	2095	21	100	1.9%	4.8%	14 561	43 684
Properties	19	41	505	788	27	19	3.7%	2.1%	13 482	37 091
Technology	21	33	251	540	12	16	13.4%	13.2%	1873	4093
Trading	22	43	409	2908	22	68	1.0%	3.4%	43 138	86 549
Utilities and Transportation	18	36	11 121	16 886	654	469	16.7%	7.6%	66 787	221 408
<b>TOTAL</b>	<b>275</b>	<b>490</b>	<b>36 455</b>	<b>53 441</b>	<b>146</b>	<b>109</b>	<b>3.3%</b>	<b>3.1%</b>	<b>1 098 567</b>	<b>1 741 568</b>

Table 5.3 – Analysis of Average Goodwill by Sector

Sector	No. of Companies		Average Value of Goodwill (RM million)		Δ in Average Goodwill		Minimum Value of Goodwill (RM million)		Maximum Value of Goodwill (RM million)	
	2006	2007	2006	2007	ΔRM	Δ%	2006	2007	2006	2007
Automotive and Chemicals	19	17	61	55	-6.5	-10.6%	0.17	0.25	547	486
Construction	24	50	92	57	-34.3	-37.4%	0.01	0.02	1188	1188
Consumer Products	17	37	47	38	-8.4	-17.9%	0.01	0.01	412	455
Electrical and Electronic	19	30	31	21	-10.4	-33.6%	0.03	0.03	214	219
Financials	23	33	800	444	-355.5	-44.5%	0.13	0.53	4504	4474
Food and Beverage	19	29	28	49	20.3	71.2%	0.01	0.04	88	938
Industrial Products	19	45	17	17	-0.2	-1.0%	0.66	0.01	104	104
Machinery and Equipment	19	32	115	96	-18.5	-16.1%	0.08	0.01	1714	2053
Miscellaneous	23	43	117	104	-12.8	-11.0%	0.58	0.02	1187	1187
Plantation	13	21	21	100	78.5	369.9%	0.07	0.07	108	972
Properties	19	41	27	19	-7.4	-27.7%	0.11	0.03	211	150
Technology	21	33	12	16	4.4	36.9%	0.02	0.002	134	145
Trading	22	43	22	68	46.1	214.2%	0.002	0.002	91	1245
Utilities and Transportation	18	36	654	469	-185.1	-28.3%	0.10	0.01	6826	7271
<b>TOTAL</b>	<b>275</b>	<b>490</b>	<b>146</b>	<b>109</b>	<b>-37.3</b>	<b>-25.5%</b>	<b>0.002</b>	<b>0.002</b>	<b>6826</b>	<b>7271</b>

The first group of analytical procedures performed on the data gathered for this research focused on the use of CGUs as an element of the impairment testing process. A threshold question of interest was the degree to which the total reported value of each sample company's goodwill could be completely reconciled to the sum of the goodwill values disclosed as having been allocated that company's defined CGUs. Findings in relation to this threshold question are set out in Table 5.4.

As Table 5.4 demonstrates, a subset of 119 companies in 2006 and 224 companies in 2007 from the final research sample complied with the requirement to produce disclosures which facilitated full reconciliation between the balance sheet value of total goodwill and the total amount split between defined CGUs. Table 5.4 shows that there was an improvement in the rate of compliance, from 43.3% in 2006 to 45.7% in 2007. However, a subset of 156 companies (56.7%) in 2006 and 266 companies (54.3%) in 2007 failed to produce disclosures permitting reconciliation between their balance sheet goodwill and amounts allocated to CGUs. In many instances the reason for the lack of capacity to undertake this process of reconciliation stemmed from a total absence of disclosures pertaining to CGUs.

While some companies made no disclosures at all about the identity or nature of their defined CGUs, others<sup>118</sup> provided details of the identity and nature of their defined CGUs but failed to specify the ringgit value of goodwill allocated to each. It is possible that the explanation for the high frequency with which companies failed to provide the basic information relates to materiality-based considerations. For 112 of the 156 companies in

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118 Kumpulan Guthrie Berhad (2006) disclosed the existence of 19 CGUs, but failed to provide details of the amount of goodwill allocated to these. Apex Equity Holdings (2006) disclosed the existence of seven CGUs, but failed to provide details of the amount of goodwill allocated to these. Boon Koon Group (2007) disclosed the existence of two CGUs, but failed to provide details of the amount of goodwill allocated to these.

2006 and 193 of the 266 companies in 2007 where no meaningful CGU goodwill allocation disclosures were made, goodwill represented below 5% of total assets, a relatively small amount. (The list of companies is shown in Appendix A.) However, FRS 136 stipulates that the relevant value benchmark against which to determine materiality for the purposes of impairment testing disclosures is not total assets, but total intangible assets.<sup>119</sup> The application of this benchmark suggests that no materiality-based disclosure exclusion should have applied to the financial reports of these companies. A further 15 companies in 2006 and 18 companies in 2007 of the non-complying companies failed to provide meaningful disclosures pertaining to the allocation of goodwill to CGUs even though goodwill as a proportion of their balance sheets was very material. (The list of companies is disclosed in Appendix B.) It is difficult to understand the existence of any basis upon which these companies might have relied on for not producing disclosures in accordance with the requirements of FRS 136.<sup>120</sup>

In contemplating the results in Table 5.4, it is notable that slightly in excess of 50% of the sample in the two years failed to provide details of the manner in which they had allocated goodwill between CGUs for the purpose of impairment testing. This is contrary to the requirements of Paragraph 80 of FRS 136. More than representing a mere technical breach, failure to provide details in relation to CGUs creates fundamental difficulties for financial statement users wishing to undertake independent evaluation of the robustness of valuations ascribed to goodwill by reporting entities.

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<sup>119</sup> Paragraph 134 of FRS 136.

<sup>120</sup> It is notable that none of the audit reports of these companies was qualified in any way.

An obvious problem which arises where this information is not provided is the lack of capacity on the part of the financial statement user to understand how goodwill is distributed across a business, where it is concentrated and what types of underlying business activities it is principally associated with. This results in a diminished capacity on the part of financial statement users to develop detailed reporting entity impairment risk profiles.



Table 5.4 – CGU Allocation Compliance by Sector

Sector	No. of Companies		Fully compliant (no. of companies)		Non-compliant (no. of companies)	
	2006	2007	2006	2007	2006	2007
Automotive and Chemicals	19	17	6	7	13	10
Construction	24	50	9	21	15	29
Consumer Products	17	37	9	21	8	16
Electrical and Electronic	19	30	4	9	15	21
Financials	23	33	16	21	7	12
Food and Beverage	19	29	7	12	12	17
Industrial Products	19	45	8	17	11	28
Machinery and Equipment	19	32	8	14	11	18
Miscellaneous	23	43	16	24	7	19
Plantation	13	21	5	12	8	9
Properties	19	41	9	20	10	21
Technology	21	33	7	11	14	22
Trading	22	43	3	17	19	26
Utilities and Transportation	18	36	12	18	6	18
<b>TOTAL</b>	<b>275</b>	<b>490</b>	<b>119 (43.3%)</b>	<b>224 (45.7%)</b>	<b>156 (56.7%)</b>	<b>266 (54.3%)</b>

Beyond concerns over basic compliance, a key focus of this research was to gather evidence relating to the degree to which companies may have exercised discretion to configure their goodwill impairment testing processes in such a manner as to minimise the risk of forced impairment losses. One means of achieving this is to inappropriately aggregate defined CGUs, contrary to the admonitions of the Standard. The next matter examined for the purposes of the research, described as the CGU aggregation phenomenon, is substantially more complex than the threshold matter of value reconciliation addressed above.

The failure to fully allocate recognised goodwill to all defined CGUs is not the only notable risk issue. Perhaps a greater challenge to transparency and information quality stems from the possibility that an organisation allocates goodwill to too few CGUs. This could result in the avoidance of impairment charges where they would otherwise be necessary by reason of the volatility smoothing effect of combining imperfectly correlated asset portfolios, even though the constituent elements of these aggregated asset portfolios could be argued to be capable of generating independent streams of cash flows at a much lower level of aggregation than that implied by a reporting entity in choosing to define fewer rather than more CGUs for the purpose of impairment testing.

Thus, testing for the possibility of inappropriate CGU definition aggregation represents an important line of inquiry in assessing the degree to which impairments pursuant to the FRS 136 regime are likely to be recognised in a timely fashion and in assessing the quality and meaning of disclosures made by companies the subject of the Standard's regime. One potential means of detecting this form of behaviour is to compare the number of CGUs defined by companies with the number of business segments they disclosed in satisfaction of their segment reporting requirements. According to Paragraph 80

of FRS 136, CGUs, or groups of CGUs to which goodwill is allocated for the purpose of impairment testing, represent the lowest level within the company at which goodwill is monitored for internal management purposes but should not in general be larger than related segments as defined for segment reporting purposes.

This yields the expectation of a relationship between the number of defined business segments and the number of defined CGUs, pursuant to which systematic reporting of fewer CGUs than business segments may be interpreted as evidence of potential aggregation behaviour, with the consequence that the objectives of FRS 136 may be undermined, at least to a degree.<sup>121</sup> It is not necessary that this condition be demonstrated to reflect the underlying factual substratum of each company to which it is applied in order for it to yield potentially useful insights. Rather, the use of this comparison as an initial benchmark allows more ready identification of disclosure outliers worthy of further investigation.

The data in Table 5.5 suggest a tendency to define fewer rather than greater numbers of CGUs for the purposes of impairment testing. Seventy-six companies (27.6%) in 2006 and 145 companies (29.6%) in 2007 made meaningful disclosures about the identity of their CGUs; fewer CGUs than business segments were disclosed to exist. Companies appeared to define fewer CGUs in 2007 than they had defined in 2006, an observation consistent with the growth in the number of companies which were seen to define fewer CGUs than segments. For a further 24 companies (8.7%) in 2006 and 49 companies (10%) in 2007, the number of disclosed CGUs equaled the number of disclosed business segments.

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121 In the face of deep firm value losses, CGU aggregation would cease to function as an effective shield against required impairment charges.

For the remaining 21 companies (7.6%) in 2006 and 37 companies (7.5%) in 2007 where a comparison was possible, more CGUs than business segments were defined.

Examined on an industry-by-industry basis, it is clear that CGU aggregation risk is not evenly distributed. For example, companies in the Electrical and Electronic (three companies – 15.8% in 2006 and six companies – 20% in 2007), Food and Beverage (three companies – 15.8% in 2006 and eight companies – 27.6% in 2007), and Industrial Products industry segments (three companies – 15.8% in 2006 and ten companies – 22.2% in 2007) were far more likely to define fewer CGUs than business segments in 2007 than in 2006. Whereas three companies (14.3%) in 2006 and three companies (9.1%) in 2007 in the Technology industry and nine companies (50%) in 2006 and 10 companies (27.8%) in 2007 in the Utilities, and Transportation industry defined fewer CGUs than business segment.

On the other hand, companies in the Consumer Products sector tended to define more CGUs in 2007, with one company (5.9%) in 2006 and four companies (10.8%) in 2007. Similarly, it is evident from the data that failure to fulfill basic disclosure requirements is not an evenly distributed phenomenon, with Industrial Products, and Utilities and Transportation<sup>125</sup> companies over represented among the no effective disclosers. Companies in the Industrial Products industry showed an increase in no effective disclosure with 11 companies (7.1%) in 2006 to 27 companies (10.4%) in 2007. However, the Utilities and Transportation industry showed an increase in the number of no effective disclosure with six companies (18%) in 2006 and 18 companies (6.9%) in 2007.

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<sup>125</sup> Companies in the Industrial Products industry showed an increase in no effective disclosure with 11 companies (7.1%) in 2006 to 27 companies (10.4%) in 2007. However, the Utilities and Transportation industry showed an increase in the number of no effective disclosure with six companies (18%) in 2006 and 18 companies (6.9%) in 2007.

Overall, the data conveys an impression of a tendency to define fewer CGUs, to allocate relatively large sums of goodwill to the small number of defined CGUs leaving the impression that goodwill is being monitored at a very high level only. This is the dominant trend in the data, and provides a strong basis for concern that there are numerous instances in which companies incorporated into the research sample defined a smaller than appropriate number of CGUs, with the consequence that the impairment testing process is less rigorous and less robust. Potentially valuable information is lost in the presence of the CGU aggregation problem. By defining too few CGUs relative to the true number of operating units within the organisation which generate independent streams of cash flows and with which at least some goodwill is associated, the level of disclosure transparency achieved falls, and the risk that impairment losses which should be recognised in a given period are not recognised in that period.

In order to gain further insight into the degree to which this problem afflicts the quality of impairment testing and disclosures pursuant to FRS 136, a CGU to business segment ratio was calculated for each of the sample companies. This research then gathered and analysed data pertaining to the number of entities controlled by each of the companies in the sample, the number of business segments those companies reported and (where possible), the number of CGUs defined by each of the companies in the sample. The results for these analyses is set out in Table 5.6.

Table 5.5 – Business Segments and CGU Aggregation by Segment

Sector	No. of Companies		No. CGUs > No. Segments		No. CGUs = No. Segments		No. CGUs < No. Segments		No effective disclosure	
	2006	2007	2006	2007	2006	2007	2006	2007	2006	2007
Automotive and Chemicals	19	17		2			6	5	13	10
Construction	24	50			1	5	8	17	15	28
Consumer Products	17	37	1	4	1	4	7	14	8	15
Electrical and Electronic	19	30			1	3	3	6	15	21
Financials	23	33	2	4	2		12	17	7	12
Food and Beverage	19	29	1	4	3	1	3	8	12	16
Industrial Products	19	45	2	4	3	4	3	10	11	27
Machinery and Equipment	19	32	3	3	1	2	4	9	11	18
Miscellaneous	23	43	4	6	3	6	9	13	7	18
Plantation	13	21	3	3	2	3		6	8	9
Properties	19	41	1			1	9	20	9	20
Technology	21	33	2	4	3	5	3	3	13	21
Trading	22	43	2		1	10		7	19	26
Utilities and Transportation	18	36		3	3	5	9	10	6	18
<b>TOTAL</b>	<b>275</b>	<b>490</b>	<b>21 (7.6%)</b>	<b>37 (7.5%)</b>	<b>24 (8.7%)</b>	<b>49 (10.0%)</b>	<b>76 (27.6%)</b>	<b>145 (29.6%)</b>	<b>154 (56.0%)</b>	<b>259 (52.9%)</b>

A more granular means of achieving insights into the potential CGU aggregation problem involved construction of mean defined CGUs to defined segment ratios for each of the sample companies. This analysis builds upon the procedure described in Table 5.5 and also points to the likelihood of CGU aggregation behaviour among reporting entities. To assist in the interpretation of this data the relationship between the number of controlled entities reported as being in existence at the balance date, and the numbers of business segments and CGUs, was examined. Although certainly not a perfect proxy for prior acquisition activity, a review of the number of controlled entities may point to the variety of occasions in the past in which an acquisition event potentially triggering the existence of goodwill has taken place.

More detailed evidence in relation to the CGU aggregation problem can be seen in Table 5.6, which sets out the analysis of average controlled entities, business segments and CGUs. Though it is entirely natural to expect substantially lower business segments and defined CGUs than controlled subsidiaries, controlled subsidiaries nonetheless have often come into the orbit of a group via acquisition transactions, suggesting a link to goodwill. Management may not monitor goodwill arising from these acquisitions on a controlled-entity-by-controlled-entity basis. However, observation of a highly skewed relationship between a company's quantum of controlled entities, business segments and defined CGUs may serve as a useful indicator of the risk of inappropriate CGU aggregation.

On balance, the data disclose a pattern that suggests that inappropriate CGU aggregation is a real, not an imagined, phenomenon. A number of industries<sup>126</sup> examined

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126 In 2006, Consumer Products, Financials, Miscellaneous, Plantation, Properties, Trading and Utilities, and Transportation; and in 2007, Consumer Products, Electrical and Electronic, Financials, Miscellaneous, Plantation, Properties, Trading and Utilities, and Transportation.

defined relatively few CGUs in comparison to business segments and controlled entities. On face value, this means that in many companies, the value of goodwill is being monitored only at very high levels. Alternatively, the data suggest the possibility of a disjuncture between actual management monitoring practices and those claimed for financial reporting purposes.

Table 5.6 shows that the overall CGU to segment ratios are 0.33:1 in 2006 and 0.31:1 in 2007. Examination on an industry-by-industry basis confirmed that the sample of companies in this research defined excessively few CGUs with a view to avoiding unwanted asset impairment charges. With a minimum ratio of 0.12:1 (Trading) in 2006 and 0.13:1 (Electrical and Electronic) in 2007, and a maximum ratio of 0.61:1 (Miscellaneous) in 2006 and 0.44:1 (Financials and Plantation) in 2007, a possible interpretation of the data is that by 2007, companies became more attuned to the capacity to avoid undesired impairment charges via the aggregation of CGUs. The consequences of this type of activity could extend to overstatements of earnings and net assets, understatements of leverage and reduced reporting transparency.

The results set out in Tables 5.5 and 5.6 are best contextualised by reference to Paragraph 80 of FRS 136, which sets out the framework pursuant to which companies define CGUs for the purpose of impairment testing. They suggest that there is the possibility that goodwill is internally monitored at a far higher level of aggregation than that implicit in the business segments defined by the company to satisfy the requirements of FRS 114 – *Segment Reporting* and thus interpreted as evidence pointing to the existence of CGU aggregation.



Table 5.6 – Analysis of Business Segments and CGUs by Sector

Sector	No. of Companies		Average No. of Controlled Entities		Average No. of business segments		Average no. of CGUs		Ratio of CGUs to Business Segments		Δ in Ratio
	2006	2007	2006	2007	2006	2007	2006	2007	2006	2007	Δ
Automotive and Chemicals	19	17	11.8	13.18	2.7	2.8	1.3	1.6	0.15 : 1	0.23 : 1	53.3%
Construction	24	50	20.8	21.9	3.0	3.3	1.7	1.8	0.21 : 1	0.23 : 1	9.5%
Consumer Products	17	37	29.7	25.08	3.4	3.0	2.3	1.9	0.36 : 1	0.38 : 1	5.6%
Electrical and Electronic	19	30	16.3	13.27	3.1	2.7	2.0	1.2	0.14 : 1	0.13 : 1	-7.1%
Financials	23	33	38.6	32.27	5.7	4.9	3.9	3.6	0.48 : 1	0.44 : 1	-8.3%
Food and Beverage	19	29	18.4	18.45	2.2	2.6	1.9	1.6	0.31 : 1	0.28 : 1	-9.7%
Industrial Products	19	45	14.7	16.49	2.8	2.8	2.4	2.0	0.36 : 1	0.28 : 1	-22.2%
Machinery and Equipment	19	32	18.5	20.81	2.6	2.8	2.6	2.1	0.43 : 1	0.33 : 1	-23.3%
Miscellaneous	23	43	24.2	24.49	2.4	2.9	2.1	1.9	0.61 : 1	0.39 : 1	-36.1%
Plantation	13	21	27.5	36.33	2.8	3.2	3.2	2.5	0.43 : 1	0.44 : 1	2.3%
Properties	19	41	23.8	25.68	3.6	3.5	2.0	1.7	0.29 : 1	0.25 : 1	-16.0%
Technology	21	33	5.5	8.03	1.7	1.7	1.5	1.7	0.33 : 1	0.36 : 1	9.1%
Trading	22	43	37	44.28	3.7	3.5	3.3	2.4	0.12 : 1	0.27 : 1	125.0%
Utilities and Transportation	18	36	20.7	25.25	3.2	2.9	1.7	2.1	0.37 : 1	0.35 : 1	-5.7%
<b>TOTAL</b>	<b>275</b>	<b>490</b>	<b>22.1</b>	<b>23.25</b>	<b>3.1</b>	<b>3.06</b>	<b>2.3</b>	<b>1.99</b>	<b>0.33 : 1</b>	<b>0.31 : 1</b>	<b>-6.1%</b>

The disclosures pertaining to goodwill impairment testing required under FRS 136 extend beyond CGU definition. Detailed information is required of disclosing entities in relation to the choice of technique employed to estimate the recoverable amount of CGU assets and thus determine whether goodwill impairment has occurred. Further, dependant on the choice of technique employed to determine the recoverable amount, detailed disclosures of relevant assumptions supporting the estimation process are also required. Table 5.7 sets out an overview of the frequency with which the companies in the research sample adopted the two allowable methods for recoverable amount determination, VIU and fair value.

Table 5.7 shows that 127 companies (46.2%) in 2006 and 168 companies (34.3%) in 2007 failed to disclose the method used to determine the recoverable amount of CGU assets. In 2006, the highest proportion of these companies fell within the Trading sector with 15 companies (11.8%); in 2007, the highest proportion was within the Construction sector with 22 companies (13.1%). It is clearly shown that these companies are in breach of FRS 136, due to their failure to disclose the information regarding the method employed to determine the recoverable amount. Of those companies which did make meaningful disclosures on this matter, it is evident that the main approach used as a basis for the estimation of recoverable amount was VIU, pursuant to which the recoverable value of CGU net assets is estimated via the construction of a discounted cash flow model of CGU pre-tax cash flows. This method was adopted by 133 companies (48.4%) in 2006 and 299 companies (61%) in 2007. As noted in Section 5.3, this choice has consequences for the nature and content of disclosures companies are required to make in relation to the process of impairment testing.

Nine companies (3.3%) in 2006 and 15 companies (3.1%) in 2007 employed a combination of VIU and fair value<sup>127</sup> as the basis for the estimation of the recoverable amount, while six companies (2.2%) in 2006 and eight companies (1.6%) in 2007 exclusively adopted fair value for undertaking this task. In Malaysia, the opportunity to use a fair value approach as a basis for estimating the CGU recoverable amount is limited given the general absence of active and liquid asset markets (Fah, 2006). This could explain why there are a few companies in the final research sample who adopted fair value as the basis for estimating the CGU recoverable amount.

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127 That is, used VIU for some defined CGUs and fair value for others.

Table 5.7 – Method Employed to Determine Recoverable Amount

Sector	No. of Companies		Fair Value Method		VIU Method		Mixed Method		Method not Disclosed	
	2006	2007	2006	2007	2006	2007	2006	2007	2006	2007
Automotive and Chemicals	19	17	1		6	13			12	4
Construction	24	50			11	28			13	22
Consumer Products	17	37			10	28	1	1	6	8
Electrical and Electronic	19	30	1		6	16			12	14
Financials	23	33	2	1	15	22	1	3	5	7
Food and Beverage	19	29	1	1	10	19			8	9
Industrial Products	19	45			7	25	3	3	9	17
Machinery and Equipment	19	32			11	18			8	14
Miscellaneous	23	43		1	18	33	1	1	4	8
Plantation	13	21			7	16			6	5
Properties	19	41	1	5	5	15	2	2	11	19
Technology	21	33			10	19		2	11	12
Trading	22	43			6	22	1	3	15	18
Utilities and Transportation	18	36			11	25			7	11
<b>TOTAL</b>	<b>275</b>	<b>490</b>	<b>6 (2.2%)</b>	<b>8 (1.6%)</b>	<b>133 (48.4%)</b>	<b>299 (61%)</b>	<b>9 (3.3%)</b>	<b>15 (3.1%)</b>	<b>127 (46.2%)</b>	<b>168 (34.3%)</b>

Because VIU was the dominant method elected as the basis for CGU recoverable amount estimation, the question of the degree to which companies using this approach complied with the resulting disclosure obligations pursuant to FRS 136 arises. The adoption of the VIU method as a basis for estimating the CGU recoverable amount requires reporting entities to disclose substantial volumes of data pertaining to the core assumptions upon which discounted cash flow models used to determine VIU are based. An inspection of the assumptions made in relation to key factors such as discount rates, growth rates and forecast periods supports the development of a more nuanced comprehension of the degree of conservatism or aggression inherent in the development of VIU estimates, meaning that these are also of primary interest in developing an understanding of the operation of the goodwill reporting regime.

FRS 136 requires that disclosures relating to discount rates used in the value modelling process are pre-tax, and set on the basis of the business risk inherent in each defined CGU. This means that the discount rates employed should not reflect company financing structure decisions and ought to show variation where business risk differs across CGUs. This information is of fundamental value to financial statement users wishing to independently evaluate the robustness of the impairment testing process applied by a company. The next data set, relating to discount rates method in discounted cash flow modelling of VIU (where this was the method used to assess recoverable amount) is presented in Table 5.8.

The disclosures produced by the companies included in the sample show a regrettable lack of consonance with the requirements of the Standard. 166 companies (61.7%) in 2006 and 253 companies (52.5%) in 2007 failed to provide any information

relating to discount rates employed for the purposes of goodwill impairment testing which would enable a financial professional to meaningfully quantify the discount rate used as part of the cash flow projections.<sup>128</sup> This is an extremely basic requirement of FRS 136, yet a surprising number of large, well-resourced companies failed either in 2006 or 2007 to fulfill this requirement, or to be brought into check on the matter by their auditors or other stakeholders.

Ten companies (3.7%) in 2006 and 17 companies (3.5%) in 2007 disclosed a range of discount rates employed for the purposes of the value estimation exercise, but provided no details of specific discount rates used in each CGU. This form of disclosure yields little useful insight into the risk profile of the various defined CGUs or other information which would assist financial statement users with the development of insights into the robustness of the testing process. Thus, in approximately 65% of observed cases in 2006 and 56% in 2007, the discount rate disclosures provided by sample companies were effectively useless for facilitating independent analysis of the impairment testing process.

A further 72 companies (26.8%) in 2006 and 186 companies (38.6%) in 2007 reported that they had applied a single standardised discount rate in the valuation simulation exercises applying to all of their defined CGUs. This appears to conflict with the clear expectation of FRS 136, that discount rates employed in recoverable amount simulations should reflect the business risk inherent in each CGU. Thus, either each of the CGUs used by these organisations displays an eerie homogeneity of underlying business risk, or there must be room to at least raise questions about the appropriateness of the discount

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128 Companies in this category made generalised statements to the effect that they had employed an 'appropriate risk adjusted discount rate', or similar wording. However, this left the financial statement user none the wiser as to the actual rate which had been used.

rates used to model the recoverable value in some of these organisations' CGUs. Given the potentially material sensitivity, discounted cash flow models can exhibit relatively small changes in discount rates. This is a matter for concern and thus suggests not only poorer than required disclosure quality but also less than complete compliance with the requirements of the Standard.

One striking feature of the data is the infrequency with which companies adopting the VIU approach selected and explicitly disclosed different discount rates for each of their defined CGUs. Only 21 companies (7.8%) in 2006 and 26 companies (5.4%) in 2007 stipulated individualised risk-adjusted discount rates for each CGU, and explicitly disclosed these. This improved the quality of disclosure pertaining to FRS 136 and provides useful insight for external analysts on the process of impairment testing employed by the sample companies.

Table 5.8 – Discount Rate Method (VIU and Mixed Method Companies Only)

Sector	No. Of Companies		Multiple Explicit Discount Rates		Single Explicit Discount Rates		Range of Discount Rates		No Effective Disclosure	
	2006	2007	2006	2007	2006	2007	2006	2007	2006	2007
Automotive and Chemicals	18	17		2	3	7	1		14	8
Construction	24	50		1	7	22	1	1	16	26
Consumer Products	17	37	2	2	6	17	3	3	6	15
Electrical and Electronic	18	30			3	8			15	22
Financials	21	32	7	8	4	12		2	10	10
Food and Beverage	18	28	1	1	4	11			13	16
Industrial Products	19	45	1		7	21			11	24
Machinery and Equipment	19	32	2	4	4	8	2	2	11	18
Miscellaneous	23	42	2	1	12	16		3	9	22
Plantation	13	21	1	1	4	9		1	8	10
Properties	18	36	2	1	2	11	1		13	24
Technology	21	33			6	14	1	2	14	17
Trading	22	43		2	4	12	1	3	17	26
Utilities and Transportation	18	36	3	3	6	18			9	15
<b>TOTAL</b>	<b>269</b>	<b>482</b>	<b>21 (7.8%)</b>	<b>26 (5.4%)</b>	<b>72 (26.8%)</b>	<b>186 (38.6%)</b>	<b>10 (3.7%)</b>	<b>17 (3.5%)</b>	<b>166 (61.7%)</b>	<b>253 (52.5%)</b>



Aside from the lack of consistent adherence to the disclosure framework for discount rates set out in FRS 136, it was also apparent that anomalies existed with respect to the value chosen for the discount rate employed by some companies for application within the impairment testing process. Not only do the ranges of disclosed discount rates employed within industry groupings appear wide, but the minimum rates employed by companies captured in the sample appear in some cases to be inexplicably low. This results in the risk that impairment charges, which ought to have been recognised, were inappropriately deferred.

Table 5.9 reveals that, in 10 of the 14 industry segments represented in the final research sample in both years, the minimum disclosed discount rate lay in the range of 2% to 5%. In some cases, defined discount rates appear to be inexplicably low; for example, the company in the Consumer Products segment that disclosed the use of a pre-tax discount rate of 2.4%<sup>129</sup> in both years. Compared to yields available on average Malaysian Government Security at 4.31% in 2006 and 3.68% in 2007,<sup>130</sup> this seems to be a lower than common estimate of the long-run risk-free rate. There was a small uplift in maximum discount rates used to discount cash flow for the purpose of impairment testing, but there was no evidence of a significant variation in the selection of discount rates for both years after FRS implementation. The consistency between discount rate data observed in 2006 and 2007 suggests that this is likely a persistent, rather than a transient, year-of-adoption phenomenon.

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129 Pelikan Int'l Corp. applied a 2.4% pre-tax discount rate in 2006 and 2007 when testing for goodwill impairment.

130 See: Central Bank of Malaysia, MGS Indicative Price, available at:  
<http://www.bnm.gov.my/statistics/govtsecuritiesyield.php?sdate=2006-12-29&lang=>

Malaysian companies exhibited far greater dispersion (between maximum and minimum) in discount rates, used lower discount rates and exhibited a greater tendency to select absurdly low<sup>131</sup> discount rates. The consequence of this substantial variation is that the discount rates employed by the companies studied ranged between 2.4% at the lower end and 32% at the upper end, with an arithmetic mean pre-tax discount rate of 8.96% in 2006 and 8.91% in 2007, but high dispersion around the mean. A downward bias was revealed in applied discount rates, which potentially avoids the recognition of impairment charges and has a material impact on the financial statements.

Paragraph 55 of FRS 136 requires that under the VIU method, the discount rate used to test goodwill impairment must be a pre-tax discount rate. While not all the companies that adopted a VIU method have provided effective disclosure on their discount rates, two companies, Compugates Holdings (2007) and Silver Bird Group (2007), specifically stated they had used a post-tax discount rate for the purpose of impairment testing. Note 8 of the 2007 financial statements for Compugates Holdings states: 'These calculations use post-tax cash flow projections based on financial budgets approved by management covering a period of five years – discount rate – 7%', and Note 10 of the 2007 financial statements for Silver Bird Group states: 'These calculations use post-tax cash flow projections based on financial budgets approved by management – discount rate – 14%'. It is also noted that Paragraph 50(b) of FRS 136 requires that future cash flow estimates used in testing goodwill impairment are prepared on a pre-tax basis (i.e. the cash flows do not include estimates of income tax receipts or payments). Thus, it is clear that Compugates Holdings and Silver Bird Group used post-tax cash flows to test for impairment, and certainly in such a scenario, the

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<sup>131</sup> For example, rates at or below the risk-free rate of return, as proxies for the long-term government bond rate in the jurisdiction under study.

recoverable amount of CGU assets is more likely to be overstated, potentially avoiding the recognition of an impairment loss. While the distinction between pre-tax and post-tax rates may be subtle, the resulting impact on the financial statements may be material.

Overall, three key themes emerge in relation to the discount rate issue. First, the non-compliance rate with the basic requirement to disclose discount rates is surprisingly high. Second, most companies appear to be undertaking their impairment testing procedures using blanket whole of company discount rates when what is required in order for the results of the impairment testing process to be robust is the application of CGU-specific risk-adjusted discount rates. Companies continued to either resist the requirement that they define multiple explicit discount rates suited to the characteristics of each CGU, or alternatively had technical difficulty in doing so. This reduces the quality of disclosures made pursuant to FRS 136, and lowers the capacity of financial statement users to independently evaluate the extent to which values assigned to assets such as goodwill are robust. Third, there is some evidence of the use of aggressively low discount rates, with the result that CGU asset portfolio recoverable values will have been overestimated and potential goodwill impairment losses deferred or avoided.

Table 5.9 – Discount Rate Disclosures (VIU and Mixed Method Companies Only)

Sector	No. Of Companies		Minimum Pre-tax Discount Rate		Δ in Minimum Value Discount Rate		Maximum Pre-tax Discount Rate		Δ in Maximum Value Discount Rate	
	2006	2007	2006	2007	Δ bps	Δ %	2006	2007	Δ bps	Δ %
Automotive and Chemicals	18	17	6.5%	6.5%	0	0.0%	12.0%	12.0%	0	0.0%
Construction	24	50	5.2%	4.5%	-70	-13.3%	13.6%	13.0%	-60	-4.4%
Consumer Products	17	37	2.4%	2.4%	0	0.0%	31.5%	32.0%	50	1.6%
Electrical and Electronic	18	30	8.0%	6%	-200	-25.0%	15.0%	15.0%	0	0.0%
Financials	21	32	4.0%	3.4%	-60	-15.0%	13.6%	30.3%	1670	122.8%
Food and Beverage	18	28	4.1%	3%	-110	-26.8%	10.0%	10.3%	30	3.0%
Industrial Products	19	45	3.7%	3.5%	-20	-5.4%	23.0%	14.8%	-820	-35.7%
Machinery and Equipment	19	32	3.7%	3.8%	10	2.7%	16.0%	20.0%	400	25.0%
Miscellaneous	23	42	5.0%	5.8%	81	16.2%	16.0%	12.6%	-340	-21.5%
Plantation	13	21	5.0%	3.9%	-115	-23.5%	9.2%	10.3%	110	11.7%
Properties	18	36	5.0%	3.3%	-170	-34.0%	15.0%	15.0%	0	0.0%
Technology	21	33	5.0%	5%	0	0.0%	15.0%	16.0%	100	6.7%
Trading	22	43	5.0%	4.9%	-8	-1.6%	14.0%	27.9%	1390	99.3%
Utilities and Transportation	18	36	6.3%	6%	-30	-4.0%	19.7%	16.3%	-340	-17.3%
<b>TOTAL</b>	<b>269</b>	<b>482</b>	<b>2.4%</b>	<b>2.4%</b>	<b>0</b>	<b>0.0%</b>	<b>31.5%</b>	<b>32.0%</b>	<b>50</b>	<b>1.6%</b>

Similar difficulties and anomalies were evident in the disclosures provided by sample companies in relation to growth rate estimates employed for the purposes of CGU recoverable amount modelling. These variables are as material to the determination of discounted cash flow as discount rates. The lack of refined detail presented by most of the companies in the sample appears to cut against the grain of the requirements defined in FRS 136, and results in the clouding of a vital window into the impairment testing process. Table 5.10 reports on the disclosure for estimating future growth rate by companies in this sample.

Even fewer companies provided growth rate data than provided discount rate data, with approximately 70% of the research sample failing to provide any information on this matter. The disclosure quality in relation to growth rate is worse than that made in relations to discount rate. A total of 206 companies (76.6%) in 2006 and 343 companies (71.2%) in 2007 did not disclose the growth rate used in estimating the recoverable amount for impairment testing and thus failed to provide information which would assist external analysts in undertaking a basic independent assessment of the rigor of the impairment testing process. Given the central role played by growth rate data in the development of cash flow models, and the explicit disclosure requirements stipulated under FRS 136, this lack of transparency is disappointing.

Of those firms that did disclose growth rate estimates, 42 companies (15.6%) in 2006 and 91 companies (18.9%) in 2007 provided a single point estimate of growth for all future time periods, consistent across all defined CGUs. This shows that growth rates disclosure experienced an increase in single explicit growth. Yet this is inconsistent with the requirement of FRS 136 that growth rates be attuned to the circumstances of individual

CGUs and that growth rates may vary across the forecast horizon. Thus, the observed companies failed to provide information that would assist external analysts to conduct a basic independent assessment of the impairment testing process. Only a small number of companies, 13 (4.8%) in 2006 and 22 (4.6%) in 2007, used more sophisticated step forecast models which have the capacity to better incorporate and reflect variations in prospective business conditions than the single phase models most companies selected. Again, this raises questions about the reliability and robustness of the models used by companies to generate critical VIU estimates and hence drive impairment assessments.

Table 5.10 – Growth Rate Method (VIU and Mixed Method Companies Only)

Sector	No. of Companies		Multiple Explicit Growth Rates		Single Explicit Growth Rates		Range of Growth Rates		No Effective Disclosure	
	2006	2007	2006	2007	2006	2007	2006	2007	2006	2007
Automotive and Chemicals	18	17	1	1		2			17	14
Construction	24	50		1	3	10	1	3	20	36
Consumer Products	17	37	1	2	4	8	2	5	10	22
Electrical and Electronic	18	30				2		1	18	27
Financials	21	32	1	2	5	8		4	15	18
Food and Beverage	18	28			2	5			16	23
Industrial Products	19	45	2	3	1	5	2	4	14	33
Machinery and Equipment	19	32		2	3	3	1		15	27
Miscellaneous	23	42	3	3	5	8	1	2	14	29
Plantation	13	21	1	1	2	6		1	10	13
Properties	18	36		1	3	5	1	1	14	29
Technology	21	33		1	7	10			14	22
Trading	22	43		1	3	9		3	19	30
Utilities and Transportation	18	36	4	4	4	10		2	10	20
<b>TOTAL</b>	<b>269</b>	<b>482</b>	<b>13(4.8%)</b>	<b>22(4.6%)</b>	<b>42(15.6%)</b>	<b>91(18.9%)</b>	<b>8(3.0%)</b>	<b>26(5.4%)</b>	<b>206 (76.6%)</b>	<b>343(71.2%)</b>

Just as the dispersion of discount rates is notable, so too is the wide dispersion in assumed growth rates within industry groupings, with surprisingly high assumed growth rates exhibiting in industries such as Construction and Financials, without adequate explanation. This data is shown in Table 5.11. Indeed, the lack of explanation for growth rates in cases where any disclosure in relation to assumed growth rates was made, substantially lowered the quality of the information set, and represented a further deviation from the requirements of FRS 136. Further, just as many companies appear to have employed inappropriate whole of enterprise discount rates, so too most companies which made meaningful disclosures in relation to growth rates used a standard whole of company growth rate in their cash flow modelling, despite the likelihood that growth prospects vary substantially even within the various elements of an individual company.

Table 5.11 shows that there was evidence of the employment of highly unusual growth estimates in a number of cases, the most egregious example being the company<sup>132</sup> which disclosed that its recoverable value estimation process had been predicated on an assumption of growth at a compounded rate of 50% in 2006 and 62% in 2007<sup>133</sup> in perpetuity after the conclusion of the explicit cash flow forecast period built into its recoverable amount estimation model. Paragraph 36 of FRS 136 indicates that the growth rates employed in the context of recoverable amount modelling shall not exceed the long-term average growth rate for the products, industries, or country or countries in which the company operates, unless a higher growth rate can be justified. However, SCOMI's growth rate is extremely high in the context of industry, long-term global and local GDP growth, and

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132 Scomi Group Berhad.

133 Scomi Group Berhad reported in the notes to the account that 'the weighted average growth rates are consistent with the forecast included in industry reports'.



no apparent justification for this highly unusual view of growth was offered. Again, this raises questions not only about the level and nature of compliance with the precepts of accounting standards but also with the technical reliability and robustness of the impairment testing process undertaken by the companies in the sample.

Table 5.11 – Growth Rate Disclosures (VIU and Mixed method Companies only)

Sector	No. Of Companies		Minimum Terminal Value Growth Rate		Δ in Minimum Terminal Value Growth Rate		Maximum Terminal Value Growth Rate		Δ in Max Terminal Value Growth Rate	
	2006	2007	2006	2007	Δ bps	Δ %	2006	2007	Δ bps	Δ %
Automotive and Chemicals	18	17	35.0%	5.0%	-3000	-85.7%	50.0%	62.0%	1200	24.0%
Construction	24	50	1.0%	0.0%	-100	-100.0%	10.0%	50.0%	4000	400.0%
Consumer Products	17	37	0.0%	0.0%	0	0.0%	15.3%	49.0%	3370	220.3%
Electrical and Electronic	18	30	NA	0.0%	NA	NA	NA	25.0%	NA	NA
Financials	21	32	0.0%	0.0%	0	0.0%	20.0%	58.0%	3800	190.0%
Food and Beverage	18	28	0.0%	0.0%	0	0.0%	5.0%	20.0%	1500	300.0%
Industrial Products	19	45	0.0%	0.0%	0	0.0%	39.0%	30.0%	-900	-23.1%
Machinery and Equipment	19	32	4.0%	2.0%	-200	-50.0%	10.0%	30.0%	2000	200.0%
Miscellaneous	23	42	0.0%	0.0%	0	0.0%	40.8%	47.3%	650	15.9%
Plantation	13	21	5.0%	0.0%	-500	-100.0%	7.0%	20.0%	1300	185.7%
Properties	18	36	0.0%	0.0%	0	0.0%	10.0%	23.2%	1320	132.0%
Technology	21	33	5.0%	0.0%	-500	-100.0%	15.0%	30.0%	1500	100.0%
Trading	22	43	0.0%	0.0%	0	0.0%	5.0%	26.0%	2100	420.0%
Utilities and Transportation	18	36	0.0%	0.0%	0	0.0%	24.0%	24.0%	0	0.0%
<b>TOTAL</b>	<b>269</b>	<b>482</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0</b>	<b>0.0%</b>	<b>50%</b>	<b>62%</b>	<b>1200</b>	<b>24.0%</b>

The final matter reviewed in the case of companies that adopted the VIU approach related to disclosures made about the explicit cash flow forecast horizon used in their value modeling processes. Table 5.12 reports that 113 companies (42%) in 2006 and 224 companies (47%) in 2007 failed to provide any meaningful information about this matter, despite the express requirement to do so under FRS 136. One company (0.4%) in 2006 and one company (0.2%) in 2007 provided details of a range of forecast periods that had been used in the value estimation exercise, but no details of specific forecast periods used in relation to particular CGUs, leaving financial statement users at a loss when attempting to understand the period applied to particular CGUs. Though the rate of non-compliance with this information requirement was lower than in the case of the growth rate disclosure requirements discussed above, it is nonetheless surprisingly high given the size, access to resources and sophistication of the companies in the research sample.

The data suggests that the structure of the discounted cash flow models used by companies as tools for the estimation of CGU asset portfolio recoverable values tended to be simple, as evidenced by the dominant selection of a single explicit cash flow forecast horizon, followed by a terminal value perpetuity component. As Table 5.12 shows, 152 companies (57%) in 2006 and 254 companies (53%) in 2007 constructed their models in this way. Only a small number of companies (three (1%) in 2006 and three (0.6%) in 2007) used more sophisticated step forecast models which have the capacity to better incorporate and reflect variations in prospective business conditions than the single phase models most companies selected. Again, this raises questions about the reliability and robustness of the models used by companies to generate critical VIU estimates and hence drive impairment assessments.

A further notable feature of the data is the wide range of forecast periods applied by companies within each defined industry grouping as shown in Table 5.13. The consequence of this substantial variation is that the forecast periods employed by the companies studied ranged between one year at the lower end and 30 years at the upper end, with an arithmetic mean forecast period of 2.39 years in 2006 and 5.44 years in 2007, but high dispersion around the mean. In some cases, the defined forecast period appeared to be inexplicably low; for example, the company in the Food and Beverage industry that disclosed the use of a one-year forecast period – a period lower than the five years suggested by the Standard. In other cases, the forecast period was very high; one company in the Miscellaneous segment disclosed the use of a 30<sup>134</sup>-year forecast period. Paragraph 35 of FRS 136 stipulates that the forecasting period shall cover a maximum period of five years and management may use cash flow projections based on financial budgets/forecasts over a period longer than five years if it is confident that these projections are reliable and it can demonstrate its ability, based on past experience, to forecast cash flows accurately over that longer period. However, Puncak Niaga's forecast period is way too high and there is no apparent justification for this highly unusual view of forecast period.

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134 Puncak Niaga Holdings.

Table 5.12 – Forecast Period (VIU and Mixed Method Companies Only)

Sector	No. of Companies		Multiple Explicit Forecast Period (years)		Single Explicit Forecast Period (years)		Range of Forecast Period (years)		No Effective Disclosure	
	2006	2007	2006	2007	2006	2007	2006	2007	2006	2007
Automotive and Chemicals	18	17	1	1	10	10			7	6
Construction	24	50			14	25			10	25
Consumer Products	17	37			11	15			6	22
Electrical and Electronic	18	30			5	19			13	11
Financials	21	32	1	1	14	20			6	11
Food and Beverage	18	28			11	16			7	12
Industrial Products	19	45			11	22			8	23
Machinery and Equipment	19	32			9	15			10	17
Miscellaneous	23	42	1	1	17	25			5	16
Plantation	13	21			8	12			5	9
Properties	18	36			5	13	1	1	12	22
Technology	21	33			13	17			8	16
Trading	22	43			10	22			12	21
Utilities and Transportation	18	36			14	23			4	13
<b>TOTAL</b>	<b>269</b>	<b>482</b>	<b>3 (1.0%)</b>	<b>3 (0.6%)</b>	<b>152 (57.0%)</b>	<b>254 (53.0%)</b>	<b>1 (0.4%)</b>	<b>1 (0.2%)</b>	<b>113 (42.0%)</b>	<b>224 (47.0%)</b>

Table 5.13 – Forecast Period Disclosures (VIU and Mixed Method Companies Only)

Sector	No. of Companies		Avg. Explicit Forecast Period (years)		Minimum Forecast Period (years)		Δ in Minimum Forecast Period (years)		Maximum Terminal Forecast Period (years)		Δ in Maximum Forecast Period (years)	
	2006	2007	2006	2007	2006	2007	Δ bps	Δ %	2006	2007	Δ bps	Δ %
Automotive and Chemicals	18	17	4.73	4.73	3	3	0	0.0%	7	7	0	0.0%
Construction	24	50	5.07	5.16	3	3	0	0.0%	10	10	0	0.0%
Consumer Products	17	37	5.00	5.05	3	3	0	0.0%	7	10	300	42.9%
Electrical and Electronic	18	30	4.00	4.82	3	3	0	0.0%	5	8	300	60.0%
Financials	21	32	4.97	6.02	3	3	0	0.0%	20	20	0	0.0%
Food and Beverage	18	28	6.64	5.50	1	1	0	0.0%	15	13	-200	-13.3%
Industrial Products	19	45	5.45	5.27	3	3	0	0.0%	10	10	0	0.0%
Machinery and Equipment	19	32	4.78	4.73	3	3	0	0.0%	5	5	0	0.0%
Miscellaneous	23	42	7.28	7.58	3	4	100	33.3%	30	30	0	0.0%
Plantation	13	21	6.25	6.92	3	3	0	0.0%	12	20	800	66.7%
Properties	18	36	5.00	4.86	2	2	0	0.0%	10	10	0	0.0%
Technology	21	33	4.69	4.76	3	3	0	0.0%	5	5	0	0.0%
Trading	22	43	5.30	5.05	3	3	0	0.0%	10	10	0	0.0%
Utilities and Transportation	18	36	4.79	4.74	3	3	0	0.0%	5	5	0	0.0%
<b>TOTAL</b>	<b>269</b>	<b>482</b>	<b>5.39</b>	<b>5.44</b>	<b>1</b>	<b>1</b>	<b>0</b>	<b>0.0%</b>	<b>30</b>	<b>30</b>	<b>0</b>	<b>0.0%</b>

Prior research (Carlin & Finch, 2010) on Australian companies has concluded that disclosures in relation to the key assumptions used to determine the recoverable amount of CGUs have exhibited a range of deficiencies including: first, insufficiently explicit disclosure of discount rates applied in the process of CGU recoverable amount estimation; second, a propensity to define and use one whole of enterprise discount rate rather than individual risk adjusted discount rates appropriate to each CGU; third, evidence of the application of apparently unusually low discount rates on the part of some reporting entities; and fourth, the assumption of apparently unusually high growth rates in cash flow models used as a basis for CGU recoverable amount estimation. Tables 5.8 through 5.13 provided evidence consistent with the above. Although there was a little improvement in growth rate and forecast period disclosure in 2007, the lack of refined detail presented by most of the companies in the sample does not satisfy the requirements defined in FRS 136, and results in the clouding of a vital window into the impairment testing process.

## **5.4 Conclusion**

The requirement that FRS 136 be adopted in Malaysia represented a substantial break from the past in which there had been no mandatory standard framework for goodwill accounting and reporting. The pressure on reporting entities and auditors to respond effectively was exacerbated in the case of Malaysia as a consequence of its inherent complexity, and the degree to which the exercise of judgment and discretion are necessary elements of the Standard's operating machinery. This research examined the disclosure practices of companies listed on the Bursa Malaysia. It focused specifically on the

compliance levels of audited consolidated financial accounts and assessed the quality of disclosures provided in accordance with the Standard.

The results of the research suggest that the potential for high transparency is not translating into actual improvements in transparency in practice. Evidence was provided of systematic non-compliance with the disclosure requirements of the IFRS goodwill impairment testing regime by large listed Malaysian companies, with the rates of clear non-compliance with the edicts of FRS 136 surprisingly high. In 2006, 56.7% of companies and in 2007 54.3% of companies failed to produce disclosures permitting reconciliation between their balance sheet goodwill and amounts allocated to CGUs (as evident in Table 5.4). This is contrary to the requirements of FRS 136 and represents a technical breach. Failure to provide details in relation to CGUs creates fundamental difficulties for financial statement users wishing to undertake independent evaluation of the robustness of valuations ascribed to goodwill by reporting entities.

As illustrated in Tables 5.5 and 5.6, there was a tendency to define fewer rather than greater numbers of CGUs for the purposes of impairment testing. Companies appeared to define fewer CGUs in 2007 (29.6%) than they had in 2006 (27.6%), an observation consistent with the growth in the number of companies that were seen to define fewer CGUs than segments. By defining too few CGUs, the risk that impairment losses, which should be recognised in a given period, are not recognised in that period arises. CGU aggregation is a device used by reporting entities to manage the risk and timing of goodwill impairment losses. The consequences of this type of activity could extend to overstatements of earnings and net assets, understatements of leverage and reduced reporting transparency.



Tables 5.8 through 5.13 provided evidence that companies' disclosures in relation to the key assumptions used to determine the recoverable amount of CGU exhibited a range of deficiencies. More than 40% of companies in both years failed to provide any information relating to discount rates, growth rates and forecast periods employed for the purposes of goodwill impairment testing, thus preventing financial professionals from meaningfully quantifying the key assumptions used as part of cash flow projections. This is an extremely basic requirement of FRS 136, yet one which a surprising number of large, well resourced companies failed to fulfill, or to be brought into check on this matter by their auditors or other stakeholders. It was also found that some reporting entities provided an application of unusually low discount rates and unusually high growth rates in cash flow models used as a basis for CGU recoverable amount estimation, with the result that CGU asset portfolio recoverable values will have been overestimated and potential goodwill impairment losses deferred or avoided. This in turn prevents the financial statement user from being able to independently evaluate the extent to which values assigned to assets such as goodwill, diminishes the capacity to develop detailed reporting entity impairment risk profiles and reduces the quality of disclosures made pursuant to FRS 136.

It is not the focus of this research to attempt to explain why there is a high rate of non-compliance and why disclosure quality varies so measurably. The results of this research stand alone and serve as a reminder that despite the existence of complicated reporting rules, auditing frameworks and the constant scrutiny of capital markets, it is as well not to take the existence of reporting quality and consistency for granted. The next chapter further examines the central material factor impacting valuation model – discount rate – by constructing a framework to assess the use of discount rates in IFRS goodwill impairment testing by large listed Malaysian companies.

## **CHAPTER 6: AN ASSESSMENT OF THE USE OF DISCOUNT RATES IN IFRS GOODWILL IMPAIRMENT TESTING**

### **6.1 Introduction**

The previous chapters focused on the disclosure requirements pursuant to FRS 136, examined the levels of compliance and assessed the quality of disclosures provided in accordance with the new accounting Standard. This chapter examines further the use of discount rate in IFRS goodwill impairment testing by large Malaysian companies in the two years of transition to the new Standard. The independent risk adjusted estimates of company discount rates were calculated for a sample of large Malaysian listed companies, and an analysis of variances between these rates and those adopted by sample companies was undertaken to ascertain evidence of potential opportunism in discount rate selection.

The valuation of goodwill under FRS 136 reflects the underlying economic and business conditions as the reporting is based on current events that affect the business (Moehrle & Reynolds-Moehrle, 2001). This should provide users of financial statements with a better understanding of the expectations and changes in the assets over time, therefore improving their ability to assess future growth and future earnings (Jerman & Manzin, 2008). Yet the valuation of goodwill impairment is not easy and indeed, impairment testing has been categorised as one of the five most difficult challenges arising from the transition to IFRS (Hoogendoorn, 2006). This is due to the determination of impairment of goodwill which requires significant judgment and estimates and leaves ample room for management interpretation, judgment and bias (Herz *et al.*, 2001).

Judgment and estimation pertains to the identification of CGUs, the assessment of the recoverable amount of the unit, the selection of appropriate market value benchmarks and the selection of key valuation model input parameters including growth rates and risk adjusted discount rates (Lonergan, 2007). The assumptions adopted in each of these factors have the ability to materially impact the outcome of impairment assessment exercises undertaken by reporting entities, especially when using VIU in estimating the recoverable amount of CGUs.

The basis for developing the recoverable amount estimates relies heavily on discounted cash flow modelling, and some of the practical difficulties faced by financial preparers includes estimating future cash flows and arriving at an appropriate discount rate for those cash flows. Consistent and materially influential assumptions are being used to estimate cash flows and the selection of an appropriate discount rate in order to transform forecasts of future cash flows into their present value equivalents (Carlin & Finch, 2009). Projections of cash flows should be consistent with the discount rate assumption employed for the purpose of testing for asset impairment<sup>135</sup> as present value estimates can be highly sensitive even to small variations in applied discount rates.

Discount rate selection represents a centrally material factor impacting valuation models. Given the strong reliance on discounted cash flow modelling as a basis for determining an asset's recoverable amount, the judgment exercised by reporting entities regarding rate selection is important in influencing the outcomes of the impairment testing process conducted under IFRS. The discretion surrounding rate selection could be used

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<sup>135</sup> Cash flows are typically modelled to perpetuity.

opportunistically to avoid impairment losses at the detriment of transparency, comparability and decision usefulness.

Thus, the second research area focuses on the use of discount rates in IFRS goodwill impairment testing. The discount rates disclosed by a sample of large Malaysian companies in the two years of transition to IFRS are compared with independently generated discount rates, to provide evidence relating to the potential for and the extent of opportunistic exercise of discretion by large Malaysian reporting entities undertaking goodwill impairment testing pursuant to the IFRS framework. As one of a limited number of empirical researches into the effect of the IFRS goodwill impairment testing regime in practice in Malaysia, this research provides new empirical insights into the operation of the IFRS regime, in particular, the key dimension of discount rate selection by reporting entities.

Section 6.2 contains an overview of the technical context of the research. Section 6.3 provides details of the data drawn upon for the purposes of this research, and the method employed. Section 6.4 contains a discussion of the key results, and Section 6.5 provides a summary of the findings and a conclusion to the chapter.

## **6.2 Technical Background**

The new IFRS treatment of goodwill requires reporting entities to test at least annually for impairment, and goodwill must be written down to the extent of any impairment and the impairment loss recognised in the calculation of profit. The purpose of introducing a new standard of impairment testing was to improve the transparency of accounting for goodwill, and as such, goodwill was evaluated through fair value measurement that reflected

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economic reality (Glazer, 2002). The new Standard of goodwill impairment provides a clearer picture of goodwill to financial statement users as goodwill is tested at current levels and is a better reflection of investment, offering more useful information on intangible assets to investors and ease in company analysis. Thus, investors will be provided with greater transparency regarding the economic value of goodwill and the amount and timing of its impact on earnings (Harper, 2001; Conigliaro & Rudman, 2002).

However, the valuation of goodwill impairment is not easy, with impairment testing relying on fair value estimates, requiring explicit estimates of fair values subsequent to initial acquisition and a thorough knowledge of asset valuation method. As a consequence, there is increased uncertainty and a lessening of transparency, as the new reporting regime will rely on increased professional judgment by preparers and auditors (Seetharaman *et al.*, 2006).

Whether goodwill survives for any length of time depends on whether and to what extent financial statement preparers judge its value to have been impaired in any given reporting period. Therefore, an important element of the IFRS framework is the prescription of a methodological basis upon which judgments in relation to asset value impairment may be founded. According to FRS 136, this process of cash flow modelling and value appraisal takes place not at the whole of enterprise level, but rather, at the level of a subset of a company's total activity base or CGU.

Assets associated with CGUs have known accounting book values; thus the book value of a CGU represents the sum of the book values of the individual assets attributed to a particular CGU. In the impairment testing process, estimates of the recoverable amount of CGUs are compared with known CGU book values. Value impairment occurs when the

estimated CGU recoverable amount is lower than the CGU book value. CGU book values are then required to be written down to the recoverable amount, with losses attributed first to goodwill and then only upon exhaustion of goodwill to other CGU assets.

The IFRS impairment testing framework prescribes two methodologies for estimating the CGU recoverable amount. These are FVLCS and VIU. The determination of the fair value of an asset in individual situations is not always straightforward, especially post-acquisition (Lhaopadchan, 2010). Measurement error in fair value estimates can exist, as many assumptions adopted in the various calculations required become critical and thus, affect the relevance and reliability of financial statements (Lander & Reinstein, 2003; Wines *et al.*, 2007). While, in theory, either may be adopted, a range of considerations including the absence, in many cases, of suitable benchmark data have resulted in a substantially higher frequency application of VIU (Carlin & Finch, 2010).

The second alternative requires estimation of the VIU, and the determination of the CGU. VIU requires the construction of discounted cash flow models, a fact that necessitates a view on the part of reporting entities and their auditors on factors such as timing of expected cash flows, growth trajectories and risk. FRS 136 contains detailed disclosure provisions designed to render transparent the nature of key inputs and assumptions drawn upon in the construction of discounted cash flow models used to generate estimates of the CGU recoverable amount.<sup>136</sup>

The importance of the discount rate selection decision is stated clearly in FRS 136. The discount rates employed for the purposes of transforming CGU future cash flow estimates to their present values are required to relate to the risk characteristics of each

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<sup>136</sup> The provisions have been discussed in detail in Chapter 3.

CHAPTER SIX: AN ASSESSMENT OF THE USE OF DISCOUNT RATES IN IFRS GOODWILL IMPAIRMENT TESTING

CGU. This requirement is consistent with the assumption included in Paragraph A19 of FRS 136 that the discount rate is independent of the entity's capital structure and the way the entity financed the purchase of the asset. This creates the expectation that companies assigning goodwill to multiple CGUs should also adopt multiple appropriate risk adjusted discount rates for the purposes of recoverable amount estimation.

Paragraph A.17 of FRS 136 provides guidance on the estimation of discount rates, and states that as a starting point in making an estimation, an entity might take into account, first, the entity's weighted average cost of capital which is determined using techniques such as the CAPM; second, the entity's incremental borrowing rate; and third, other market borrowing rates. A study by Husmann and Schmidt (2008) analysed these starting points and provided guidance for practitioners as to which of the three should be used. The result shows that the only suitable starting point for entities reporting under IFRS is the weighted average cost of capital and this recommended starting point is in accordance with 'state of the art' finance theory. The other alternative starting points are not sufficiently clear and give rise to substantial measurement errors, making earnings management impossible.

The CAPM was used as a basis for developing independent estimates of discount rates for the purposes of facilitating comparisons with company discount rate disclosures. The use of CAPM is the preferred method to estimate an appropriate discount rate as it represents the current market assessment and the risks specific to the CGU asset. CAPM is one of the cornerstones of modern finance and is widely used both by practitioners and theoreticians, since it is a manageable and attractive way of thinking about risk and required return on a risky investment (Hens & Loffler, 1996). Furthermore, as a tool for valuing and

selecting projects, its use is considered theoretically correct, once the CAPM assumptions are met in the relevant security market (Brealey & Myers, 2000).

Chapter 5 provided evidence of systematic non-compliance with the disclosure requirements of the IFRS goodwill impairment testing regime on the part of large listed Malaysian companies. The rates of non-compliance with the edicts of FRS 136 were very high and the result is contrary to the requirements of FRS 136, representing a technical breach. Companies in the research sample also had a tendency to define fewer rather than greater numbers of CGUs for the purposes of impairment testing, with the result that the recognition of impairment losses may be inappropriately delayed<sup>137</sup> and are insufficiently transparent in their future growth rate projection disclosures.

Disclosures pertaining to discount rates, key factors wielding substantial influence over the outcome of any present value calculation, also tended not to conform to the requirements of FRS 136. Companies failed to provide any information relating to discount rates employed for the purposes of goodwill impairment testing, despite an explicit requirement to do so.<sup>138</sup> There is evidence that some reporting entities applied unusually low discount rates in cash flow models used as a basis for CGU recoverable amount estimation, with the result that CGU asset portfolio recoverable values were overestimated and potential goodwill impairment losses deferred or avoided. The empirical evidence also demonstrates that a substantial number of companies disclosed the application of a single discount rate as an element of the estimation of the recoverable amount of all CGUs. This appears to conflict with the clear expectation of FRS 136 that discount rates employed in

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<sup>137</sup> For a discussion of this issue, known as the CGU aggregation problem, see Chapter 4.

<sup>138</sup> Paragraph 130 (g) of FRS 136.



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recoverable amount simulations should reflect the business risk inherent in each CGU. Chapter 5 addressed this phenomenon from the perspective of yielding insights into compliance levels and the assessment of disclosure quality of listed reporting entities in Malaysia.

In order to take the analysis further, the focus of the second research area is the level of the discount rates selected by reporting entities as an element of their impairment testing regime and how these rates may vary from independent estimates. The opportunity to undertake this line of enquiry arises principally because of the high frequency with which companies defined only one discount rate for the purposes of impairment testing. This in turn opens the way to comparative analysis pursuant to which the single point discount rates defined by reporting entities may be compared with independently generated single point 'whole of firm' discount rates.

In circumstances where companies defined multiple CGUs and assigned unique risk adjusted discount rates to each, the execution of this form of comparative analysis is rendered difficult because of the greater degree of challenge in independently estimating discount rates applicable to parts, rather than the whole, of business enterprises. Estimates of company-specific betas are commonly available or can be independently calculated based on observed returns on firms' equity securities. However, direct risk estimates for sub-elements of enterprises are not generally available. Though there are techniques to proxy for these, the consequence of this approach is the introduction of unknown measurement bias, with direct consequences for the potential robustness of results.

Thus the second research area focuses solely on discount rates set by a sample of large Malaysian companies in the two years of IFRS transition, which applied a single

discount rate only in the process of undertaking mandated goodwill impairment testing. If opportunism is not a substantial feature of the approach taken by reporting entities as they approach the requirements of the FRS 136 impairment testing regime, a strong coincidence between discount rates defined by reporting entities and those capable of being independently estimated as representing the risk profile of those entities should be apparent. Alternatively, substantial deviations between disclosed discount rates and independently estimated risk adjusted discount rates may provide evidence consistent with the existence of opportunism.<sup>139</sup>

Section 6.3 discusses the details of sample selection and the method employed in comparing the 'whole-of-firm' discount rates disclosed by the sample companies with independently generated central point 'whole-of-firm' discount rates.

### **6.3 Method**

This research examines the central material factor impacting valuation model – discount rate. The discount rates disclosed by large Malaysian companies are compared with independently generated discount rates and analysed using the CAPM and Goodwill Intensity. As this research focuses on examining the single 'whole of firm' discount rates disclosed by sample companies listed on the Bursa Malaysia, 66 companies in 2006 and 177 companies in 2007 from this initial sample ultimately satisfied the selection criteria. All of these companies employed the VIU approach to goodwill impairment testing and defined a

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<sup>139</sup> Opportunism may manifest in the selection of inappropriately low or inappropriately high discount rates. In the former case, the objective may be to defer or avoid earnings, reducing impairment charges. In the latter case, firms may wish to dampen earnings or take 'big baths'.

single 'whole of firm' discount rate. The details of the filtering process are reported in Table 6.1.

**Table 6.1 – Description of Sample Companies**

	Number of observations	
	2006	2007
Initial Sample	275	490
(-) No disclosure on the method used	-127	-168
(-) Used FVLCS method	-6	-8
(-) Used the mixed method	-9	-15
(-) Defined multiple discount rates	-20	-25
(-) Defined range discount rates	-10	-17
(-) No disclosure on the discount rate	-37	-80
<b>Final number of companies for analysis</b>	<b>66</b>	<b>177</b>

## 6.4 Results and Discussion

Though the focus of the second research area is the variation between independently estimated and observed disclosed discount rates employed for the purposes of goodwill impairment testing, data gathered for the purpose of this analysis reinforced the findings of the first research area regarding compliance levels and disclosure quality. For example, it was a necessary precondition for inclusion in the research sample employed for the purposes of this research that companies disclosed only one discount rate. Yet FRS 136

stipulates clearly<sup>147</sup> that discount rates employed for the purposes of impairment testing should relate to the underlying risk characteristics of each defined CGU.

Of course, in some instances, goodwill will be associated with one CGU only, meaning that for all practical purposes, only one defined discount rate will be required for the purposes of satisfying the requirements of the Standard. However, Table 6.2 shows that 16 companies (24%) in 2006 and 56 companies (32%) in 2007 failed to provide details of the manner in which they had allocated goodwill between CGUs for the purpose of impairment testing. These companies were assessed not to have complied with the requirements of FRS 136 and this is contrary to the requirements of Paragraph 80 of FRS 136, which states that: 'For the purpose of impairment testing, goodwill shall be allocated to each of the acquirer's cash-generating units, or groups of cash generating units, that are expected to benefit from the synergies of the combination, irrespective of whether other assets or liabilities of the acquiree are assigned to those units or groups of units'.

More than representing a mere technical breach, failure to provide details in relation to CGUs creates fundamental difficulties for financial statement users wishing to undertake independent evaluation of the robustness of valuations ascribed to goodwill by reporting entities. An obvious problem which arises when this information is not provided is the lack of capacity on the part of the financial statement users to understand how goodwill is distributed across a business, where it is concentrated and what types of underlying business activities it is principally associated with. This results in a diminished capacity on

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<sup>147</sup> FRS 136 requires that the discount rate be asset specific with respect to risk, and independent of financing considerations (Paragraph A19 of FRS 136).

the part of financial statement users to develop detailed reporting entity impairment risk profiles.

Further, data in Table 6.2 indicates that only 23 companies (35%) in 2006 and 66 companies (37%) in 2007 disclosed one CGU. Examined on an industry-by-industry basis, it is clear that companies disclosing one CGU are not evenly distributed. For example, the number of companies defining one CGU in the Consumer Products, Food and Beverage, and Machinery and Equipment<sup>148</sup> industry segments was far more likely to increase from 2006 to 2007, whereas the number of companies defining one CGU in the Automotive and Chemicals, Construction, Financials, Miscellaneous, Technology and Utilities, and Transportation industries,<sup>149</sup> was more likely to decrease in 2007 compared to 2006. Seventeen companies (26%) in 2006 and 33 companies (19%) in 2007 disclosed two CGUs for the purposes of impairment testing. Then, in approximately 16% of companies in 2006 and 12% of companies in 2007, of observed cases disclosed three to five CGUs and in 2007, 1% of the companies disclosed more than five CGUs.

As the number of defined CGUs grows, it becomes increasingly difficult to accept the validity of the risk homogeneity proposition implicit in the determination that a single discount rate should be employed for the purposes of impairment testing. There is the possibility that even where multiple CGUs are defined, their risk characteristics are similar,

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148 Consumer Products companies defining one CGU increased from three (13%) in 2006 to 10 (15%) in 2007. Food & Beverage sector firms defining one CGU increased from one (4%) in 2006 to four (6%) in 2007. Companies in the Machinery and Equipment sector defining one CGU increased from one (4%) in 2006 to three (5%) in 2007.

149 Automotive and Chemicals companies defining one CGU decreased from two (9%) companies in 2006 to two (3%) in 2007. Companies in the Construction sector defining one CGU decreased from five (22%) in 2006 to 10 (15%) in 2007. Financial sector companies defining one CGU decreased from two (9%) in 2006 to four (6%) in 2007. Companies in the Miscellaneous sector defining one CGU decreased from four (17%) in 2006 to seven (11%) in 2007. Technology companies defining one CGU decreased from two (9%) in 2006 to two (3%) in 2007. Finally, companies in the Utilities and Transportation sector defining one CGU decreased from three (13%) in 2006 to five (8%) in 2007.

in effect justifying the application of a blanket discount rate for the purposes of impairment testing. This does not reduce the appropriateness of the research method employed in this research. Thus, the data in Table 6.2 of itself provides evidence of the possibility that inappropriate discount rates are being employed in the impairment testing processes conducted by large listed companies.<sup>150</sup>

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150 Existing research has documented the inappropriate use of blanket whole of firm discount rates even where there is clear evidence of substantial intra firm risk variation (see for example Bierman, 1993).

Table 6.2 – Number of Defined CGUs by Industry Sector

Sector	No. of companies		1 CGU		2 CGUs		3 CGUs		4 CGUs		5 CGUs		>5 CGUs		No disclosure	
	2006	2007	2006	2007	2006	2007	2006	2007	2006	2007	2006	2007	2006	2007	2006	2007
Automotive and Chemicals	3	7	2	2			1	1								4
Construction	7	22	5	10	1	2		4							1	6
Consumer Products	6	17	3	10	1	1		1							2	5
Electrical and Electronic	2	8		4			2	1								3
Financials	4	10	2	4		2	1	1					1		1	2
Food and Beverage	3	10	1	4	1	2					1	1				3
Industrial Products	5	19		6	2	4		1							3	8
Machinery and Equipment	4	8	1	3	1		1	2							1	3
Miscellaneous	12	16	4	7	3	3	3	3							2	3
Plantation	4	9		3	2	3	1					1			1	2
Properties	1	10		3	1	5		1								1
Technology	6	12	2	2	2	5									2	5
Trading	4	11		3	1	1		2		1					3	4
Utilities and Transportation	5	18	3	5	2	5		1								7
<b>TOTAL</b>	<b>66</b>	<b>177</b>	<b>23</b> <b>(35%)</b>	<b>66</b> <b>(37%)</b>	<b>17</b> <b>(26%)</b>	<b>33</b> <b>(19%)</b>	<b>9</b> <b>(14%)</b>	<b>18</b> <b>(10%)</b>	<b>0</b> <b>(0%)</b>	<b>1</b> <b>(1%)</b>	<b>1</b> <b>(2%)</b>	<b>2</b> <b>(1%)</b>	<b>0</b> <b>(0%)</b>	<b>1</b> <b>(1%)</b>	<b>16</b> <b>(24%)</b>	<b>56</b> <b>(32%)</b>

Where goodwill is not material, the application of inappropriate discount rates is unlikely of itself to substantially reduce the decision usefulness of information contained in financial reports. Yet for companies included in the final research sample, it is evident that goodwill was material in general, particularly when benchmarked against reported before-tax earnings. Goodwill intensity<sup>151</sup> represents a measure of the sensitivity of companies to changes in goodwill valuation and in particular of earnings streams to potential impairment charges.

Across the final sample, Table 6.3 reports that mean goodwill intensity in 2006 was 2.3 with a minimum value of -0.9, a maximum value of 27.0, and a standard deviation of 5.3; in 2007, mean goodwill intensity was 8.7 with a minimum value of -38.6, a maximum value of 513.8, and a standard deviation of 71.4. Thus, suggesting that even relatively small proportionate impairment of goodwill could generate disproportionate impacts on earnings.

Examined on an industry-by-industry basis, it is clear that mean goodwill intensity is not evenly distributed. Mean goodwill intensity tended to increase for companies in Financials (0.6 in 2006 to 5.0 in 2007), Food and Beverage (0.7 in 2006 to 80.6 in 2007), Miscellaneous (4.5 in 2006 to 6.1 in 2007), and Utilities and Transportation (0.2 in 2006 to 26.9 in 2007). On the other hand, mean goodwill intensity was likely to decrease for companies in Automotive and Chemicals (2.4 in 2006 to 0.4 in 2007), Electrical and Electronic (14.1 in 2006 to 0.9 in 2007), Industrial Products (3.5 in 2006 to 1.9 in 2007), Machinery and Equipment (0.0 in 2006 to -0.6 in 2007), Plantation (0.6 in 2006 to 0.4 in 2007), Properties (3 in 2006 to 1.1 in 2007), Technology (0.7 in 2006 to -0.1 in 2007) and Trading (2.0 in 2006 to 0.9 in 2007).

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<sup>151</sup> The calculation of which is described at Equation 4.



It is apparent that for many companies included in the final research sample, the requirement to recognise an impairment charge against goodwill would result in a material impact on reported earnings. Consequently, in a bid to defend against the prospect of such an unwelcome state of affairs, it is possible that in modelling the CGU recoverable amount, some reporting entities may have used lower than appropriate discount rates. The impact of the application of such a stratagem is to increase the likelihood that estimates of the CGU recoverable amount exceeds CGU book value and to increase the level of 'headroom' between CGU book value and recoverable amount estimates. Opportunism may potentially also manifest in the opposite direction, via the application of excessive discount rates. However, there is little available empirical evidence to confirm the existence of this form of phenomenon in companies undertaking impairment testing pursuant to IFRS.

Table 6.3 – Company Goodwill Intensity Analysis

Sector	No. of Companies		Mean		Goodwill Intensity (Goodwill / NPBT)					
					Minimum		Maximum		Standard Deviation	
	2006	2007	2006	2007	2006	2007	2006	2007	2006	2007
Automotive and Chemicals	3	7	2.4	0.4	0.2	-1.9	6.0	1.9	3.2	0.4
Construction	7	22	2.8	1.5	-0.3	-2.6	8.0	17.2	3.5	1.5
Consumer Products	6	17	0.5	0.5	0.0	-1.0	1.2	5.1	0.5	1.3
Electrical and Electronic	2	8	14.1	0.9	1.1	-9.1	27.0	7.4	18.3	5.1
Financials	4	10	0.6	5.0	0.2	0.0	1.3	27.2	0.5	9.8
Food and Beverage	3	10	0.7	80.6	-0.9	-1.5	1.9	798.5	1.4	252.3
Industrial Products	5	19	3.5	1.9	-0.3	-0.8	17.7	21.8	7.9	5.1
Machinery and Equipment	4	8	0.0	-0.6	-0.7	-5.7	0.8	0.6	0.6	2.1
Miscellaneous	12	16	4.5	6.1	0.1	0.0	25.2	66.1	7.8	16.4
Plantation	4	9	0.6	0.4	0.1	-2.2	1.5	1.7	0.7	1.2
Properties	1	10	3.0	1.1	3.0	-2.8	3.0	4.9	0.0	2.3
Technology	6	12	0.7	-0.1	0.3	-29.0	1.4	10.4	0.5	9.6
Trading	4	11	2.0	0.9	0.0	0.0	7.2	1.6	3.5	1.6
Utilities and Transportation	5	18	0.2	26.9	0.0	-38.6	0.6	513.8	0.3	121.9
<b>TOTAL</b>	<b>66</b>	<b>177</b>	<b>2.3</b>	<b>8.7</b>	<b>-0.9</b>	<b>-38.6</b>	<b>27.0</b>	<b>513.8</b>	<b>5.3</b>	<b>71.4</b>

Any technique for estimating discount rates is subject to potential error, thus, interpretation of variances between independently estimated and observed actual discount rates requires a degree of care. Consequently, any observed discount rates that fell within a band of plus or minus 150 basis points of independently estimated discount rates were regarded as falling within a reasonable expected range, and thus not consistent with the notion of bias in the selection of discount rates.

By contrast, variances between expected and observed discount rates of a magnitude of 150bps cannot be as readily explained as the product of estimation error, and may be consistent with the existence of systemic bias on the part of listed reporting entities in the selection of discount rates for the purposes of impairment testing (Carlin & Finch, 2009). Determining the appropriate 'tolerance threshold' is challenging, particularly bearing in mind concerns which have been raised in the literature about high standard error terms in CAPM-based estimates of the cost of equity capital (Fama & French, 1997). However, there is substantial evidence that the dominant approach used by listed companies to develop their cost of capital estimates is CAPM (Graham & Harvey, 2001; Bancel & Mittoo, 2003).

Thus in this research, the application of CAPM as a basis for cost of capital estimation likely corresponds tightly to the approaches used internally by sample companies for this purpose, justifying the use of a tighter rather than a narrower tolerance threshold. Alternative approaches could have anchored individual company tolerances to beta standard errors. Table 6.4 contains details of variances categorised by the magnitude and direction of the differential between estimated and observed discount rates across the final sample.

For each industry sector, the data shows the number and proportion of companies that fell into each variance category. For example, three companies in 2006 and seven companies in 2007 from the Automotive and Chemicals sector were included in the final research sample. Of these, three companies in 2006 and three companies in 2007 reported that they had adopted discount rates that fell more than 250bps below the independent estimate of an appropriate discount rate. A further two companies in 2007 disclosed the use of discount rates which fell in the range between 150bps and 250bps below the estimate of those companies' risk adjusted discount rates. An additional company in 2007 disclosed the use of discount rates that fell in the range of 150bps above and below our estimate of those firms' risk adjusted discount rates, while the final company in 2007 disclosed the use of discount rates that lay in excess of 250 bps above the estimate.

Table 6.4 shows that only three companies in 2006 and 19 companies in 2007 included in the final research sample disclosed the use of discount rates that fell in the range of 150 bps around the estimate. The proportion of companies whose discount rates fell into this category increased from 4.5% in 2006 to 10.7% in 2007. On an industry basis, in three of the 14 industry sectors in 2006 and nine of the 14 industry sectors in 2007, reported goodwill had been subject to impairment testing using discount rates within the range of 150bps around expectations, a considerable proportionate change. Still, it is clear that a progressively smaller number of sample companies employed discount rates which would appear to have been providing meaningful information in the selection of discount rates in the impairment testing process to group users in making investment decisions.

In those instances where observed discount rates lay more than 150 bps from the estimated value, the dominant pattern was for observed discount rates to be lower rather

than higher than the estimated value. This was the case for 61 companies (92.4%) in 2006 and 128 companies (72.4%) in 2007, with 59 companies (89.4%) in 2006 and 107 companies (60.5%) in 2007 in which observed discount rates were in excess of 250 bps lower than the independent risk adjusted estimate. On an industry sector basis, in 14 industry sectors in both years, a distinct majority of reported goodwill had been subjected to impairment testing using discount rates more than 250bps below expectation. Thus, the data provides evidence of the use of aggressively low discount rates, with the result that CGU asset portfolio recoverable values will have been overestimated and potential goodwill impairment losses deferred or avoided. The consequences of this type of activity could extend to overstatements of earnings and net assets, understatements of leverage and reduced reporting transparency.

Comparatively few companies, a total of only 3% in 2006 and 16.9% in 2007, disclosed discount rates that lay substantially above the discount rate estimates. Examined on an industry basis, the number of industries disclosing discount rates that fell above expectation increased from two out of 14 in 2006 to all 14 in 2007. Companies that fell into this category used higher pre-tax discount rates and disclosed no discount rates that could be considered 'incongruously low'. However, opportunism may potentially lead to results in the opposite direction, via the application of excessive discount rates and thus, fail to provide any meaningful information on the goodwill impairment testing process. Again, this raises questions regarding the technical reliability and robustness of the impairment testing process undertaken by the companies in the sample.

A number of factors may explain the above tendency in the data. One possibility is the existence of a systemic bias in the manner in which the independent discount rate

estimates employed for the purposes of the research were generated. If aspects of the method used to generate these discount rate estimates tend on average to inflate discount rate estimates, the resulting pattern of variances between estimated and observed discount rates would likely be similar to those set out in Table 6.4.

However, a combination of methodological factors mitigates against this possibility. First, the data provider<sup>152</sup> from whom betas were sourced for the purposes of supporting discount rate estimates curtails published betas at an upper value of 2.0 in a bid to reduce outliers. Second, the risk-free rate employed (4.31% in 2006 and 3.61% in 2007) falls at the lower end of the generally accepted range. Third, the market risk premium employed (7.47% in 2006 and 7.35% in 2007) also falls at the low end of the generally accepted range of values assigned to this variable discount rate modelling. Finally, in transforming levered betas to unlevered betas using the Hamada process,<sup>153</sup> a process for estimating leverage likely to produce higher rather than lower values was employed. This in turn results in lower unlevered betas being inferred, with the consequence of reduced estimated risk adjusted discount rates.

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152 Worldscope database by Thomson Financial.

153 As described in Section 6.3, Equation 1.

**Table 6.4 - Analysis of Discount Rate Variance by Sector**

Sector	No. of Companies		>250 bp below Expectation		>150 bp <250 bp below expectation		Within expected range (+/- 150 bp)		>150 bp <250 bp above expectation		>250 bp above expectation	
	2006	2007	2006	2007	2006	2007	2006	2007	2006	2007	2006	2007
Automotive and Chemicals	3	7	3 (100.0%)	3 (42.9%)		2 (28.6%)		1 (14.3%)				1 (14.3%)
Construction	7	22	5 (71.4%)	12 (54.5%)	1 (14.3%)	6 (27.3%)	1 (14.3%)			1 (4.5%)		3 (13.6%)
Consumer Products	6	17	5 (83.3%)	7 (41.2%)		2 (11.8%)		4 (23.5%)	1 (16.7%)			4 (23.5%)
Electrical and Electronic	2	8	2 (100.0%)	5 (63.0%)						2 (25%)		1 (13.0%)
Financials	4	10	3 (75.0%)	6 (60.0%)	1 (25.0%)							4 (40.0%)
Food and Beverage	3	10	3 (100.0%)	6 (60.0%)		1 (10.0%)		2 (20.0%)				1 (10.0%)
Industrial Products	5	19	5 (100.0%)	12 (63.2%)		4 (21.1%)		2 (10.5%)				1 (5.3%)
Machinery and Equipment	4	8	4 (100.0%)	6 (75.0%)		1 (12.5%)				1 (12.5%)		
Miscellaneous	12	16	10 (83.3%)	9 (56.3%)		3 (18.8%)	1 (8.3%)	2 (12.5%)			1 (8.3%)	2 (12.5%)
Plantation	4	9	4 (100.0%)	8 (88.9%)								1 (11.1%)
Properties	1	10	1 (100.0%)	7 (70.0%)		1 (10.0%)		1 (10.0%)				1 (10.0%)
Technology	6	12	5 (83.3%)	9 (75.0%)			1 (16.7%)	1 (8.3%)				2 (16.7%)
Trading	4	11	4 (100.0%)	7 (63.6%)				3 (27.3%)				1 (9.1%)
Utilities and Transportation	5	18	5 (100.0%)	10 (55.6%)		1 (5.6%)		3 (16.7%)		1 (5.6%)		3 (16.7%)
<b>TOTAL</b>	<b>66</b>	<b>177</b>	<b>59 (89.4%)</b>	<b>107 (60.5%)</b>	<b>2 (3%)</b>	<b>21 (11.9%)</b>	<b>3 (4.5%)</b>	<b>19 (10.7%)</b>	<b>1 (1.5%)</b>	<b>5 (2.8%)</b>	<b>1 (1.5%)</b>	<b>25 (14.1%)</b>

It is defensible to argue that rather than being the product of methodologically induced estimation errors, the contours of the discount rate variance distribution may be explained by other factors, including those consistent with the exercise of discretion and opportunistic behaviour among reporting entities. Bearing this in mind, it is interesting when inspecting the data set out in Table 6.5 to note that whereas the companies included in the final research sample reported goodwill totalling slightly over RM 3.7 million in 2006 and RM 11.3 million in 2007 in value, the value of goodwill reported by companies that disclosed discount rates higher than independently estimated rates totalled only approximately RM 0.3 million (6.9%) in 2006 and RM 2.4 million (21%) in 2007.

By contrast, the ringgit value of goodwill reported by companies whose disclosed discount rates lay between 150 and 250 bps below independently estimated rates totalled approximately RM 0.05 million (1.4%) in 2006 and RM 1 million (10.5%) in 2007, while companies whose disclosed rates lay in excess of 250bps below estimated rates reported almost RM 3.4 million (91.1%) in 2006 and RM 7.6 million (66.9%) in 2007. The summary level data suggests that approximately RM 0.02 million (or 0.5%) in 2006 and RM 0.2 million (or 1.7%) in 2007 of the total sample of company goodwill had been tested for impairment using discount rates which fell within a 150 bps range of an independently estimated risk-adjusted discount rate.

Upon viewing the data on an industry sector basis, in 2007, one<sup>154</sup> of the 14 industry sectors showed that a minimum of 50.3% of goodwill by value had been impairment tested using discount rates in the range of between 150bps and 250bps below expectation.

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154 Utilities and Transportation with a ringgit value of goodwill of RM 0.6 million (50.3%).



Furthermore, all 14 industry sectors in 2006 and nine<sup>155</sup> out of 14 in 2007 had been subject to impairment testing using discount rates more than 250bps below expectation. Apart from reducing the quality of disclosures made pursuant to FRS 136, this result also lowers the capacity of financial statement users to independently evaluate the extent to which values assigned to assets, in particular, goodwill.

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155 These were: Automotive and Chemicals, with a ringgit value of goodwill of RM 0.5 million (96.6%); Construction, with a ringgit value of goodwill of RM 1.5 million (85.4%); Food and Beverage, with a ringgit value of goodwill of RM 1.0 million (89.5%); Industrial Products, with a ringgit value of goodwill of RM 0.3 million (61.9%); Machinery and Equipment, with a ringgit value of goodwill of RM 0.2 million (76.3%); Miscellaneous, with a ringgit value of goodwill of RM 1.5 million (89.3%); Properties, with a ringgit value of goodwill of RM 0.3 million (90.8%); Technology with a ringgit value of goodwill of RM 0.2 million (91.8%); Trading, with a ringgit value of goodwill of RM 0.7 million (96.3%).

Table 6.5 – Industry Sector Ringgit Value of Goodwill by Discount Rate Variance

Sector	No. of Companies		>250 bp below Expectation		>150 bp <250 bp below expectation		Within expected range (+/- 150 bp)		>150 bp <250 bp above expectation		>250 bp above expectation		Total Goodwill (RM million)	
	2006	2007	2006	2007	2006	2007	2006	2007	2006	2007	2006	2007	2006	2007
Automotive and Chemicals	3	7	550 (100%) 136	489 (96.6%) 1492		14 (2.7%)		1 (0.3%)				2 (0.4%)	550	506
Construction	7	22	(92.6%)	(85.4%)	8(5.6%)	231 (13.2%)	3 (1.8%)			15(0.9%)		8 (0.5%)	147	1746
Consumer Products	6	17	445 (99%)	134 (22.6%)		6 (1.0%)		6 (0.9%)	1 (1.0%)			449 (75.5%)	446	595
Electrical and Electronic	2	8	30 (100%) 183	26 (15.7%)						25(14.8%)		116 (69.5%)	30	167
Financials	4	10	(80.4%)	348 (33.4%)	45 (19.6%)							694 (66.6%)	228	1042
Food and Beverage	3	10	78 (100%)	956 (89.5%)		58 (5.4%)		17 (1.6%)				37 (3.4%)	78	1068
Industrial Products	5	19	50 (100%)	251 (61.9%)		74 (18.3%)		77 (19.1%)				3 (0.8%)	50	405
Machinery and Equipment	4	8	52 (100%)	178 (76.3%) 1456		49 (21.0%)				6 (2.7%)			52	233
Miscellaneous	12	16	1586 (86%)	(89.3%)		155 (9.5%)	3 (0.2%)	6 (0.3%)			255 (13.8%)	15 (0.9%)	1844	1632
Plantation	4	9	42 (100%)	459 (32.1%)								972 (67.9%)	42	1431
Properties	1	10	5 (100%)	336 (90.8%)		4 (1.1%)		25 (6.7%)				5 (1.5%)	5	370
Technology	6	12	21 (62.1%)	187 (91.8%)			12 (37.9%)	12 (6%)				4 (2.2%)	33	203
Trading	4	11	163 (100%)	689 (96.3%)				26 (3.6%)				1 (0.1%)	163	716
Utilities and Transportation	5	18	19 (100%)	549 (46.8%)		591 (50.3%)		18 (1.6%)		9 (0.7%)		7 (0.6%)	19	1174
<b>TOTAL</b>	<b>66</b>	<b>177</b>	<b>3360 (91.1%)</b>	<b>7550 (66.9%)</b>	<b>53 (1.4%)</b>	<b>1182 (10.5%)</b>	<b>18 (0.5%)</b>	<b>188 (1.7%)</b>	<b>1 (0.03%)</b>	<b>55 (0.5%)</b>	<b>255 (6.9%)</b>	<b>2313 (20.5%)</b>	<b>3687</b>	<b>11288</b>

An alternative means of stratifying the discount rate variance data is by goodwill intensity, as set out in Table 6.6, below. Yet again a very small proportion of total company goodwill was subjected to impairment testing using discount rates within the expected range, with the value of goodwill at only RM 0.02 million (0.5%) in 2006 and RM 0.2 million (1.7%) in 2007. Further, a proportion of the total sample subjected to impairment testing using discount rates in excess of expectations shows a small increase, with the goodwill amount of RM 0.7 million (18.1%) in 2006 rising to RM 2 million (21%) in 2007. From this data, it appears that higher goodwill intensity companies select above expected discount rates to a better degree than lower goodwill intensity companies.

On the other hand, more than 70% of the value of goodwill allocation subjected to impairment testing fell 150bps below the expected discount rate. RM 0.05 million (1.4%) in 2006 and RM 1 million (10.5%) in 2007 of the goodwill value was subjected to discount rates between 150bps and 250bps below expectation. A significant amount of goodwill was subject to impairment testing using discount rates more than 250 bps below expectation, with RM 3 million (80%) in 2006 and RM 8 million (66.9%) in 2007. From this data, it can be concluded that higher goodwill intensity companies select lower than expected discount rates to a greater degree than lower goodwill intensity companies.

Table 6.6 – Discount Rate Variance and Goodwill Intensity (Value of Goodwill)

Sector	No. of Companies		>250 bp below expectation		>150 bp <250 bp below expectation		Within expected range (+/- 150 bp)		>150 bp <250 bp above expectation		>250 bp above expectation		Total Goodwill (RM million)	
	2006	2007	2006	2007	2006	2007	2006	2007	2006	2007	2006	2007	2006	2007
Goodwill intensity >5	10	17	2014 (100.0%)	1719 (79.2%)		48 (2.2%)		25 (1.1%)				380 (17.5%)	2014	2172
Goodwill intensity >4 and <5		5		18 (13.2%)						2 (1.4%)		116 (85.3%)		136
Goodwill intensity >3 and <4		5		1400 (93.0%)		106 (7.0%)								1506
Goodwill intensity >2 and <3	1	6	5 (100.0%)	31 (9.2%)								310 (90.8%)	5	341
Goodwill intensity >1 and <2	12	20	385 (100.0%)	2,631 (69.0%)		112 (2.9%)		65 (1.7%)				1004 (26.3%)	385	3812
Goodwill intensity >0 and <1	37	101	476 (39.2%)	1308 (60.3%)	53 (4.4%)	243 (11.2%)	19 (1.5%)	87 (4.0%)	412 (33.9%)	29 (1.4%)	255 (21.0%)	502 (23.1%)	1214	2169
Goodwill intensity <0	6	23	69 (100.0%)	444 (38.6%)		673 (58.4%)		10 (0.9%)		23 (2.0%)		2 (0.2%)	69	1152
<b>TOTAL</b>	<b>66</b>	<b>177</b>	<b>2949 (80.0%)</b>	<b>7551 (66.9%)</b>	<b>53 (1.4%)</b>	<b>1182 (10.5%)</b>	<b>19 (0.5%)</b>	<b>187 (1.7%)</b>	<b>412 (11.2%)</b>	<b>54 (0.5%)</b>	<b>255 (6.9%)</b>	<b>2314 (20.5%)</b>	<b>3687</b>	<b>11 288</b>

The results of this research suggest that there is a bias among Malaysian companies towards the application of lower than expected discount rates. This had a material impact on financial statements and can be interpreted as evidence of the opportunistic exercise of discretion to avoid unwanted impairment losses. Furthermore, the results provide insufficient information for a financial statement user to meaningfully quantify the discount rate used as part of the impairment testing process, raising doubts as to the efficacy of the IFRS impairment testing process in practice.

The result can also be expressed as the manifestation of a general aversion towards the forced recognition of impairment losses, a result consistent with the findings of prior literature on the subject of the value relevance of goodwill write-offs. The literature concerning the information value of annual goodwill amortisation charges generally suggests limited value relevance (Jennings *et al.*, 2001; Moehrle *et al.*, 2001). Conversely, several studies have suggested a material negative adverse response on the part of capital markets to goodwill write-offs (e.g. Hirschey & Richardson, 2002; Chen *et al.*, 2004). If capital market responses to impairment losses manifest on a *pari passu* basis, as suggested by Li & Meeks (2006), the propensity to adopt measures designed to minimise the likelihood of forced impairment losses may be independent of the materiality of company goodwill balances.

## 6.5 Conclusion

Discount rate selection represents a centrally material factor impacting valuation models. The judgment exercised by reporting entities in discount rate selection is important in influencing the result of the impairment testing process conducted under IFRS. This is due to a strong dependence on discounted cash flow modelling as a basis for determining an asset's recoverable amount. This second area of research focused on the use of discount rates in the IFRS goodwill impairment testing by comparing the discount rates disclosed by a sample of large Malaysian companies with independently generated discount rates in the first two years of IFRS reporting.

This research provides evidence consistent with opportunism on the part of financial statement preparers, by demonstrating the existence of variances between independently generated discount rates and those disclosed by companies. The dominant pattern was for observed discount rates to be lower rather than higher than the estimated value, with 92.4% of the companies in 2006 and 72.4% of those in 2007 in excess of 150 bps lower than the independent risk-adjusted estimate (as evident in Table 6.4). Thus, the data provided evidence of the use of aggressively low discount rates, with the result that CGU asset portfolio recoverable values will have been overestimated and potential goodwill impairment losses deferred or avoided. The consequences of this type of activity could extend to overstatements of earnings and net assets, understatements of leverage and reduced reporting transparency. On the other hand, only 4.5% of companies in 2006 and 10.7% of companies in 2007 (as evident in Table 6.4) disclosed the use of discount rates that fell within the expected range, and it is clear that only a small number of sample companies

CHAPTER SIX: AN ASSESSMENT OF THE USE OF DISCOUNT RATES IN IFRS GOODWILL IMPAIRMENT TESTING

employed discount rates that would provide meaningful information for group users in making investment decisions.

Considering the ringgit value of goodwill, the total value of goodwill reported by companies whose disclosed discount rates were in excess of 150bps below independently estimated rates totalled approximately RM 3 million (92.5%) in 2006 and RM 9 million (77.4%) in 2007 (as evident in Table 6.5), whereas the value of goodwill reported by companies that disclosed discount rates within the expected range totalled approximately RM 0.02 million (0.5%) in 2006 and RM 0.2 million (1.7%) in 2007 (as evident in Table 6.5). Thus, in both years, more than 70% of the value of goodwill allocated to using discount rates more than 150bps below independently estimated rates, apart from reducing the quality of disclosures made pursuant to FRS 136, also lowers the capacity of financial statement users to independently evaluate the extent to which values are assigned to assets, in particular, goodwill.

An alternative view of discount rate variance data is through the goodwill intensity score. The value of goodwill for companies with lower goodwill intensity scores that were subject to impairment testing using discount rates within the expected range were only RM 0.02 million (1.5%) in 2006 and RM 0.09 million (4.9%) in 2007 (as evident in Table 6.6). Thus, a very small proportion of the companies in the sample used discount rates within the expected range, with lower goodwill intensity companies selecting within expected discount rates to a better degree than higher goodwill intensity companies. In contrast, more than 70% of the value of goodwill allocation subjected to impairment testing fell 150bps below the expected discount rate, and it seems to be systematically the case that higher goodwill intensity companies select lower than expected discount rates to a greater degree than

lower goodwill intensity companies. In summary, this research provides evidence consistent with opportunism on the part of financial statement preparers, by demonstrating the existence of variances between independently generated risk-adjusted discount rates and those disclosed by a sample of large listed Malaysian companies.

The evidence set out in the first and second research areas suggests that there are matters for concern because the results have the potential to undermine the robustness of the impairment testing processes undertaken by companies. It also shows that the adoption of new and complex reporting frameworks could affect the preparation and presentation of financial statements and challenge the capability of financial statement preparers and auditors. The application of FRS 136 was mandatory for all companies included in the research sample and the Big 4 audited 60% of companies in both years. Yet the majority of companies failed to comply with the basic requirement of the new goodwill Standard. This raises the question of audit quality provided by the Big 4 in ensuring companies comply with the requirements of the new Standard. Hence, Chapter 7 discusses the analysis of audit quality among the Big 4.



## **CHAPTER 7: AN ASSESSMENT OF AUDIT QUALITY AMONG THE BIG 4 AUDITORS**

### **7.1 Introduction**

Chapters 5 and 6 assessed compliance levels and disclosure quality pursuant to FRS 136 and examined the discount rate used in the goodwill impairment testing process. It was found that the rate of non-compliance was high, that there was variance in the quality of disclosure and evidence of possible opportunism on the part of discount rate selection. This chapter focuses on evidence relating to the apparent quality of financial statement audits in the context of the transition to a new, complex regime. Specifically, the degree of technical compliance with the disclosure requirements of FRS 136 by a sample of large Malaysian listed companies is used as a proxy for audit quality in relation to the complex provisions of the IFRS goodwill impairment testing regime. In exploring this theme, six analytical structures are used to distinguish audit quality among the Big 4 in an attempt to question the homogeneity of audit quality assumption. This research examines the audited disclosures made during the two years of transition (2006 and 2007) under FRS 136 of a sample of large Malaysian listed corporations who each had engaged Big 4 auditors.

This chapter is set out as follows. Section 7.2 identifies the sample drawn from the data described previously in Chapter 4 – Research Method. Section 7.3 contains a description and discussion of the key results of the research and Section 7.4 provides a summary of the findings and a conclusion to the research.

## 7.2 Data and Method

All companies in the sample were clients of the Big 4. The degree of technical compliance with the disclosure requirements of FRS 136 is used as a proxy for audit quality in relation to the complex provisions of the IFRS impairment testing regime. The main emphasis of the method employed was to gather evidence of possible variation in the quality and consistency of goodwill impairment disclosures, with audit firm identity the explanatory variable.

The final research sample is reduced to 173 companies in 2006 and 309 companies in 2007 and table 7.1 summarises the sample selection procedure. To facilitate the analysis of the final research sample, 173 companies in 2006 and 309 companies in 2007 were divided into 14 groups based on the Worldscope DataStream's Industry Group Classification as discussed in Chapter 4 – Research Method.

**Table 7.1 - Sample Selection Procedure**

<b>Selection Procedure</b>	<b>Company year</b>	
	<b>2006</b>	<b>2007</b>
Initial sample from the first empirical chapter	275	490
Companies excluded due to: Audited by non-Big 4 auditors	(102)	(181)
<b>Total</b>	<b>173</b>	<b>309</b>

### 7.3 Results and Discussion

An overview of the research sample, broken down by assigned industry, the ringgit value of company assets within the sector, the ringgit value of goodwill for each sector and the ringgit value of average goodwill within the sector, is shown in Table 7.2. At the date of sampling, companies included in the final sample controlled assets valued at RM 1054 billion in 2006 and RM 1601 billion in 2007, which included goodwill of RM 35 billion in 2006 and RM 48 billion in 2007. The average amount of goodwill decreased slightly from RM 201 million in 2006 to RM 156 million in 2007. However, companies in five of the 14 industry groupings represented in the research sample reported an increased value of average goodwill in 2007 in comparison to 2006, indicating that the data used for the purposes of analysis in this research were not primarily captive to large outlier movements.

In 2006, goodwill represented more than 5% of the total assets for eight groups of industries: Electrical and Electronic (6.94%), Miscellaneous (7.65%), Industrial Products (7.7%), Construction (8.75%), Machinery and Equipment (11.1%), Technology (14.7%), Automotive and Chemicals (15.4%), and Utilities and Transportation (17.2%); whereas in 2007, for seven groups of industries – Plantation (5.77%), Electrical and Electronic (5.95%), Food and Beverage (7.46%), Utilities and Transportation (7.71%), Miscellaneous (9.63%), Technology (12.31%) and Automotive and Chemicals (12.75%) – goodwill represented more than 5% of their total assets. Providing an alternative overview of the research sample, Table 7.3 shows the number of companies audited by each of the Big 4, by industry sector. As Table 7.3 demonstrates, the distribution of large clients among the Big 4 is uneven. Ernst & Young dominates, having audited 41.6% in 2006 and 45% in 2007 of the companies

included in the research sample, followed by KPMG (30.6% in 2006 and 27.5% in 2007), PWC (15.1% in 2006 and 13.9% in 2007) and Deloitte (12.7% in 2006 and 13.6% in 2007).

Table 7.2 – Overview of Research Sample

Sector	No. of Companies		Total Goodwill (RM million)		Average Goodwill (RM million)		Total Assets (RM million)		Goodwill as % Total Assets	
	2006	2007	2006	2007	2006	2007	2006	2007	2006	2007
Automotive and Chemicals	9	10	973	913	108	91	6326	7156	15.4%	12.8%
Construction	17	34	1977	2538	116	75	22 589	51 432	8.8%	4.9%
Consumer Products	7	19	467	667	67	35	11 493	24 346	4.1%	2.7%
Electrical and Electronic	14	16	323	409	23	26	4659	6865	6.9%	6.0%
Financials	19	30	14 309	14 422	753	481	824 193	1 039 054	1.7%	1.4%
Food and Beverage	13	22	302	1253	23	57	7569	16 786	4.0%	7.5%
Industrial Products	9	22	161	324	18	15	2088	16 185	7.7%	2.0%
Machinery and Equipment	13	24	1812	2502	139	104	16 321	53 477	11.1%	4.7%
Miscellaneous	20	28	2481	3407	124	122	32 444	35 380	7.7%	9.6%
Plantation	11	18	255	1563	23	87	11 766	27 075	2.2%	5.8%
Properties	13	27	414	591	32	22	10 284	25 965	4.0%	2.3%
Technology	4	9	62	179	16	20	424	1458	14.7%	12.3%
Trading	13	25	365	2761	28	110	39 603	79 329	0.9%	3.5%
Utilities and Transportation	11	25	10 950	16 698	995	668	63 812	216 497	17.2%	7.7%
<b>TOTAL</b>	<b>173</b>	<b>309</b>	<b>34 851</b>	<b>48 227</b>	<b>201</b>	<b>156</b>	<b>1 053 571</b>	<b>1 601 005</b>	<b>3.3%</b>	<b>3.0%</b>

Table 7.3 – Number of Companies Audited by Sector

Sector	No. of Companies		Deloitte		Ernst & Young		KPMG		PWC	
	2006	2007	2006	2007	2006	2007	2006	2007	2006	2007
Automotive and Chemicals	9	10			1	1	7	8	1	1
Construction	17	34	2	5	8	16	6	9	1	4
Consumer Products	7	19	1	1	3	6	2	8	1	4
Electrical and Electronic	14	16	4	4	1	2	7	8	2	2
Financials	19	30		2	9	18	3	3	7	7
Food and Beverage	13	22	3	6	4	7	4	7	2	2
Industrial Products	9	22	2	4	4	9	3	8		1
Machinery and Equipment	13	24	1	4	3	6	6	9	3	5
Miscellaneous	20	28	3	6	8	14	4	4	5	4
Plantation	11	18			8	12	3	5		1
Properties	13	27	2	4	10	18	1	5		
Technology	4	9	1	1	3	6		2		
Trading	13	25	1	2	7	15	4	4	1	4
Utilities and Transportation	11	25	2	3	3	9	3	5	3	8
TOTAL	173	309	22 (12.7%)	42 (13.6%)	72 (41.6%)	139 (45%)	53 (30.6%)	85 (27.5%)	26 (15.1%)	43 (13.9%)

Table 7.4 shows the key descriptive statistics for the companies in the research sample classified by auditor. On average, Ernst & Young had the greatest number of clients in the research sample, but their market capitalisation was smaller, with 286 million in 2006 and 1483 million in 2007. Clients of PWC dominated the average market capitalisation with RM 4788 million in 2006 and RM 5257 million in 2007.

Table 7.4 also reports the average value of goodwill within the sector and the ringgit value of assets sorted by clients of the Big 4. At the date of sampling, PWC clients had the highest average controlled assets, at RM 25 billion in 2006 and RM 18 billion in 2007, which included average goodwill of RM 955 million in 2006 and RM 718 million in 2007. It also reveals that the average amount of goodwill for PWC clients slightly decreased in 2007 by comparison to 2006. On the other hand, clients of Deloitte reported the lowest average controlled assets, at RM 537 million in 2006 and RM 613 million in 2007, which included average goodwill of RM 80 million in 2006 and RM 52 million in 2007. The average amount of goodwill for Deloitte clients slightly decreased in 2007 by comparison to 2006. Only clients of Ernst & Young reported a slight increase on the average amount of goodwill, with RM 62 million in 2006 and RM 77 million in 2007.

However, it was Deloitte clients which, on average, had the highest levels of goodwill relative to assets (14.8% in 2006 and 8.7% in 2007), followed by PWC at 3.8% in 2006 and 4.1% in 2007, Ernst & Young at 2.3% in 2006 and 1.9% in 2007 and KPMG at 2.0% in 2006 and 1.9% in 2007. Only clients of PWC reported a slight increase in the levels of goodwill relative to assets in 2007 as compared to 2006. In consequence it is posited that the potential earnings sensitivity of Deloitte clients to impairment losses on goodwill write-downs was, on average, higher than that for clients of other Big 4 audit firms included in the

sample. This was measured by the ratio of goodwill to NPBT at 3.31 in 2006 and 1.63 in 2007.



**Table 7.4 – Descriptive Statistics of Companies by Auditor**

Description	Deloitte		Ernst & Young		KPMG		PWC	
	n = 22	n = 42	n = 72	n = 139	n = 53	n = 85	n = 26	n = 43
	2006	2007	2006	2007	2006	2007	2006	2007
Mean Market Capitalisation (RM million)	255	336	286	1483	839	1111	4788	5257
Mean Total Assets (RM million)	537	613	2714	4172	3545	2766	25 319	17 681
Mean Goodwill (RM million)	80	52	62	77	72	53	955	718
Mean NPBT (RM million)	24	32	80	134	73	96	580	520
Goodwill as % assets (financials)	0	3.2%	1.7%	0.6%	1.38%	1.30%	1.85%	2.13%
Goodwill as % assets (non-financials)	14.8%	8.7%	3.2%	4.9%	5.98%	3.87%	12.81%	6.77%
Goodwill as % assets (all sectors)	14.8%	8.5%	2.3%	1.9%	2.03%	1.90%	3.77%	4.06%
Ratio of Goodwill : NPBT	3.3 : 1	1.6 : 1	0.8 : 1	0.6 : 1	1.0 : 1	0.6 : 1	1.7 : 1	1.4 : 1

The basic question contemplated in this research relates to the degree to which technical expertise survives periods of material regulatory inflexion sufficient to underpin quality financial reporting outcomes. The onset of change in regulatory arrangements impacts both preparers and auditors of financial statements. Consequently, the initial change period represents an ideal point at which to investigate the content of financial statements drawn up under new and complex standards, with a view to gaining insights into the quality of oversight offered by the audit profession.

The threshold question in understanding the process used by a reporting entity to test for the impairment of goodwill relates to the identity of the valuation method used to estimate the recoverable amount of the assets assigned to CGUs. Paragraph 18 of FRS 136 stipulates that either fair value (where appropriate market benchmarks exist) or VIU may be used as the basis for determining the recoverable amount. The frequency with which sample companies adopted fair value and VIU as a basis for the estimation of the recoverable amount of CGU assets is set out in Table 7.5.

The data demonstrate that the most common approach to the determination of the recoverable amount was that of VIU. A total of 107 firms (61.8%) in 2006 and 207 companies (67%) in 2007 used this method as the sole basis of determining the recoverable amount of CGU assets. In 2006, PWC clients adopted VIU methods most frequently, with 20 companies (76.9%); in 2007, KPMG clients were the biggest adopters, with 60 companies (70.6%). An explanation for the use of VIU to the virtual exclusion of fair value may lie in the limited existence of active and liquid asset markets in Malaysia (Fah, 2006).

A further four companies (2.3%) in 2006 and seven companies (2.3%) in 2007 used fair value as the sole basis for determining the recoverable amount. Six companies (3.5%) in 2006 and nine companies (2.9%) in 2007 reported that they had applied a combination of methods, as relevant to the differing characteristics of their CGUs. Fifty-six companies in 2006 and 86 companies in 2007 (over a quarter of the research sample) did not disclose any details of the method they used in determining the recoverable amount of CGU assets. Reporting entities audited by KPMG had the highest no effective disclosure in 2006 with 24 companies (45.3%), while in 2007 Deloitte clients reported the highest with 20 companies (47.6%) failing this basic point of compliance. It is clearly shown that KPMG and Deloitte clients were in breach of FRS 136 owing to their failure to disclose the information regarding the method employed to determine the recoverable amount. Other than that, this basic requirement does not suggest evidence of cross-sectional disclosure practice variation explicable by reference to audit firm identity.

Table 7.5 – Method Employed by Companies to Determine Recoverable Amount

Number of Companies	Deloitte		Ernst & Young		KPMG		PWC		Total	
	n = 22	n = 42	n = 72	n = 139	n = 53	n = 85	n = 26	n = 43	n = 173	n = 309
	2006	2007	2006	2007	2006	2007	2006	2007	2006	2007
Fair Value Method			3 (4.2%)	5 (3.6%)		1 (1.2%)	1 (3.8%)	1 (2.3%)	4 (2.3%)	7 (2.3%)
VIU Method	13 (59.1%)	22 (52.4%)	46 (63.9%)	96 (69.1%)	28 (52.8%)	60 (70.6%)	20 (76.9%)	29 (67.4%)	107 (61.8%)	207 (67.0%)
Combination of Methods			4 (5.6%)	6 (4.3%)	1 (1.9%)	1 (1.2%)	1 (3.8%)	2 (4.7%)	6 (3.5%)	9 (2.9%)
No Effective Disclosure	9 (40.9%)	20 (47.6%)	19 (26.4%)	32 (23.0%)	24 (45.3%)	23 (27.1%)	4 (15.4%)	11 (25.6%)	56 (32.4%)	86 (27.8%)

The next analytical procedure employed involved test checking the extent to which it was possible to reconcile the reported amount of goodwill on the consolidated balance sheets of the companies in the research sample with the sum of the amounts of goodwill allocated to those companies' CGUs. As set out in Table 7.6 below, again, substantial non-compliance with a basic (and not particularly technically onerous) requirement of FRS 136 is clearly evident. While 99 companies (57.2%) in 2006 and 176 companies (57%) in 2007 did produce disclosures which demonstrated full reconciliation between the quantum of balance sheet reported goodwill and the amount disclosed as having been allocated between the various CGUs defined by each, the remaining 74 companies (42.8%) in 2006 and 133 companies (43%) in 2007 failed to provide any meaningful disclosures (as required under Paragraph 80 of FRS 136) in relation to the association between components of total company goodwill and CGUs. KPMG clients had the highest rate of non-compliance in 2006 (30 companies or 56.6%), whereas in 2007, Deloitte clients had the highest rate of non-compliance (26 companies or 61.9%).

There is some possibility that 55 of the 74 companies in 2006 and 102 of the 133 companies in 2007 may have taken the view that they had no need to comply with the requirement to disclose the amount of goodwill allocated to each CGU owing to the low materiality of goodwill on their balance sheets relative to total assets; in these cases goodwill represented less than 5% of total assets, a relatively small amount. However, this view is likely to have been erroneous given that the Standard clearly stipulates that the relevant materiality benchmark is total intangible assets, not total assets.<sup>162</sup> The list of companies is listed in Appendix C.

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<sup>162</sup> See Paragraph 134 of FRS 136.

However, there can be no doubt that the 19 companies in 2006 and 31 companies in 2007 that failed to provide this basic disclosure were in breach of the Standard's requirements. Of the 31 companies in 2007, each of the Deloitte (Leong Hup Holdings), KPMG (Versatile Creative) and Ernst & Young (Harbour-Link Group) clients had recognised an impairment loss in the income statement without any allocation of goodwill to a CGU. Other than breaching the Standard, these companies did not provide sufficient information regarding the basis of impairment testing. Again, it is not possible to construct a conclusion of variation based on audit firm identity alone.

Table 7.6 – CGU Allocation Compliance by Auditor

Number of Companies	Deloitte		Ernst & Young		KPMG		PWC		Total	
	n = 22	n = 42	n = 72	n = 139	n = 53	n = 85	n = 26	n = 43	n = 173	n = 309
	2006	2007	2006	2007	2006	2007	2006	2007	2006	2007
Fully Compliant	11 (50.0%)	16 (38.1%)	45 (62.5%)	88 (63.3%)	23 (43.4%)	45 (52.9%)	20 (76.9%)	27 (62.8%)	99 (57.2%)	176 (57.0%)
Non-compliant	11 (50.0%)	26 (61.9%)	27 (37.5%)	51 (36.7%)	30 (56.6%)	40 (47.1%)	6 (23.1%)	16 (37.2%)	74 (42.8%)	133 (43.0%)

The next phase of the analysis was based on the preparation of evidence pertaining to the goodwill aggregation problem. Recall that a concern raised in Chapter 5 on IFRS-based impairment testing is the 'aggregation problem', where companies generate an internal 'portfolio diversification' effect by combining imperfectly correlated elements of their businesses which, in reality, can and do generate independent streams of cash flow and are subject to internal management reporting. In these situations, fewer CGUs than required will be defined, with the result that the chance of being forced to recognise impairment losses in weaker elements of the business is reduced. This subverts the requirement that goodwill be rigorously subjected to impairment testing and that the timing of goodwill impairment loss recognition be driven by the underlying economics of each of the independent cash flow streams that comprise the business, rather than by managerial discretion.

A key problem in attempting to conduct meaningful analysis of the likelihood that CGU aggregation behaviour has been present among large Malaysian companies' reporting subject to IFRS is that the standard of compliance with basic disclosure requirements is poor. Yet even though almost half the sample failed to comply with the requirement that CGU identities and allocated goodwill amounts be disclosed, some themes emerge from the data. Tables 7.7 and 7.8 contain the results of these tests.

While the first two analytical procedures applied to the data do not conclusively suggest evidence of cross-sectional disclosure practice variation explicable by reference to audit firm identity, later procedures did exhibit patterns more consistent with this possibility. Table 7.7 suggests a greater tendency on the part of KPMG and Deloitte clients to define fewer CGUs or provide no meaningful data on CGU definition. The data reveals



that in 2006, 83% of KPMG clients and in 2007, 83% of Deloitte clients defined fewer CGUs than business segments or failed to provide meaningful disclosure about the identity of, and level of goodwill allocation to, CGUs. However, other clients of the Big 4 also showed a high rate in defining fewer CGUs than business segments (74% in 2006 and 75% in 2007 for Ernst & Young clients; and 65% in 2006 and 77% in 2007 for PWC clients). This suggests a higher risk factor of CGU aggregation for all clients of the Big 4.

Table 7.7 – Business Segments and CGU Aggregation by Auditor

Sector	Deloitte		Ernst & Young		KPMG		PWC		Total	
	n = 22	n = 42	n = 72	n = 139	n = 53	n = 85	n = 26	n = 43	n = 173	n = 309
	2006	2007	2006	2007	2006	2007	2006	2007	2006	2007
No Effective Disclosure	10 (45.5%)	24 (57.1%)	27 (37.5%)	50 (36.0%)	30 (56.6%)	40 (47.1%)	6 (23.1%)	15 (34.9%)	73 (42.2%)	129 (41.7%)
CGUs < Segments	8 (36.4%)	11 (26.2%)	26 (36.1%)	54 (38.8%)	14 (26.4%)	27 (31.8%)	11 (42.3%)	18 (41.9%)	59 (34.1%)	110 (35.6%)
CGUs = Segments	3 (13.6%)	6 (14.3%)	11 (15.3%)	24 (17.3%)	5 (9.4%)	10 (11.8%)	5 (19.2%)	4 (9.3%)	24 (13.9%)	44 (14.2%)
CGUs > Segments	1 (4.5%)	1 (2.4%)	8 (11.1%)	11 (7.9%)	4 (7.5%)	8 (9.4%)	4 (15.4%)	6 (14.0%)	17 (9.8%)	26 (8.4%)
Proportion of Companies where CGUs < Segments or No Effective Disclosure	82%	83%	74%	75%	83%	79%	65%	77%		

The same pattern emerges when the CGU to business segment ratio for each sample company is calculated, stratified and sorted according to audit firm identity, as set out in Table 7.8, below. In instances where data pertaining to the existence and identity of CGUs is disclosed, the tendency is for fewer rather than more CGUs to be defined. With regard to more CGUs than business segments being defined, PWC clients reported the highest ratio (more than 1.01 CGUs per segment defined) at 15.4% in 2006 and 14.0% in 2007. Ernst & Young clients followed at 11.1% in 2006 and 7.9% in 2007, with KPMG clients at 7.6% in 2006 and 9.4% in 2007, and Deloitte clients at only 4.6% in 2006 and 2.4% in 2007.

Bearing in mind the expectation in the Standard that CGUs should be no larger than defined business segments, it is anomalous to see so many instances where fewer CGUs than segments exist. A possible interpretation of the data is that by 2007, companies became more attuned to the capacity to avoid undesired impairment charges via the aggregation of CGUs. The consequences of this type of activity could extend to overstatements of earnings and net assets, understatements of leverage and reduced reporting transparency.

The results in Tables 7.7 and 7.8 may have been clouded by the poor quality of disclosure relating to CGUs, but arguably this is an interesting observation in its own right. As a tentative conclusion, there does appear to be some evidence consistent with the risk of CGU aggregation and the magnitude of that risk does not appear to vary systematically according to audit firm identity.

Table 7.8 – Ratio of CGUs to Business Segments

Sector	Deloitte		Ernst & Young		KPMG		PWC	
	n = 22	n = 42	n = 72	n = 139	n = 53	n = 85	n = 26	n = 43
	2006	2007	2006	2007	2006	2007	2006	2007
No Effective Disclosure	10	24	27	50	30	40	6	15
CGU : Segment is between 0.00 – 0.50	6	9	18	37	12	21	2	8
CGU : Segment is between 0.51 - 0.99	2	2	8	17	2	6	9	10
CGU : Segment is = 1	3	6	11	24	5	10	5	4
CGU : Segment is between 1.01 - 1.50			3	2	2	2	1	2
CGU : Segment is > 1.50	1	1	5	9	2	6	3	4
Mean CGU : Segment ratio	0.7	0.7	0.8	0.8	0.8	0.9	1.0	1.0
Median CGU : Segment ratio	0.6	0.5	0.7	0.7	0.5	0.7	0.8	0.8
Minimum CGU : Segment ratio	0	0	0	0	0	0	0	0
Maximum CGU : Segment ratio	2	3	2.5	3	3	3	3	3
% CGU : Segment ratio > 1.01	4.6%	2.4%	11.1%	7.9%	7.6%	9.4%	15.4%	14.0%

The final strands of the analysis undertaken relate to discount and growth rate disclosures made by the companies in the sample. Table 7.9 contains the results of the discount rate analysis. A theme that again emerges in this dataset is the systematically poor quality of disclosures made by companies in relation to the discount rates applied for the purposes of impairment testing. However, no evidence of variances explicable with reference to audit firm identity emerged between the quality of disclosures relating to discount rates made by sample companies. Deloitte clients provided the highest rate of no effective disclosure pertaining to discount rates with 15 companies (68.2%) in 2006 and 28 companies (66.7%) in 2007. Clients of the other Big 4 auditors also indicated a high rate of no effective disclosure with regard to the discount rates.

More often the practice was to define a single discount rate and apply this on a blanket basis to all CGUs (without apparent regard to risk variation between CGUs). Given that it is most unlikely that all CGUs within these companies have substantially the same risk profile, it appears defensible to conclude that inappropriate discount rates were being used in a substantial number of impairment testing procedures. PWC and Ernst & Young clients disclosed the highest in 2006 and 2007 at 40% (PWC) in 2006 and 38.8% (Ernst & Young) in 2007.

A further seven (4.1%) companies in 2006 and eight (2.6%) companies in 2007 provided details of a range of discount rates (generally not helpful in allowing detailed financial statement user insights into the robustness of the impairment testing process) which had been used in the value estimation exercise, but no details of specific discount rates used in relation to particular CGUs. Clients of Ernst & Young disclosed the highest with four companies (5.8%) in 2006 and five companies (3.7%) in 2007. Only 18 companies

(10.7%) in 2006 and 22 companies (7.3%) in 2007 had particularised discount rates specific to individual CGUs, as required. PWC clients disclosed the highest at 32% in 2006 and 23.8% in 2007.

Aside from the lack of consistent adherence to the disclosure framework for discount rates set out in FRS 136, it was also apparent that anomalies existed with respect to the value chosen for the discount rate employed by some clients of the Big 4. The average discount rate applied by Deloitte clients in modelling the CGU asset recoverable amount was the lowest; however, other Big 4 auditor clients also applied a low average discount rate. Deloitte clients adopted a rate of 3.7% in 2006 and 3.0% in 2007.<sup>163</sup> A lower discount rate applied to the task of recoverable amount estimation would tend to increase estimated asset recoverable amounts and thus lower the chance of an impairment loss in any given year. Thus, in addition to demonstrating poor quality compliance, the data also hints at the adoption of inappropriately low discount rates<sup>164</sup> in certain cases.

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163 This judgment is proffered on the basis that long-run sovereign risk-free rates in jurisdictions such as the US have tended to manifest at levels in excess of 5%, and in Australia at 6%. It is therefore unusual that discount rates appropriate to risky enterprises in a less developed economic setting should be so low.

164 With the result that the present value of CGU cash flows is overestimated and the likelihood of the recognition of an impairment loss very substantially reduced.

**Table 7.9 – Analysis of Discount Rates Used to Test Impairment (VIU and Mixed Method Companies Only)**

Number of Companies	Deloitte		Ernst & Young		KPMG		PWC		Total	
	n = 22	n = 42	n = 69	n = 134	n = 53	n = 84	n = 25	n = 42	n = 169	n = 302
	2006	2007	2006	2007	2006	2007	2006	2007	2006	2007
No Effective Disclosure	15 (68.2%)	28 (66.7%)	37 (53.6%)	68 (50.7%)	35 (66%)	47 (56%)	6 (24%)	15 (35.7%)	93 (55%)	158 (52.3%)
Range of Discount Rates			4 (5.8%)	5 (3.7%)	2 (3.8%)	2 (2.4%)	1 (4%)	1 (2.4%)	7 (4.1%)	8 (2.6%)
Single Explicit Discount Rate	7 (31.8%)	14 (33.3%)	19 (27.5%)	52 (38.8%)	15 (28.3%)	32 (38.1%)	10 (40%)	16 (38.1%)	51 (30.2%)	114 (37.7%)
Multiple Explicit Rates			9 (13%)	9 (6.7%)	1 (1.9%)	3 (3.6%)	8 (32%)	10 (23.8%)	18 (10.7%)	22 (7.3%)
Minimum Discount Rate	3.7%	3.0%	5.0%	3.3%	6.0%	4.9%	5.0%	5.8%		
Maximum Discount Rate	12.1%	15.3%	31.5%	32.0%	15.0%	15.0%	19.7%	23.3%		
Median Discount Rate	7.0%	6.9%	8.0%	8.1%	8.0%	7.9%	8.2%	10.4%		
Mean Discount Rate	7.0%	7.0%	9.0%	8.7%	8.8%	8.2%	9.6%	10.4%		

An inspection of data pertaining to growth rates used in recoverable amount modelling reveals a very similar pattern to that discernible in the data pertaining to discount rates. This data is set out in Table 7.10, below. Discounted cash flow models used as a basis for valuation typically consist of two components. The first is an explicit forecast period covered by the most recent budgets/forecasts; the second may be thought of as a terminal value component during which some form of constant growth (or steady state) assumption is made in relation to cash flows which emerge in the model from the year after the conclusion of the explicit forecast horizon through to perpetuity. Under FRS 136, companies are not required to publish details of their growth assumptions during the first of these two stages (that is, the explicit growth forecast horizon).<sup>165</sup> However, it is necessary for any growth assumptions pertaining to the terminal value component of the model to be made explicit. Thus, the observed growth rate data set out in Table 7.10 relates to assumptions expressed in relation to growth rates used to extrapolate beyond the budget/forecast period, being the terminal value to perpetuity element of valuation models used by companies.

Cursory inspection of this data immediately reveals the profound inadequacy of company growth rate disclosures, with in excess of 60% of the sample companies in both years apparently ignoring the clear requirement of FRS 136 that disclosures relating to growth rate assumptions applied in impairment testing be published. Clients of Deloitte and KPMG were less likely to provide specific disclosures relating to growth rates applied in recoverable amount modelling which would assist financial statement users in independently assessing the validity of the goodwill impairment testing process. The rate of

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<sup>165</sup> Paragraph 134 d (iv) of FRS 136.



non-compliance was 92.5% (KPMG) in 2006 and 83.3% (Deloitte) in 2007. However, clients of the other Big 4 auditors also showed a high rate of non-compliance with growth rate disclosure.

As set out in Table 7.10, average assumed growth rates used by Deloitte clients were higher than the average assumed growth rates of other clients of Big 4 auditors. A higher average assumed growth rate would, all things being equal, increase the estimated value of the recoverable amount of CGU assets, and lessen the chance of a goodwill impairment loss being recorded in any particular period. As will be evident, the mean and median values for assumed growth appear relatively conservative, given that the Malaysian long-run nominal GDP growth has been in excess of these levels and can likely be expected to remain so. However, it is notable that the explicit forecast horizons embedded in the valuation models of those organisations which made meaningful disclosures tended to be short (no longer than about five years). This raises the likelihood that the bulk of model value lies in the terminal value component of the simulation, something generally regarded as risky and as reducing the robustness of the valuation modelling exercise.

**Table 7.10 – Analysis of Growth Rates Used to Test Impairment (VIU and Mixed Method Companies Only)**

Sector	Deloitte		Ernst & Young		KPMG		PWC		Total	
	n = 22	n = 42	n = 69	n = 134	n = 53	n = 84	n = 25	n = 42	n = 169	n = 302
	2006	2007	2006	2007	2006	2007	2006	2007	2006	2007
No Effective Disclosure	18 (81.8%)	35 (83.3%)	40 (58%)	82 (61.2%)	49 (92.5%)	66 (78.6%)	14 (56%)	22 (52.4%)	121 (71.6%)	205 (67.9%)
Range Growth Rate	1 (4.5%)	1 (2.4%)	3 (4.3%)	4 (3%)		8 (9.5%)			4 (2.4%)	13 (4.3%)
Single Growth Rate	3 (13.6%)	6 (14.3%)	20 (29%)	39 (29.1%)	3 (5.7%)	8 (9.5%)	7 (28%)	13 (31%)	33 (19.5%)	66 (21.9%)
Multiple Growth Rates			6 (8.7%)	9 (6.7%)	1 (1.9%)	2 (2.4%)	4 (16%)	7 (16.7%)	11 (6.5%)	18 (6%)
Mean Explicit Forecast Period (years)	3	2.4	3.4	3.3	3.02	3.05	4	3.35		
Minimum Growth Rate	5.0%	3.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%		
Maximum Growth Rate	30.0%	30.0%	40.8%	58.0%	12.0%	30.0%	50.0%	62.0%		
Median Growth Rate	11.0%	10.0%	5.0%	5.0%	5.3%	5.3%	3.5%	3.8%		
Mean Growth Rate	13.0%	10.6%	6.4%	7.4%	5.6%	7.8%	7.7%	6.6%		

## 7.4 Conclusion

The third research area focused on evidence relating to the quality of financial statement audits in the context of the transition to a new, complex regime. Specifically, the degree of technical compliance with the disclosure requirements of FRS 136 by a sample of large Malaysian listed companies was used as a proxy for audit quality. The adoption of the new and revised FRS modelled tightly on IFRS by Malaysian companies presents an interesting opportunity for research into the impact of expertise disruption on audit quality. Six analytical structures were used to distinguish audit quality among the Big 4, and in so doing the homogeneity of audit quality assumption was questioned. The audited disclosures made during the two-year transition period under FRS 136 of a sample of large Malaysian listed companies who had engaged Big 4 auditors was examined.

The first analytical structure relates to the valuation method used to estimate the recoverable amount of the assets assigned to CGUs. It was found that PWC (in 2006 with 76.9%) and KPMG (in 2007 with 70.6%) clients had the highest adoption of VIU methods, but KPMG (in 2006 with 45.3%) and Deloitte (in 2007 with 47.6%) clients had the highest rate of no effective disclosure. The second analytical structure examined the extent to which it was possible to reconcile the reported amount of goodwill on the consolidated balance sheet of the companies in the research sample with the sum of the amounts of goodwill allocated to those companies' CGUs. Substantial non-compliance with this basic requirement of FRS 136 was clearly evident. KPMG clients (in 2006 with 56.6%) and those of Deloitte (in 2007 with 61.9%) reported the highest rate of non-compliance, whereas clients of PWC (in 2006 with 76.9%) and those of Ernst & Young (in 2007 with 63.3%) documented a higher rate of compliance with the

requirements of FRS 136. Thus, in the first and second analytical procedures, the high rate of non-compliance by all clients of the Big 4 meant that it was not possible to construct a conclusion of variation explained by audit firm identity alone.

The third and fourth analytical structures were based on the preparation of evidence pertaining to the goodwill aggregation problem. The result suggested a greater tendency on the part of KPMG (in 2006 with 83%) and Deloitte (in 2007 with 83%) clients to define fewer CGUs or to provide no meaningful data on CGU definition. Clients of the other Big 4 auditors also showed a higher rate in defining fewer CGUs than business segments. This suggests a higher risk factor of CGU aggregation in all Big 4 auditors. The consequences of this type of activity could extend to overstatements of earnings and net assets, understatements of leverage and reduced reporting transparency.

The fifth analytical structure analysed discount rates, and the quality of disclosures made by companies in relation to the discount rates applied for the purposes of impairment testing was systematically poor. Clients of Deloitte provided the highest rate of no effective disclosure pertaining to discount rates in both years, whereas clients of the other Big 4 auditors also indicated a high rate of no effective disclosure. It was also documented that discount rates applied by Deloitte clients in the context of modelling the CGU asset recoverable amount was the lowest (3.7% in 2006 and 3.0% in 2007); however, other Big 4 auditor clients also applied a low average discount rate compared to average Malaysian Government Security. A lower discount rate applied to the task of recoverable amount estimation would tend to increase estimated asset recoverable amounts and thus lower the chance of an impairment loss in any given year.

The final analytical structure analysed growth rates and the results were similar to those achieved for discount rates, where it was noted that over 60% of the sample companies in both years apparently ignored the disclosures requirements with regard to growth rate assumptions. KPMG clients (in 2006 with 92.5%) and those of Deloitte (in 2007 with 83.3%) had the highest rates of non-compliance relating to growth rates applied in recoverable amount modelling. However, clients of the other Big 4 auditors also demonstrated a high rate of non-compliance. In term of growth rates selection, Deloitte clients had the highest average growth rates assumptions (11% in 2006 and 10% in 2007). A higher average assumed growth rate would increase the estimated value of the recoverable amount of CGU assets, and lessen the chance of a goodwill impairment loss being recorded in any particular period.

The evidence presented in this research suggests that there is no variation in audit quality among the Big 4 and contributes to the literature by providing at least preliminary evidence for the proposition that audit quality among the largest audit firms is homogenous, as has so often been assumed in previous studies. In addition, the result is troubling because, although the application of FRS 136 was mandatory for all of the companies included in the final research sample, these companies systematically failed to comply with even the basic elements of the Standard in relation to goodwill impairment testing. This was even the case when all of the reports upon which this research was constructed had been subjected to audit by 'big brand' international audit franchises.

This concludes the third research area of this dissertation. The findings will be of interest to investors, analysts, regulators and enforcers, not only in Malaysia but also in other

jurisdictions undergoing transition to IFRS, in particular those whose reporting regimes portray similar features.

Chapter 8 follows and forms the conclusion of the research. It summarises the findings, recommends an improvement in the practice of IFRS goodwill impairment testing in Malaysia, draws attention to some limitations of this research and suggests areas for future research opportunities.

## CHAPTER EIGHT: CONCLUSIONS AND RECOMMENDATIONS

### 8.1 Introduction

As set out in Chapter 1, this dissertation focused on three important research areas in examining IFRS goodwill impairment testing in Malaysia. A sample of 275 companies in 2006 and 490 companies in 2007 of the largest listed Malaysian corporations that reported goodwill in their audited consolidated financial statements was used to examine the degree to which financial statement preparers and auditors were positioned to respond effectively to the new FRS 136. This dissertation and the knowledge gained from it have provided insights into the current goodwill accounting practice in Malaysia. In setting out the final conclusions derived from the body of research reported in this dissertation, it is appropriate to revisit the three research aims, which were:

1. To assess the level of compliance with a variety of the provisions under FRS 136 and the quality of disclosure pertaining to the high-risk issue of goodwill impairment testing made by a sample of large Malaysian listed companies in the two years of FRS-based reporting.
2. To understand the selection of discount rates disclosed in the impairment testing process by a sample of large Malaysian listed companies and compare it with independently generated discount rates.

3. To examine the degree and variances of technical compliance with the disclosure requirements of FRS 136 as a proxy for audit quality among Big 4 audit firm clients in Malaysia and to attempt to question the homogeneity of audit quality assumption.

This chapter concludes the research. Section 8.2 summarises the main findings, Section 8.3, recommends an improvement in the practice of IFRS goodwill impairment testing in Malaysia, Section 8.4 draws attention to some limitations of the study, and Section 8.5 provides a discussion on future research opportunities.

## **8.2 Summary of Findings**

From 1 January 2006, Malaysian companies were required to implement all the FRS issued by the MASB in the preparation and presentation of financial statements. The revised Standards are in line with the IFRS issued by the IASB, whose objective has been to produce a single set of high-quality global reporting standards that eliminate incomparability in order to achieve convergence in the world of accounting. The requirement that FRS 136 be adopted in Malaysia represented a substantial break from a past in which there had been no mandatory standard framework for goodwill accounting and reporting. This lack of a compulsory standard relating to goodwill had led to considerable diversity in practice resulting in lower consistency, comparability and transparency. Thus, the provisions of FRS 136 have provided a basis upon which these challenges may be resolved ultimately leading to higher reporting quality.



FRS 136 introduced a formal requirement that goodwill in a business combination no longer be amortised but rather subjected to systematic impairment testing annually or whenever events or circumstances indicate its value may have been impaired. The requirement of the new goodwill Standard involves a higher degree of complexity in relation to conceptualisation, measurement and disclosure in financial statements. The highly prescriptive and technical provisions of FRS 136 are filled with subjectivity and ambiguity for financial report preparers and auditors, and require the exercise of judgment and discretion.

The move to IFRS in Malaysia was a substantial shock for auditors and preparers of financial statements, who were not necessarily in a position to respond effectively. Thus, the first research area focused on the disclosure requirements pursuant to FRS 136 and examined specifically the level of compliance with a variety of the provisions of the new goodwill Standard to assess the quality of disclosures provided in accordance with it.

It was found that the potential for high transparency did not translate into actual improvements in practice. The results showed evidence of systematic non-compliance with the disclosure requirements to provide details of the manner in which companies had to allocate goodwill between CGUs for the purpose of impairment testing. The rates of clear non-compliance were surprisingly high, with 56.7% of companies in 2006 and 54.3% of companies in 2007 failing to produce disclosures.

This failure to fully allocate recognised goodwill to all defined CGUs was not the only prominent risk issue. Perhaps a greater challenge to transparency and information quality stems from the possibility that organisations allocate goodwill to too few CGUs. The evidence in

this research is consistent with that proposition – in 2006 27.6% of companies and in 2007 29.6% of companies defined fewer CGUs than business segments. The consequences of this type of activity include overstatements of earnings and net assets, understatements of leverage and reduced reporting transparency.

It was found that the disclosures in relation to the key assumptions used to determine the recoverable amount of CGU exhibited a range of deficiencies including a higher rate of non-compliance with the disclosure requirements of discount rates, growth rates and forecast periods used in the impairment testing process under the VIU method, with more than 40% of the companies in both years failing to disclose according to the new goodwill Standard. There was also evidence that some reporting entities applied unusually low discount rates, and unusually high growth rates in cash flow models used as a basis for CGU recoverable amount estimation. The lack of compliance and poor disclosure quality with regard to the requirements of FRS 136 presented by most of the companies in the sample clouds a vital window into the impairment testing process.

The thesis then examined the central material factor impacting the valuation model – discount rate. The importance of the discount rate selection decision is stated clearly in FRS 136. Given the strong dependence on discounted cash flow modelling as a basis in determining an asset's recoverable amount, the judgment exercised by reporting entities regarding discount rate selection is important in influencing the outcomes of the impairment testing process. Some of the practical difficulties faced by financial preparers included the estimation of future cash flows and appropriate discount rates for those cash flows. The discretion surrounding discount

rate selection could be used opportunistically to avoid or manage the timing of impairment losses and lower the transparency and comparability of financial statements.

Thus, in the second research area, the discount rates disclosed by large Malaysian companies were compared with independently generated discount rates to establish evidence of potential opportunism in discount rate selection. The result reinforced the findings of the first research area on level of compliance and quality of disclosure and suggested that there is evidence of potentially opportunistic behaviour in the selection of discount rates.

In 2006 and 2007, 92.4% and 72.4% of companies respectively observed discount rates in excess of 150 bps lower than the independent risk-adjusted estimate, which indicates the existence of a bias among Malaysian companies towards the application of lower than expected discount rates. In terms of the ringgit value of goodwill reported by these companies, a total of approximately RM 3 million (81.4%) in 2006 and RM 8.7 million (77.4%) in 2007 was reported. Then, further analysis was carried out using goodwill intensity as an alternative means of stratifying the discount rate variance data. It was found that more than 70% of the value of goodwill allocation in both years subjected to impairment testing fell 150bps below the expected discount rate. It does therefore seem to be systematically the case that higher goodwill intensity companies select lower than expected discount rates to a greater degree than lower goodwill intensity companies. The evidence set out in this research area suggests that apart from the evidence of potentially opportunistic behaviour in the selection of discount rates, the capacity of financial statement users to independently evaluate the extent to which values assigned to assets in particular, goodwill, is reduced.

From the results gathered in the first and second research areas, the adoption of new and complex goodwill reporting frameworks could affect the preparation and presentation of financial statements and challenge the capability of financial statement preparers and auditors. Thus, the third research area analysed the quality of disclosures pertaining to the high-risk issue of goodwill impairment testing made by the sample of large Malaysian listed companies, all of whom were clients of the Big 4. The degree of technical compliance with the disclosure requirements of FRS 136 was used as a proxy for audit quality, and the research attempted to question the homogenous audit quality assumption using six analytical structures.

It was found that there was no plausible evidence in the dataset of meaningful variation in compliance levels or disclosure quality among the clients of the Big 4. There was also a systemic failure on the part of the Big 4 in Malaysia to comply with the basic elements of the FRS 136 disclosure framework in relation to goodwill impairment testing. More than 40% of the sample of companies in both years reported poor compliance with the requirements of the new goodwill Standard even though all the companies in this sub-sample were audited by 'big brand' international audit franchises. This suggests a systemic failure on the part of highly professional and reputable audit franchises to combat what can at best be described as a loose application of the rules by reporting entities.

Given the summary of evidence presented above, it can be concluded that the overall practice of compliance with IFRS goodwill impairment in Malaysia during this period was poor. This dissertation has provided substantial evidence that the audited consolidated financial statements for the majority of the companies included in the sample did not comply with many of the basic requirements of FRS 136. The next section provides recommendations for

preparers, auditors, standard-setters and regulatory bodies for improving the practice of IFRS goodwill impairment testing in Malaysia.

### **8.3 Recommendations for Improving the Practice of IFRS Goodwill Impairment Testing**

The objective of the new IFRS regime is to improve the comparability of financial reports which in turn benefits investors. Through financial reports, financial statement preparers play an important role in effectively communicating with investors to ensure the efficiency and competitiveness of global capital markets. The results of this dissertation therefore will be of substantial interest to participants in Malaysian equity capital markets. In particular, where goodwill represents a material component of company financial statements, the lack of transparency and consistency in relation to the treatment of goodwill and the nature of any impairment testing processes undertaken in relation to this balance raises substantial questions about the degree to which markets for the securities of these companies could be seen as appropriately informed. Thus, this research recommends that preparers of financial statements be fully educated in the requirements of the IFRS reporting regime by attending training courses, and participating in regular review forums and discussions within the accounting profession in order to share information about financial reporting requirements and developments.

With regard to the complexity of the requirements pursuant to FRS 136, more research needs to be conducted to resolve this issue. The relevant parties, who include financial

reporting preparers, auditors and academics, should try to reconcile their ideas in order to find the best method for valuation and measurement of goodwill impairment testing (this includes comprehensive guidelines regarding CGU definition, a starting point in the estimation of discount rates and precise judgment in determining future growth rates). This may enhance the credibility of financial statements in particular and the accounting profession in general.

Auditors are likely to play an important role in ensuring companies comply with the requirements of IFRS. The evidence from this research shows that some audit firms have materially misstated and yet no audit firms have been sued or disciplined for any infringements of audit regulations, which raises the question of how effective is the system for monitoring audit quality and how effective will auditors be in enforcing compliance with IFRS? In order to solve this issue, it would be essential to have an independent regulator, perhaps attached to the Securities Commission, to enforce compliance and report any irregularities being conducted by auditors and preparers of financial statements. In terms of audit review, it would be useful for audit firms to develop quality controls for IFRS accounts, to be reviewed only by IFRS experts.

The result of poor compliance in the adoption of the IFRS regime might be due to the complicated nature of IFRS and a lack of IFRS implementation guidance, which makes it difficult for preparers and auditors who have limited experience in dealing with such situations. Thus, this research recommends that audit firms develop training programs, and audit staff should undergo an internal assessment before being allowed to work on IFRS accounts, to ensure that they are fully equipped with the knowledge needed to ensure companies comply with the complex IFRS requirements.

With regard to the role of auditors in assuring the production and issue of high-quality financial reports, the regulatory and legislative authorities have to enforce a higher degree of regulation on practice and financial statement reviews by the IFRS expert in order to maintain a highly regulated audit profession. However, it should be noted that tough regulations alone might not be the only solution for encouraging better audit practice in Malaysia. Possibly, focusing on a higher moral value in audit education and training could assist in ensuring high quality results in the audit profession.

The results of this dissertation raise questions about the robustness of regulatory oversight institutions operating within Malaysia, as well as the standard setting process itself. By definition, the objective of FRS is to achieve the maximum possible harmony and minimum possible variation in practice among reporting entities. Yet the distinctly poor compliance levels observed in relation to FRS 136 disclosures show that this result has not been achieved in Malaysia, at least in the first two years of adoption. Given that compliance with the accounting standards is mandated by law, evidence of non-compliance, coupled with a lack of evidence of obvious enforcement action represent a basis for substantial concern about the efficacy of the financial regulatory framework operating in Malaysia. Thus, it could be useful for the MASB to work with regulators, preparers and auditors to assist in the progress of the convergence plan, promoting IFRS education nationwide by working cooperatively with the MIA and the MICPA to improve awareness, assess readiness and provide training.

## 8.4 Limitations and Suggestions for Future Research

The results of this dissertation suggest that there is room, certainly in the Malaysian context, where the application of an impairment-based regime for goodwill accounting and reporting is still relatively novel, for further detailed research. This research covers only the first two years of IFRS implementation in Malaysia, and so is limited by the availability of information pertaining to IFRS implementation. Furthermore, the first few years of the transition may not be an accurate representation of the true level of compliance and disclosure quality with regard to IFRS-based reporting. The total impact of FRS 136 on companies' financial reports will take years to fully unfold, but given more years of financial statement data, it may be possible to look at the pattern of disclosure on the key assumption used for the purpose of impairment testing and find different results. Likewise, future research will be able to determine if the conclusions of this dissertation hold up over time.

The overall conclusion made with regard to goodwill impairment under the IFRS regime for Malaysian companies is materially blotted. It may be that it is simply an expression of a lack of experience in dealing with the new regime and that the non-compliance and poor disclosure quality observed in this research will improve over time. It has not been the focus of this dissertation to attempt to explain why there is high non-compliance and poor disclosure. Thus, there is scope in the future for researchers interested in this phenomenon to explore these questions in search of possible answers. For the present, the results of this dissertation stand alone and serve as a reminder for the auditor and regulator that although there exists a complex reporting standard on goodwill, it is well not to take it for granted.



## Appendix A

Companies with goodwill value representing less than 5% of total assets in 2006 and 2007.

### 2006

	Company	Industry	Goodwill as % of Total Assets
1	AHMAD ZAKI RES	Construction	0.80
2	AMWAY (MALAYSIA)	Trading	1.85
3	APEX EQUITY HOLDINGS	Financials	0.04
4	APP INDUSTRIES BHD	Consumer Products	3.75
5	ASAS DUNIA BERHAD	Properties	0.39
6	ASDION BERHAD	Technology	0.18
7	AV VENTURES CORP	Automotive and Chemicals	0.71
8	B.I.G. INDUSTRIES	Machinery and Equipment	0.62
9	BINAIK EQUITY BHD	Properties	0.19
10	BINTULU PORT	Trading	1.06
11	BIOSIS GROUP BERHAD	Consumer Products	0.01
12	BLD PLANTATION BHD	Plantation	0.01
13	BOON KOON GROUP	Automotive and Chemicals	0.71
14	BOUSTEAD HOLDINGS	Plantation	1.90
15	BOUSTEAD PROPERTIES	Properties	0.24
16	BSA INTERNATIONAL	Automotive and Chemicals	1.33
17	CAN-ONE BERHAD	Machinery and Equipment	0.61
18	CB IND PRODUCT HLDGS	Industrial Products	4.10
19	CBS TECHNOLOGY BHD	Technology	4.20
20	CHOO BEE METAL IND	Machinery and Equipment	0.34
21	CN ASIA CORP	Machinery and Equipment	0.27
22	CNI HOLDINGS BERHAD	Trading	0.0014

23	DAMANSARA REALTY BHD	Properties	0.04
24	DELLOYD VENTURES BHD	Automotive and Chemicals	3.03
25	DIJAYA CORPORATION	Properties	0.33
26	DIS TECH HLDGS BHD	Technology	0.05
27	DUFU TECHNOLOGY CORP	Electrical and Electronic	0.03
28	ECOFUTURE BERHAD	Food and Beverage	2.54
29	EFFICIENT E-SOL BHD	Electrical and Electronic	2.57
30	EMAS KIARA IND BHD	Industrial Products	2.58
31	EMIVEST BHD	Food and Beverage	1.66
32	ENG KAH CORPORATION	Consumer Products	0.02
33	ENGLOTECHS HOLDING	Industrial Products	0.34
34	ENVAIR HOLDING BHD	Trading	0.21
35	FAVELLE FAVCO BERHAD	Machinery and Equipment	0.13
36	GENTING BERHAD	Trading	0.32
37	GE-SHEN CORP BHD	Automotive and Chemicals	3.01
38	GHL SYSTEMS BERHAD	Technology	1.69
39	GREEN PACKET BERHAD	Utilities and Transportation	4.24
40	GUNUNG CAPITAL BHD	Industrial Products	1.81
41	HAISAN RESOURCES BHD	Trading	1.24
42	HEVEABOARD BERHAD	Industrial Products	0.67
43	HIL INDUSTRIES BHD	Industrial Products	0.33
44	HIROTAKO HLDGS BHD	Automotive and Chemicals	1.07
45	HO WAH GENTING BHD	Machinery and Equipment	0.14
46	HUAT LAI RESOURCES	Food and Beverage	0.0028
47	HUNZA CONSOLIDATION	Food and Beverage	0.27
48	INTELLIGENT EDGE TEC	Technology	1.59
49	ISS CONSULTING	Technology	1.88
50	KAMDAR GROUP (M) BHD	Trading	0.15
51	KBB RESOURCES BERHAD	Food and Beverage	1.41

52	KEN HOLDINGS BERHAD	Construction	0.37
53	KHIND HOLDINGS	Electrical and Electronic	1.38
54	KIM HIN INDUSTRY BHD	Construction	2.19
55	KNM GROUP BHD	Machinery and Equipment	0.44
56	KOSSAN RUBBER	Automotive and Chemicals	0.20
57	KRETAM HOLDINGS BHD	Plantation	2.20
58	KUB MALAYSIA BERHAD	Electrical and Electronic	3.06
59	KUMPULAN GUTHRIE BHD	Miscellaneous	2.91
60	LFE CORP BERHAD	Trading	0.30
61	LII HEN INDUSTRIES	Consumer Products	0.16
62	LINEAR CORP BHD	Electrical and Electronic	1.67
63	LOH & LOH CORP	Construction	0.08
64	LUSTER INDUSTRIES	Electrical and Electronic	3.43
65	LYSAGHT GALVANIZED	Machinery and Equipment	0.01
66	MAGNA PRIMA BERHAD	Construction	0.03
67	MAGNUM CORPORATION	Trading	1.29
68	MALAYAN UNITED INDS	Financials	2.71
69	MANGIUM INDUSTRIES	Trading	4.90
70	MECHMAR CORPORATION	Trading	0.51
71	MEDA INCORPORATED	Properties	0.11
72	MEGA FIRST CORP	Trading	1.14
73	MINPLY HOLDINGS	Construction	0.02
74	MQ TECHNOLOGY BHD	Construction	1.62
75	MUHIBBAH ENGINEERING	Electrical and Electronic	0.04
76	MWE HOLDINGS BERHAD	Consumer Products	3.76
77	NESTLE (MALAYSIA)	Food and Beverage	4.20
78	P.I.E. INDUSTRIAL	Electrical and Electronic	0.84
79	PACIFICMAS BHD	Financials	0.80
80	PAN MALAYSIA CAPITAL BERHAD	Financials	0.35

81	PASDEC HOLDINGS	Properties	0.35
82	PERAK CORP BHD	Trading	3.68
83	PETALING GARDEN BHD	Financials	0.66
84	PETRA PERDANA BERHAD	Miscellaneous	2.80
85	PILECON ENGINEERING	Electrical and Electronic	1.69
86	PLASTRADE TECH BHD	Automotive and Chemicals	3.54
87	PPB OIL PALMS BERHAD	Food and Beverage	2.28
88	PRESS METAL BERHAD	Machinery and Equipment	1.66
89	PRINSIPTEK CORP BHD	Construction	1.68
90	PUBLIC PACKAGES HLDG	Industrial Products	0.34
91	PULAI SPRINGS BHD	Trading	1.11
92	PW CONSOLIDATED BHD	Food and Beverage	2.06
93	RUBBEREX CORP	Industrial Products	1.50
94	SALCON BERHAD	Utilities and Transportation	3.41
95	SARAWAK OIL PALMS	Plantation	0.22
96	SERSOL TECH BHD	Automotive and Chemicals	0.58
97	SOUTH MALAYSIA	Financials	1.44
98	SURIA CAPITAL HLDGS	Miscellaneous	0.58
99	TA ANN HOLDINGS BHD	Plantation	0.42
100	TRACOMA HOLDINGS BHD	Automotive and Chemicals	0.08
101	TRADEWINDS (M) BHD	Food and Beverage	2.90
102	TRADEWINDS PLANT	Plantation	0.96
103	UDA HOLDINGS BHD	Construction	0.01
104	UEM BUILDERS BHD -	Construction	2.31
105	UNIMECH GROUP BHD	Trading	0.87
106	UNISEM (M) BERHAD	Electrical and Electronic	4.33
107	WARISAN TC	Trading	0.22
108	WHITE HORSE BERHAD	Construction	0.08
109	YEO HIAP SENG BHD	Food and Beverage	3.84

110	YNH PROPERTY BHD	Properties	2.67
111	YUNG KONG	Machinery and Equipment	0.34
112	ZECON BERHAD	Construction	0.86

**2007**

	<b>Company</b>	<b>Industry</b>	<b>Goodwill as % of Total Assets</b>
1	ADVENTA BERHAD	Industrial Products	1.04
2	AHMAD ZAKI RES	Construction	0.54
3	ALIRAN IHSAN RESRCS	Miscellaneous	2.27
4	AMINVESTMENT GRP BHD	Financials	0.55
5	AMMB HOLDINGS BERHAD	Financials	0.67
6	AMWAY (MALAYSIA)	Trading	1.62
7	APP INDUSTRIES BHD	Consumer Products	3.96
8	ASAS DUNIA BERHAD	Properties	0.38
9	ASDION BERHAD	Technology	0.14
10	ASTRO ALL ASIA NET	Trading	0.01
11	AV VENTURES CORP	Automotive and Chemicals	0.60
12	B.I.G. INDUSTRIES	Machinery and Equipment	0.57
13	BATU KAWAN BERHAD	Plantation	0.45
14	BINAIK EQUITY BHD	Properties	0.20
15	BLD PLANTATION BHD	Plantation	0.01
16	BOLTON BERHAD	Properties	0.22
17	BONIA CORPORATION	Consumer Products	2.10
18	BOON KOON GROUP	Automotive and Chemicals	0.44
19	BORNEO OIL BHD	Trading	0.02
20	BOUSTEAD PROPERTIES	Properties	0.997
21	BREM HOLDING BERHAD	Construction	1.66
22	BSA INTERNATIONAL	Automotive and Chemicals	1.21

23	BSL CORP BHD	Electrical and Electronic	3.39
24	CAB CAKARAN CORP BHD	Food and Beverage	2.87
25	CAN-ONE BERHAD	Machinery and Equipment	0.53
26	CB IND PRODUCT HLDGS	Industrial Products	3.34
27	CBS TECHNOLOGY BHD	Technology	3.04
28	CCK CONSOL	Food and Beverage	0.05
29	CENTURY BOND BERHAD	Industrial Products	0.26
30	CHIN FOH BERHAD	Machinery and Equipment	1.20
31	CHOO BEE METAL IND	Machinery and Equipment	0.27
32	CN ASIA CORP	Machinery and Equipment	0.24
33	CNI HOLDINGS BERHAD	Trading	0.0015
34	DAMANSARA REALTY BHD	Properties	0.21
35	DATAPREP HOLDINGS	Technology	3.26
36	DIJAYA CORPORATION	Properties	0.31
37	DIS TECH HLDGS BHD	Technology	2.17
38	DOMINANT ENTERPRISE	Construction	0.54
39	DRB-HICOM BERHAD	Industrial Products	0.06
40	DUFU TECHNOLOGY CORP	Electrical and Electronic	0.02
41	DXN HOLDINGS BHD	Consumer Products	0.64
42	ECOFIRST CONSO BHD	Trading	0.14
43	ECOFUTURE BERHAD	Food and Beverage	2.22
44	EDEN INC. BERHAD	Miscellaneous	0.65
45	EFFICIENT E-SOL BHD	Electrical and Electronic	1.89
46	EKSONS CORP BHD	Construction	3.52
47	EMAS KIARA IND BHD	Industrial Products	2.14
48	EMIVEST BHD	Food and Beverage	1.50
49	ENGLOTECHS HOLDING	Industrial Products	0.32
50	EQUINE CAPITAL BHD	Properties	1.02
51	FAVELLE FAVCO BERHAD	Machinery and Equipment	0.11

52	FIAMMA HOLDINGS BHD	Electrical and Electronic	0.33
53	FLONIC HI-TEC BHD	Machinery and Equipment	0.90
54	FORMOSA PROSONIC IND	Electrical and Electronic	0.43
55	FOTRONICS CORP BHD	Technology	0.0021
56	FREIGHT MNGT HLDGS	Utilities and Transportation	1.43
57	GD EXP CARRIER BHD	Utilities and Transportation	0.30
58	GE-SHEN CORP BHD	Automotive and Chemicals	2.92
59	GHL SYSTEMS BERHAD	Technology	1.71
60	GRAND HOOVER BERHAD	Construction	1.98
61	GREEN PACKET BERHAD	Utilities and Transportation	2.52
62	GUNUNG CAPITAL BHD	Industrial Products	1.88
63	HAI-O ENTERPRISE BHD	Trading	0.18
64	HAISAN RESOURCES BHD	Trading	2.53
65	HAP SENG CONSOLIDATE	Machinery and Equipment	0.0009
66	HEVEABOARD BERHAD	Industrial Products	0.66
67	HEXAGON HOLDINGS	Trading	0.67
68	HEXZA CORP BHD	Industrial Products	1.06
69	HIL INDUSTRIES BHD	Industrial Products	1.75
70	HIROTA KO HLDGS BHD	Automotive and Chemicals	0.99
71	HO WAH GENTING BHD	Machinery and Equipment	0.12
72	HOVID BERHAD	Consumer Products	1.74
73	HUA YANG BHD	Properties	4.65
74	HUNZA CONSOLIDATION	Food and Beverage	0.29
75	IJM CORPORATION BHD	Construction	1.00
76	INIX TECH HLDGS	Technology	0.02
77	INS BIOSCIENCE BHD	Technology	4.78
78	INSAS BERHAD	Consumer Products	0.15
79	INTELLIGENT EDGE TEC	Technology	0.83
80	IPMUDA BERHAD	Miscellaneous	0.23

81	ISYODA CORPORATION	Construction	0.01
82	JOHN MASTER	Consumer Products	1.50
83	KAMDAR GROUP (M) BHD	Trading	0.15
84	KARAMBUNAI CORP	Properties	0.99
85	KAWAN FOOD BERHAD	Food and Beverage	0.27
86	KEN HOLDINGS BERHAD	Construction	0.13
87	KENCANA PETROL	Trading	4.16
88	KHIND HOLDINGS	Electrical and Electronic	1.68
89	KIM HIN INDUSTRY BHD	Construction	2.21
90	KNM GROUP BHD	Machinery and Equipment	0.55
91	KOMARKCORP BERHAD	Industrial Products	0.80
92	KOSSAN RUBBER	Automotive and Chemicals	0.16
93	KRETAM HOLDINGS BHD	Plantation	2.17
94	KUALA LUMPUR KEPONG	Plantation	3.78
95	KUMPULAN EUROPLUS	Construction	2.25
96	KYM HOLDINGS BHD	Industrial Products	1.57
97	LAY HONG BERHAD	Food and Beverage	0.79
98	LINEAR CORP BHD	Electrical and Electronic	0.04
99	LION FOREST IND	Trading	0.02
100	LOH & LOH CORP	Construction	0.06
101	LONDON BISCUITS BHD	Food and Beverage	1.05
102	LYSAGHT GALVANIZED	Machinery and Equipment	0.01
103	MAJUPERAK HOLDINGS	Properties	3.20
104	MECHMAR CORPORATION	Trading	0.49
105	MEDA INCORPORATED	Properties	0.13
106	MEGA FIRST CORP	Trading	1.51
107	METACORP BERHAD	Trading	0.05
108	METRO KAJANG HLDGS	Properties	0.0040
109	MINPLY HOLDINGS	Construction	2.24



110	MQ TECHNOLOGY BHD	Construction	1.36
111	MUHIBBAH ENGINEERING	Electrical and Electronic	0.03
112	MUTIARA GOODYEAR	Properties	0.45
113	MWE HOLDINGS BERHAD	Consumer Products	3.34
114	NAGAMAS INT	Miscellaneous	3.11
115	NESTLE (MALAYSIA)	Food and Beverage	3.81
116	NEXTNATION COMMN	Technology	1.42
117	NOMAD GROUP	Financials	1.24
118	OGAWA WORLD BHD	Machinery and Equipment	0.31
119	P.I.E. INDUSTRIAL	Electrical and Electronic	0.72
120	PACIFIC & ORIENT BHD	Financials	0.30
121	PACIFICMAS BHD	Financials	0.93
122	PAN MALAYSIA CAPITAL BERHAD	Financials	0.34
123	PASDEC HOLDINGS	Properties	0.16
124	PDZ HOLDINGS BHD	Utilities and Transportation	0.01
125	PELANGI PUBLISHING	Industrial Products	0.39
126	PEMBINAAN LIMBO	Plantation	0.81
127	PENSONIC HOLDINGS	Electrical and Electronic	0.33
128	PERAK CORP BHD	Trading	3.77
129	PERISAI PETROLEUM	Industrial Products	0.04
130	PETRA PERDANA BERHAD	Miscellaneous	1.77
131	PETRONAS DAGANGAN	Utilities and Transportation	0.38
132	PILECON ENGINEERING	Electrical and Electronic	1.79
133	PLANT OFFSHORE	Construction	1.17
134	PLASTRADE TECH BHD	Automotive and Chemicals	2.96
135	PLENITUDE BERHAD	Properties	0.38
136	POH HUAT RES HLDGS	Consumer Products	0.11
137	POLY TOWER VENTURES	Miscellaneous	0.06
138	PRINSIPTEK CORP BHD	Construction	1.63

139	PROTASCO BHD	Construction	0.05
140	PROTON HOLDINGS BHD	Consumer Products	0.42
141	PUBLIC PACKAGES HLDG	Industrial Products	0.34
142	PULAI SPRINGS BHD	Trading	1.01
143	PW CONSOLIDATED BHD	Food and Beverage	1.75
144	QL RESOURCES BHD	Food and Beverage	0.43
145	QUALITY CONCRETE	Construction	0.46
146	RANHILL POWER BHD	Electrical and Electronic	0.44
147	RANHILL UTILITIES	Utilities and Transportation	0.03
148	RCE CAPITAL BHD	Financials	4.17
149	RELIANCE PACIFIC BHD	Utilities and Transportation	1.41
150	RHYTHM CONSOLIDATE	Miscellaneous	1.47
151	RUBBEREX CORP	Industrial Products	1.16
152	SALCON BERHAD	Utilities and Transportation	0.75
153	SANICHI TECH	Machinery and Equipment	0.01
154	SAPURA RESOURCES BHD	Properties	0.78
155	SARAWAK OIL PALMS	Plantation	0.17
156	SATANG HOLDINGS BHD	Trading	0.26
157	SCIENTEX BERHAD	Miscellaneous	0.28
158	SEE HUP CONSOL	Utilities and Transportation	3.78
159	SERN KOU RESRCS BHD	Consumer Products	2.48
160	SHH RESOURCES HLDGS	Construction	0.87
161	SHL CONSOLIDATED BHD	Properties	0.53
162	SIME DARBY BHD	Trading	0.02
163	SIME ENGINEERING SVC	Trading	2.87
164	SLP RESOURCES BERHAD	Industrial Products	0.01
165	SMIS CORPORATION BHD	Automotive and Chemicals	1.85
166	SOUTH MALAYSIA	Financials	1.22
167	SPRITZER BERHAD	Food and Beverage	0.02

168	SUBUR TIASA HOLDINGS	Industrial Products	0.34
169	SUCCESS TRANSFORMER	Miscellaneous	3.14
170	SURIA CAPITAL HLDGS	Miscellaneous	0.46
171	TALIWORKS CORP	Utilities and Transportation	0.33
172	TAMADAM BONDED	Trading	0.18
173	TASEK CORPORATION	Industrial Products	0.13
174	TECHNODEX BHD	Technology	4.95
175	TEO GUAN LEE CORP	Consumer Products	0.02
176	TEX CYCLE TECH	Miscellaneous	1.78
177	TOYO INK GROUP BHD	Industrial Products	0.14
178	TRACOMA HOLDINGS BHD	Automotive and Chemicals	0.09
179	TRADEWINDS (M) BHD	Food and Beverage	2.94
180	TRADEWINDS PLANT	Plantation	0.94
181	UEM BUILDERS BHD	Construction	2.07
182	UNIMECH GROUP BHD	Trading	2.15
183	UNITED MALACCA BHD	Plantation	2.94
184	WEIDA (M) BERHAD	Machinery and Equipment	0.49
185	WHITE HORSE BERHAD	Construction	0.09
186	Y.S.P. SOUTHEAST	Consumer Products	0.04
187	YEO HIAP SENG BHD	Food and Beverage	4.00
188	YNH PROPERTY BHD	Properties	1.89
189	YTL CEMENT BERHAD	Industrial Products	0.42
190	YTL LAND & DEV BHD	Properties	1.28
191	YTL POWER INT'L BHD	Utilities and Transportation	1.84
192	YUNG KONG	Machinery and Equipment	0.28
193	ZECON BERHAD	Construction	0.79

## Appendix B

List of companies with a material goodwill value as a percentage of total assets in 2006 and 2007.

### 2006

	Company	Industry	Goodwill as % of Total Assets
1	BRITISH AMER TOBACCO	Consumer Products	25.47
2	COMPUGATES HLDGS	Electrical and Electronic	49.98
3	CUSCAPI BERHAD	Electrical and Electronic	20.59
4	IRIS CORPORATION	Technology	24.69
5	KPS CONSORTIUM BHD	Trading	20.78
6	LIQUA HEALTH CORP	Automotive and Chemicals	25.68
7	MAXBIZ CORPORATION	Consumer Products	33.08
8	M-MODE BERHAD	Miscellaneous	28.69
9	PAXELEN CORP BHD	Machinery and Equipment	25.86
10	SCOMI ENGINEERING	Electrical and Electronic	34.24
11	SCOMI MARINE BHD	Miscellaneous	25.63
12	SMR TECHNOLOGIES BHD	Technology	22.50
13	TIME DOTCOM BHD	Utilities and Transportation	25.88
14	VERSATILE CREATIVE	Industrial Products	20.07
15	VTI VINTAGE BERHAD	Construction	23.96

### 2007

	Company	Industry	Goodwill as % of Total Assets
1	BRITISH AMER TOBACCO	Consumer Products	28.54
2	C.I. HOLDINGS BERHAD	Construction	21.07

3	COMPUGATES HLDGS	Electrical and Electronic	48.36
4	FORMIS RESOURCES BHD	Technology	29.27
5	HARBOUR-LINK GROUP	Utilities and Transportation	31.01
6	INTEGRATED RUBBER	Machinery and Equipment	25.80
7	IRIS CORPORATION	Technology	25.43
8	ISS CONSULTING	Technology	24.77
9	JAKS RESRCS BHD	Construction	32.43
10	KPS CONSORTIUM BHD	Trading	20.23
11	MAXBIZ CORPORATION	Consumer Products	25.22
12	M-MODE BERHAD	Miscellaneous	23.28
13	MULTI-PURPOSE HLDGS	Financials	21.33
14	NARRA INDUSTRIES BHD	Miscellaneous	45.12
15	PATIMAS COMPUTERS	Technology	20.19
16	SCOMI ENGINEERING	Electrical and Electronic	35.88
17	SITT TATT BERHAD	Industrial Products	31.65
18	VTI VINTAGE BERHAD	Construction	25.50

## Appendix C

List of companies with goodwill value represent below 5% of total assets in 2006 and 2007.

### 2006

	Company	Auditor	Goodwill as % of Total Assets
1	LYSAGHT GALVANIZED	E&Y	0.01
2	DUFU TECHNOLOGY CORP	DELOITTE	0.03
3	DAMANSARA REALTY BHD	E&Y	0.04
4	MUHIBBAH ENGINEERING	KPMG	0.04
5	LOH & LOH CORP	PWC	0.08
6	WHITE HORSE BERHAD	E&Y	0.08
7	FAVELLE FAVCO BERHAD	KPMG	0.13
8	ASDION BERHAD	E&Y	0.18
9	BINAIK EQUITY BHD	E&Y	0.19
10	WARISAN TC	KPMG	0.22
11	SARAWAK OIL PALMS	E&Y	0.22
12	BOUSTEAD PROPERTIES	E&Y	0.24
13	HUNZA CONSOLIDATION	DELOITTE	0.27
14	LFE CORP BERHAD	KPMG	0.30
15	GENTING BERHAD	PWC	0.32
16	DIJAYA CORPORATION	E&Y	0.33
17	CHOO BEE METAL IND	DELOITTE	0.34
18	YUNG KONG	KPMG	0.34
19	KEN HOLDINGS BERHAD	KPMG	0.37
20	ASAS DUNIA BERHAD	KPMG	0.39
21	TA ANN HOLDINGS BHD	KPMG	0.42
22	KNM GROUP BHD	KPMG	0.44
23	MECHMAR CORPORATION	DELOITTE	0.51
24	SURIA CAPITAL HLDGS	E&Y	0.58
25	CAN-ONE BERHAD	KPMG	0.61
26	B.I.G. INDUSTRIES	E&Y	0.62
27	AV VENTURES CORP	KPMG	0.71
28	PACIFICMAS BHD	E&Y	0.80
29	P.I.E. INDUSTRIAL	DELOITTE	0.84
30	ZECON BERHAD	E&Y	0.86
31	BINTULU PORT	E&Y	1.06
32	HIROTAKO HLDGS BHD	KPMG	1.07
33	MAGNUM CORPORATION	E&Y	1.29
34	BSA INTERNATIONAL	E&Y	1.33

35	KHIND HOLDINGS	KPMG	1.38
36	SOUTH MALAYSIA	PWC	1.44
37	RUBBEREX CORP	DELOITTE	1.50
38	EMIVEST BHD	DELOITTE	1.66
39	PRESS METAL BERHAD	KPMG	1.66
40	LINEAR CORP BHD	DELOITTE	1.67
41	AMWAY (MALAYSIA)	KPMG	1.85
42	BOUSTEAD HOLDINGS	E&Y	1.90
43	KIM HIN INDUSTRY BHD	KPMG	2.19
44	KRETAM HOLDINGS BHD	E&Y	2.20
45	PPB OIL PALMS BERHAD	E&Y	2.28
46	UEM BUILDERS BHD	E&Y	2.31
47	YNH PROPERTY BHD	E&Y	2.67
48	KUMPULAN GUTHRIE BHD	E&Y	2.91
49	KUB MALAYSIA BERHAD	KPMG	3.06
50	SALCON BERHAD	KPMG	3.41
51	LUSTER INDUSTRIES	KPMG	3.43
52	PERAK CORP BHD	E&Y	3.68
53	YEO HIAP SENG BHD	PWC	3.84
54	NESTLE (MALAYSIA)	KPMG	4.20
55	UNISEM (M) BERHAD	DELOITTE	4.33

**2007**

	<b>Company</b>	<b>Auditor</b>	<b>Goodwill as % of Total Assets</b>
1	HAP SENG CONSOLIDATE	E&Y	0.00
2	LYSAGHT GALVANIZED	E&Y	0.01
3	SLP RESOURCES BERHAD	KPMG	0.01
4	ASTRO ALL ASIA NET	PWC	0.01
5	PDZ HOLDINGS BHD	PWC	0.01
6	DUFU TECHNOLOGY CORP	DELOITTE	0.02
7	LION FOREST IND	DELOITTE	0.02
8	SPRITZER BERHAD	DELOITTE	0.02
9	SIME DARBY BHD	PWC	0.02
10	MUHIBBAH ENGINEERING	KPMG	0.03
11	RANHILL UTILITIES	PWC	0.03
12	METACORP BERHAD	E&Y	0.05
13	DRB-HICOM BERHAD	PWC	0.06
14	LOH & LOH CORP	PWC	0.06
15	WHITE HORSE BERHAD	E&Y	0.09

16	FAVELLE FAVCO BERHAD	KPMG	0.11
17	KEN HOLDINGS BERHAD	KPMG	0.13
18	TASEK CORPORATION	KPMG	0.13
19	ASDION BERHAD	E&Y	0.14
20	KOSSAN RUBBER	KPMG	0.16
21	SARAWAK OIL PALMS	E&Y	0.17
22	BINAIK EQUITY BHD	E&Y	0.20
23	DAMANSARA REALTY BHD	E&Y	0.21
24	BOLTON BERHAD	E&Y	0.22
25	CENTURY BOND BERHAD	KPMG	0.26
26	CHOO BEE METAL IND	DELOITTE	0.27
27	KAWAN FOOD BERHAD	KPMG	0.27
28	SCIENTEX BERHAD	E&Y	0.28
29	YUNG KONG	KPMG	0.28
30	HUNZA CONSOLIDATION	DELOITTE	0.29
31	GD EXP CARRIER BHD	DELOITTE	0.30
32	PACIFIC & ORIENT BHD	E&Y	0.3
33	OGAWA WORLD BHD	DELOITTE	0.31
34	DIJAYA CORPORATION	E&Y	0.31
35	FIAMMA HOLDINGS BHD	KPMG	0.33
36	TALIWORKS CORP	PWC	0.33
37	SUBUR TIASA HOLDINGS	E&Y	0.34
38	PLENITUDE BERHAD	DELOITTE	0.38
39	ASAS DUNIA BERHAD	KPMG	0.38
40	PETRONAS DAGANGAN	KPMG	0.38
41	PELANGI PUBLISHING	E&Y	0.39
42	PROTON HOLDINGS BHD	PWC	0.42
43	QL RESOURCES BHD	KPMG	0.43
44	RANHILL POWER BHD	PWC	0.44
45	BATU KAWAN BERHAD	E&Y	0.45
46	MUTIARA GOODYEAR	KPMG	0.45
47	SURIA CAPITAL HLDGS	E&Y	0.46
48	QUALITY CONCRETE	E&Y	0.46
49	MECHMAR CORPORATION	DELOITTE	0.49
50	WEIDA (M) BERHAD	KPMG	0.49
51	CAN-ONE BERHAD	KPMG	0.53
52	DOMINANT ENTERPRISE	DELOITTE	0.54
53	AMINVESTMENT GRP BHD	E&Y	0.55
54	KNM GROUP BHD	KPMG	0.55
55	B.I.G. INDUSTRIES	E&Y	0.57
56	AV VENTURES CORP	KPMG	0.60



57	DXN HOLDINGS BHD	KPMG	0.64
58	EDEN INC. BERHAD	E&Y	0.65
59	AMMB HOLDINGS BERHAD	E&Y	0.67
60	P.I.E. INDUSTRIAL	DELOITTE	0.72
61	SALCON BERHAD	KPMG	0.75
62	SAPURA RESOURCES BHD	E&Y	0.78
63	ZECON BERHAD	E&Y	0.79
64	LAY HONG BERHAD	E&Y	0.79
65	PEMBINAAN LIMBO	KPMG	0.81
66	PACIFICMAS BHD	E&Y	0.93
67	HIROTAKO HLDGS BHD	KPMG	0.99
68	BOUSTEAD PROPERTIES	E&Y	1.00
69	IJM CORPORATION BHD	PWC	1.00
70	HEXZA CORP BHD	DELOITTE	1.06
71	RUBBEREX CORP	DELOITTE	1.16
72	CHIN FOH BERHAD	DELOITTE	1.20
73	BSA INTERNATIONAL	E&Y	1.21
74	SOUTH MALAYSIA	PWC	1.22
75	NOMAD GROUP	DELOITTE	1.24
76	YTL LAND & DEV BHD	E&Y	1.28
77	EMIVEST BHD	KPMG	1.50
78	AMWAY (MALAYSIA)	E&Y	1.62
79	KHIND HOLDINGS	KPMG	1.68
80	HOVID BERHAD	KPMG	1.74
81	TEX CYCLE TECH	DELOITTE	1.78
82	YTL POWER INT'L BHD	PWC	1.84
83	SMIS CORPORATION BHD	KPMG	1.85
84	YNH PROPERTY BHD	E&Y	1.89
85	UEM BUILDERS BHD	E&Y	2.07
86	KRETAM HOLDINGS BHD	E&Y	2.17
87	KIM HIN INDUSTRY BHD	KPMG	2.21
88	KUMPULAN EUROPLUS	DELOITTE	2.25
89	CAB CAKARAN CORP BHD	DELOITTE	2.87
90	SIME ENGINEERING SVC	PWC	2.87
91	UNITED MALACCA BHD	E&Y	2.94
92	DATAPREP HOLDINGS	E&Y	3.26
93	BSL CORP BHD	DELOITTE	3.39
94	EKSONS CORP BHD	E&Y	3.52
95	PERAK CORP BHD	E&Y	3.77
96	KUALA LUMPUR KEPONG	KPMG	3.78
97	SEE HUP CONSOL	KPMG	3.78

98	NESTLE (MALAYSIA)	KPMG	3.81
99	YEO HIAP SENG BHD	PWC	4
100	KENCANA PETROL	KPMG	4.16
101	RCE CAPITAL BHD	DELOITTE	4.17
102	HUA YANG BHD	E&Y	4.65

## REFERENCES

- Abdelsalam, O. H. & Weetman, P., (2007), "Measuring Accounting Disclosure in a Period of Complex Changes: The Case of Egypt", *Advances in International Accounting*, vol. 20, pp. 75-104.
- Ahmad, J. H., Ishak, R. & Abdullah, S. N., (2003), "Accounting Treatment for Goodwill among Malaysian KLSE Main Board Companies: The Case of MAS 6 and MASB ED 28", *Working Paper 4/2003*, Universiti Utara Malaysia, Malaysia.
- Al-Akra, M., Eddie, I. A. & Ali, M. J., (2010), "The Influence of the Introduction of Accounting Disclosure Regulation on Mandatory Disclosure Compliance: Evidence from Jordan", *The British Accounting Review*, vol. 42, no. 3, pp. 170-86.
- Anantharaman, D., (2007), "Has SFAS 142 Diminished the Reliability of Goodwill Writeoffs?" *Working Paper*, Columbia Business School, New York.
- Antle, R. & Nalebuff, B., (1991), "Conservatism and Auditor-Client Negotiations", *Journal of Accounting Research*, vol. 29 Supplement, pp. 31-54.
- Archer, S., (1976), "Purchased Goodwill - Let's Think Again", *Accountancy*, vol. January, pp. 42-43.
- Armstrong, C. S., Barth, M. E., Jagolinzer, A. D. & Riedl, E. J., (2010), "Market Reaction to the Adoption of IFRS in Europe", *The Accounting Review*, vol. 85, no. 1, pp. 31-61.
- Ball, R., Robin, A. & Wu, J. S., (2003), "Incentives versus Standards: Properties of Accounting Income in Four East Asian Countries, and Implications for Acceptance of IAS", *Journal of Accounting and Economics*, vol. 36, no. 1-3, pp. 235-70.
- Balvers, R. J., McDonald, B. & Miller, R. E., (1988), "Underpricing of New Issues and the Choice of Auditor as a Signal of Investment Banker Reputation", *The Accounting Review*, vol. 63, no. 4, pp. 605-622.
- Bancel, F. & Mittoo, U. R., (2003), "The Determinants of Capital Structure Choice: A Survey of European Firms", *SSRN*, [ssrn.com/abstract=299172](http://ssrn.com/abstract=299172).
- Barlev, B., (1973), "Business Combinations and the Creation of Goodwill", *Accounting and Business Research*, vol. Autumn, no. 12, pp. 304-08.

- Beatty, A. & Weber, J., (2006), "Accounting Discretion in Fair Value Estimates: An Examination of SFAS 142 Goodwill Impairments", *Journal of Accounting Research*, vol. 44, no. 2, pp. 257-88.
- Becker, C. L., Defond, M. L., Jiambalvo, J. & Subramanyam, K. R., (1998), "The Effect of Audit Quality on Earnings Management", *Contemporary Accounting Research*, vol. 15, no. 1, pp. 1-24.
- Bedford, N. M. & Burton, E. J., (1977), Goodwill, in Davidson, S. & Weil, R. L. (eds.), *Handbook of Modern Accounting*, Second edition, McGraw Hill, New York.
- Bens, D. A. & Monahan, S. J., (2004), "Disclosure Quality and the Excess Value of Diversification", *Journal of Accounting Research*, vol. 42, no. 4, pp. 691-730.
- Bentley, H. C., (1911), *The Science of Accounting*, The Ronald Press Company, New York.
- Beresford, D. R. & Moseley, R. H., (1983), Goodwill and Other Intangibles, in Davidson, S. & Weil, R. L. (eds.), *Handbook of Modern Accounting*, Third edition, McGraw Hill, New York.
- Berger, P. G. & Hann, R. N., (2007), "Segment Profitability and the Proprietary and Agency Costs of Disclosure", *The Accounting Review*, vol. 82, pp. 969-06.
- Bierman, H., (1993), "Capital Budgeting in 1992: A Survey", *Financial Management*, vol. 22, pp. 24.
- Bloom, M., (2008), *Double Accounting for Goodwill: A Problem Redefined*, Routledge, London.
- Bonbright, J. C., (1937), *The Valuation of Property: A Treatise on the Appraisal of Property for Different Legal Purposes* McGraw Hill, New York.
- Bourne, J. H., (1888), "Goodwill", *The Accountants' Journal*, vol. October, no. 10, pp. 107-08.
- Bradshaw, M. T., Richardson, S. A. & Sloan, R. G., (2001), "Do Analysts and Auditors Use information in Accruals?" *Journal of Accounting Research*, vol. 39, no. 1, pp. 45-73.
- Brealey, R. A. & Myers, S. C., (2000), *Principles of Corporate Finance*, Irwin McGraw-Hill, New York.
- Briloff, A., (2004), "Accounting Scholars in the Groves of Academe In Pari Delicto", *Critical Perspectives on Accounting*, vol. 15, pp. 787-96.
- Browne, E. A., (1902), "Goodwill: Its Ascertainment and Treatment in Accounts", *The Accountant*, vol. 28, December, pp. 1339-1344.

- Bryer, R. A., (1995), "A Political Economy of SSAP 22: Accounting for Goodwill", *The British Accounting Review*, vol. 27, no. 4, pp. 283-310.
- Bunea-Bontas, C. A. & Petre, M. C., (2009), "Issues on Recognition, Measurement and Impairment of Goodwill", *Annals-Economic Science Series*, vol. XV, pp. 238-44.
- Caneghem, T. V., (2004), "The Impact of Audit Quality on Earnings Rounding-up Behaviour: Some UK Evidence", *European Accounting Review*, vol. 13, no. 4, pp. 771-86.
- Canning, J., (1929), *The Economics of Accountancy*, The Ronald Press Company, New York.
- Carlin, T. M. & Finch, N., (2009), "Discount Rates in Disarray: Evidence on Flawed Goodwill Impairment Testing", *Australian Accounting Review*, vol. 19, no. 4, pp. 326-36.
- Carlin, T. M. & Finch, N., (2010), "Resisting Compliance with IFRS Goodwill Accounting and Reporting Disclosures: Evidence from Australia", *Journal of Accounting & Organizational Change*, vol. 6, no. 2, pp. 260-80.
- Carlin, T. M., Finch, N. & Laili, N. H., (2009a), "Goodwill Accounting in Malaysia and the Transition to IFRS – A Compliance Assessment of Large First Year Adopters", *Journal of Financial Reporting & Accounting*, vol. 7, no. 1, pp. 75-104.
- Carlin, T. M., Finch, N. & Laili, N. H., (2009b), "Investigating Audit Quality among Big 4 Malaysian Firms", *Asian Review of Accounting*, vol. 17, no. 2, pp. 96 - 114.
- Carlin, T. M., Finch, N. & Tran, D. M., (2010b), "IFRS Compliance in the Year of the Pig: The Practice of Goodwill Impairment Testing among Large Hong Kong Firms During 2007", *SSRN*, [papers.ssrn.com/sol3/papers.cfm?abstract\\_id=1552703](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1552703).
- Carlin, T. M., Khairi, K. F. & Finch, N., (2010a), "FRS36 and Post-transition Compliance Quality among Singapore Firms", *Asian Review of Accounting*, vol. 18, no. 3, pp. 221-44.
- Carnegie, G. D., (1987), *Accounting for Goodwill on Consolidation*, Deakin University, Geelong.
- Carnegie, G. D. & Gibson, R. W., (1987), "Accounting for Goodwill on Consolidation Before and After AAS 18", *Accounting & Finance*, vol. 27, no. 2, pp. 35-51.
- Carsberg, B. V., (1966), "The Contribution of P. D. Leake to the Theory of Goodwill Valuation", *Journal of Accounting Research*, vol. 4, no. 1, pp. 1-15.
- Carlsaw, C., (1982), "A Further Side to the Goodwill Question", *The Accountant's Journal*, vol. October, 361-362.

- Catlett, G. R. & Olson, N. O., (1968), *Accounting for Goodwill: Accounting Research Study no. 10*, American Institute of Certified Public Accountants New York.
- Chaney, P. K. & Philipich, K. L., (2002), "Shredded Reputation: The Cost of Audit Failure", *Journal of Accounting Research*, vol. 40, no. 2, pp. 1221-45.
- Chen, C., Kohlbeck, M. J. & Warfield, T., (2004), *Goodwill Valuation Effects of the Initial Adoption of SFAS 142*, Working Paper, University of Wisconsin.
- Chen, K. Y., Lin, K.-L. & Zhou, J., (2005), "Audit Quality and Earnings Management for Taiwan IPO Firms", *Managerial Auditing Journal*, vol. 20, no. 1, pp. 86-104.
- Choi, F. D. S. & Changwoo, L., (1991), "Merger Premia and National Differences in Accounting for Goodwill", *Journal of International Financial Management & Accounting*, vol. 3, no. 3, pp. 219-40.
- Choi, F. D. S. & Meek, G. K., (2005), *International Accounting ( 5th ed. )*, Prentice Hall, Upper Saddle River, NJ.
- Christensen, H. B., Lee, E. & Walker, M., (2007), "Incentives or Standards: What Determines Accounting Quality Changes Around IFRS Adoption?" *Manchester Business School*, [ssrn.com/abstract=1013054](http://ssrn.com/abstract=1013054).
- Clarke, F. L., Dean, G. W. & Kyle, O., (1997), *Corporate Collapse – Regulatory, Accounting and Ethical Failure*, Cambridge University Press, Cambridge.
- Colbert, G. & Murray, D., (1998), "The Association between Auditor Quality and Auditor Size: An Analysis of Small CPA Firms", *Journal of Accounting, Auditing and Finance*, vol. 13, no. 2, pp. 135-50.
- Conigliaro, R. & Rudman, D., (2002), "Rules on Accounting for Goodwill Revised", [grassicpas.com/pdf/NYLI\\_5\\_28\\_02.pdf](http://grassicpas.com/pdf/NYLI_5_28_02.pdf).
- Courtis, J. K., (1983), "Business Goodwill: Conceptual Clarification via Accounting, Legal and Etymological Perspectives", *Accounting Historians Journal*, vol. 10, no. 2, pp. 1-38.
- Craswell, A. T., Francis, J. R. & Taylor, S. L., (1995), "Auditor Brand Name Reputations and Industry Specialisations", *Journal of Accounting and Economics*, vol. 20, no. 3, pp. 297-322.
- Craswell, A. T. & Taylor, S. L., (1992), "Discretionary Disclosure of Reserves by Oil and Gas Companies: An Economic Analysis", *Journal of Business Finance and Accounting*, vol. 19, no. 2, pp. 295-308.

- Dagwell, R., Windsor, C. & Wines, G., (2004), "The Proposed Goodwill Impairment Test - Implications for Preparers, Auditors and Corporate Governance", *Griffith Business School*, 4th One Day Symposium on Accountability, Governance and Performance in Transition, Australia.
- Damodaran, A., (2009), "Equity Risk Premiums (ERP): Determinants, Estimation and Implications - A Post-crisis Update", *SSRN*, [papers.ssrn.com/sol3/papers.cfm?abstract\\_id=1492717](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1492717).
- Dang, L., (2004), *Assessing Actual Audit Quality*, Drexel University, Philadelphia.
- Davidson, R. A. & Neu, D., (1993), "A Note on Association Between Audit Firm Size and Audit Quality", *Contemporary Accounting Research*, vol. 9, no. 2, pp. 479-88.
- Dawson, W. J., (1903), "Goodwill", *Encyclopaedia of Accounting*, vol. 3, pp. 196-207.
- Deangelo, L. E., (1981), "Auditor Size and Auditor Quality", *Journal of Accounting and Economics*, vol. 3, pp. 183-99.
- Defond, M. L. & Jiambalvo, J., (1991), "Incidence and Circumstances of Accounting Errors", *The Accounting Review*, vol. 66, no.3, pp. 643-55.
- Defond, M. L. & Jiambalvo, J., (1993), "Factors Related to Auditor - client Disagreement Over Income-Increasing Accounting Methods", *Contemporary Accounting Research*, vol. 9, pp. 415-31.
- Dicksee, L. R., (1897), "Goodwill and its Treatment in Accounts", *The Accountant*, vol. 23, no. 9, pp. 40-8.
- Dicksee, L. R., (1906), *Goodwill and its Treatment in Accounts*, Gee, London.
- Dicksee, L. R. & Tillyard, F., (1906), *Goodwill and its Treatment in Accounts*, Arno Press, New York.
- Dopuch, N., (1984), "Capital Markets' Reaction to Qualified Audit Reports", *Journal of Accounting and Economics*, vol. 6, no. 1, pp. 3.
- Dye, R. A., (1993), "Auditing Standards, Legal Liability and Auditor Wealth", *Journal of Political Economy*, vol. 101, no. 5, pp. 887-914.
- Eisenberg, T. & Macey, J. R., (2003), "Was Arthur Andersen Different? An Empirical Examination of Major Accounting Firms' Audit of Large Clients", *Journal of Empirical Legal Studies*, vol. 1, pp. 263-300.

- Ettredge, M. & Smith, D., (2002), "Competitive Harm and Companies' Positions on SFAS No. 131", *Journal of Accounting Auditing and Finance*, vol. 17, no. 2, pp. 93-110.
- Fah, F. Y., (2006), *Understanding Fair Value Accounting*, New Straits Times, Kuala Lumpur, 22 July 2006.
- Falk, H. & Gordon, L. A., (1977), "Imperfect Markets and the Nature of Goodwill", *Journal of Business Finance and Accounting*, vol. 4, no. 4, pp. 443-62.
- Fama, E. & French, K., (1997), "Industry Costs of Equity", *Journal of Financial Economics*, vol. 43, pp. 153-193.
- Fekete, S., Matis, D. & Lukács, J., (2008), "Factors Influencing the Extent of Corporate Compliance with IFRS. The Case of Hungarian Listed Companies", *SSRN*, [papers.ssrn.com/sol3/papers.cfm?abstract\\_id=1295722](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1295722).
- Finch, N., (2010), *Goodwill Impairment Testing in Australia: A Compliance Study of IFRS Disclosures*, The University of Sydney, Sydney, Australia.
- Firth, M. & Smith, A., (1992), "Selection of Auditor Firms by Companies in the New Issue Market", *Applied Economics*, vol. 24, pp. 247-55.
- Firth, M. A., (1979), "The Impact of Size, Stock Market Listing, and Auditors on Voluntary Disclosure in Corporate Annual Reports", *Accounting and Business Research*, vol. Autumn, pp. 273-80.
- Francis, J. R., (1984), "The Effect of Audit Firm Size on Audit Prices A Study of the Australian Market", *Journal of Accounting and Economics*, vol. 6, pp. 133-51.
- Francis, J. R., (2004), "What Do We Know About Audit Quality?" *The British Accounting Review*, vol. 34, no. 4, pp. 345-68.
- Francis, J. R., Maydew, E. L. & Sparks, H. C., (1999), "The Role of Big 6 Auditors in the Credible Reporting of Accruals", *Auditing: A Journal of Practice and Theory*, vol. 18, no. 2, pp. 17-34.
- Francis, J. R. & Wilson, E. R., (1988), "Auditor Changes: A Joint Test of Theories Relating to Agency Costs and Auditor Differentiation", *The Accounting Review*, vol. 63, pp. 663-82.
- Fuerman, R. D., (2004), "Audit Quality Examined One Large CPA Firm at a Time: Mid 1990's Empirical Evidence of a Precursor of Arthur Andersen's Collapse", *Corporate Ownership & Control*, vol. 2, no. 1, pp. 137-48.



- Ghosh, A. & Moon, D., (2005), "Auditor Tenure and Perceptions of Audit Quality", *The Accounting Review*, vol. 80, no. 2, pp. 585-612.
- Gibson, R. W. & Francis, J. R., (1975), "Accounting for Goodwill – A Study in Permissiveness", *Abacus*, vol. 11, no. 2, pp. 167 – 71.
- Glaum, M. & Street, D. L., (2003), "Compliance with the Disclosure Requirements of Germany's New Market: IAS Versus US GAAP", *Journal of International Financial Management and Accounting* vol. 14, no. 1, pp. 64-100.
- Glazer, R. T., (2002), "New Accounting for Business Combinations, Intangibles and Goodwill Impairment", [nysscpa.org/chapters/statenisland/combinations.doc](http://nysscpa.org/chapters/statenisland/combinations.doc).
- Graham, J. R. & Harvey, C. R., (2001), "The Theory and Practice of Corporate Finance: Evidence from the Field", *Journal of Financial Economics*, vol. 61, pp. 1-52.
- Gundry, W., (1902), "Goodwill", *The Accountant*, vol. 28, June, pp. 662-663.
- Guthrie, E., (1898), "Goodwill", *The Accountant*, vol. 24, April, pp. 425-431.
- Gynther, R., (1969), "Some Conceptualising on Goodwill", *The Accounting Review*, vol. 44, April, pp. 247 – 55.
- Hamada, R. S., (1972), "The Effect of the Firm's Capital Structure on the Systematic Risk of Common Stock", *Journal of Finance*, vol. 27, May, pp. 435-52.
- Haman, J. & Jubb, C., (2008), "Earnings Management Around a Change of Goodwill Rule ", AFAANZ Conference, Sydney, Australia.
- Harper, S., (2001), "Impairment Test Offers Clearer Picture of Goodwill", *Findarticles*, [findarticles.com/p/articles/mi\\_m0lCC/is\\_2\\_70/ai\\_80206023](http://findarticles.com/p/articles/mi_m0lCC/is_2_70/ai_80206023).
- Haswell, S. & Langfield-Smith, K., (2008), "Fifty Seven Defects in Australian IFRS", *Australian Accounting Review*, vol. 18, no. 44, pp. 46-62.
- Hatfield, F., (1909), *Modern Accounting: Its Principles and Some of its Problems*, Appleton & Co, New York.
- Hayes, R. M. & Lundholm, R., (1996), "Segment Reporting to the Capital Market in the Presence of a Competitor", *Journal of Accounting Research*, vol. 34, no. 2, pp. 261-279.
- Hayn, C. & Hughes, P., (2006), "Leading Indicators of Goodwill Impairment", *Journal of Accounting, Auditing and Finance*, vol. 21, no. 3, pp. 223-65.

- Henning, S. L., Shaw, W. H. & Stock, T., (2004), "The Amount and Timing of Goodwill Write-offs and Revaluations: Evidence from US and UK Firms", *Review of Quantitative Finance and Accounting*, vol. 23, pp. 99-121.
- Hens, T. & Loffler, A., (1996), "Existence and Uniqueness of Equilibria in the CAPM with a Riskless Asset", *SSRN*, [ssrn.com/abstract=1051](http://ssrn.com/abstract=1051).
- Herrbach, O., (2001), "Audit Quality, Auditor Behaviour and the Psychological Contract", *European Accounting Review*, vol. 10, no. 4, pp. 787-802.
- Herrmann, D. & Thomas, W. B., (2000), "An Analysis of Segment Disclosures under SFAS No. 131 and SFAS No. 14", *Accounting Horizons*, vol. 14, no. 3, pp. 287-302.
- Herz, R. H., Iannacconi, T. E., Maines, L. A., Palepu, K., Ryan, S. G., Schipper, K., Schrand, C. M., Skinner, D. J. & Vincent, L., (2001), "Equity Valuation Models and Measuring Goodwill Impairment." *Accounting Horizons*, vol. 15, pp. 161-70.
- Hirschey, M. & Richardson, V. J., (2002), "Information Content of Accounting Goodwill Numbers", *Journal of Accounting and Public Policy*, vol. 21, no. 3, pp. 173-92.
- Hodgdon, C., Tondkar, R. H., Adhikari, A. & Harless, D. W., (2009), "Compliance with International Financial Reporting Standards and Auditor Choice: New Evidence on the Importance of the Statutory Audit", *The International Journal of Accounting*, vol. 44, no. 1, pp. 33-55.
- Hodgdon, C., Tondkar, R. H., Harless, D. W. & Adhikari, A., (2008), "Compliance with IFRS Disclosure Requirements and Individual Analysts' Forecast Errors", *Journal of International Accounting, Auditing and Taxation*, vol. 17, pp. 1-13.
- Holthausen, R. W. & Watts, R. L., (2001), "The Relevance of the Value-relevance Literature for Financial Accounting Standard Setting", *Journal of Accounting and Economics*, vol. 31, nos. 1-3, pp. 3-75.
- Hoogendoorn, M., (2006), "International Accounting Regulation and IFRS Implementation in Europe and Beyond – Experiences with First Time Adoption in Europe", *Accounting in Europe*, vol. 3, no. 1, pp. 23-6.
- Hughes, H., (1982), *Goodwill in Accounting: A History of the Issues and Problems*, Georgia State University, Georgia.
- Husmann, S. & Schmidt, M., (2008), "The Discount Rate: A Note on IAS 36", *Accounting in Europe*, vol. 5, no. 1, pp. 49-62.

- Huson, J., Ali, M., M., S., M.N., A. & Ariff, M., (2000), "Auditor Switch Decision of Malaysian Listed Finns: Tests of Determinants and Wealth Effect", *Capital Market Review*, vol. 8, nos. 1 & 2, pp. 1-24.
- Jang, H.-Y. J. & Lin, C.-J., (1993), "Audit Quality and Trading Volume Reaction: A Study of Initial Public Offerings of Stocks", *Journal of Accounting and Public Policy*, vol. 12, pp. 263-87.
- Jarva, H., (2008), "Do Firms Manage Fair Value Estimates? An Examination of SFAS 142 Goodwill Impairments", AFAANZ Conference, Australian National University, Canberra, Australia.
- Jennings, R., Leclere, M. & Thompson, R., (2001), "Goodwill Amortisation and the Usefulness of Earnings", *Financial Analysts Journal*, vol. 57, no. 5, pp. 20-8.
- Jensen, M. C. & Ruback, R. S., (1983), "The Market for Corporate Control", *Journal of Financial Economics*, vol. 11, no. 1, pp. 5-50.
- Jermakowicz, E. K., (2004), "Effects of Adoption of International Financial Reporting Standards in Belgium: The Evidence from BEL-20 Companies", *Accounting in Europe*, vol. 1, pp. 51-70.
- Jermakowicz, E. K. & Gornik-Tomaszewski, S., (2006), "Implementing IFRS from the Perspective of EU Publicly Traded Companies", *Journal of International Accounting, Auditing and Taxation*, vol. 15, pp. 170–96.
- Jermakowicz, E. K., Prather-Kinsey, J. & Wulf, I., (2007), "The Value Relevance of Accounting Income Reported by DAX-30 German Companies", *Journal of International Financial Management and Accounting*, vol. 18, no. 3, pp. 151-91.
- Jerman, M. & Manzin, M., (2008), "Accounting Treatment of Goodwill in IFRS and US GAAP", *Organizacija*, vol. 41, no. 6, pp. 218-25.
- Johnson, J. D., (1993), "Goodwill: An Eternal Controversy", *The CPA Journal Online*, vol. April, pp. 58-62.
- Johnson, S. & Leone, M., (2008), "The End of GAAP Could Begin Next Year", *CFO.com*, [cfo.com/article.cfm/12001891](http://cfo.com/article.cfm/12001891).
- Kabir, M. H., Islamb, A., Sharmac, D. & Salatd, A., (2008), "Association Between Audit Quality and Earnings Quality: Do Local Big Four Auditors Provide Quality Differentiated Audits in Bangladesh?" AFAANZ Conference, Sydney, Australia.
- Kent, P. & Stewart, J., (2008), "Corporate Governance and Disclosures on the Transition to International Financial Reporting Standards ", *Accounting and Finance*, vol. 48, pp. 649-71.

- Khurana, I. K. & Raman, K. K., (2004), "Litigation Risk and the Financial Reporting Credibility of Big 4 versus Non-Big 4 Audits: Evidence from Anglo-American Countries", *The Accounting Review*, vol. 79, no. 2, pp. 473-95.
- Krishnan, G. V., (2003), "Audit Quality and the Pricing of Discretionary Accruals", *SSRN*, [ssrn.com/abstract=320164](http://ssrn.com/abstract=320164).
- Lam, S.-S. & Chang, S.-L., (1994), "Auditor Service Quality and Auditor Size: Evidence from Initial Public Offerings in Singapore", *Journal of International Accounting, Auditing & Taxation*, vol. 3, no. 1, pp. 103-14.
- Lander, G. H. & Reinstein, A., (2003), "Models to Measure Goodwill Impairment", *International Advances in Economic Research*, vol. 9, no. 3, pp. 227-32.
- Larson, R. K. & Street, D. L., (2004), "Convergence with IFRS in an Expanding Europe: Progress and Obstacles Identified by Large Accounting Firms' Survey ", *Journal of International Accounting Auditing & Taxation*, vol. 13, pp. 89-119.
- Leake, P. D., (1914), "Goodwill: Its Nature and How to Value It", *The Accountant*, vol. 50, no. 2041, pp. 81-90.
- Leake, P. D., (1930), *Commercial Goodwill: Its History, Value, and Treatment in Accounts*, Pitman, London.
- Lennox, C. S., (1999), "Audit Quality and Auditor Size: An Evaluation of Reputation and Deep Pockets Hypotheses", *Journal of Business Finance and Accounting*, vol. 26, nos. 7&8, pp. 779-805.
- Leo, K. J. & Hoggett, J., (1984), *Company Accounting in Australia*, John Wiley & Sons, Brisbane.
- Lhaopadchan, S., (2010), "Fair Value Accounting and Intangible Assets Goodwill Impairment and Managerial Choice", *Journal of Financial Regulation and Compliance*, vol. 18, no. 2, pp. 120-30.
- Li, K. & Meeks, G., (2006), "The Impairment of Purchased Goodwill: Effects on Market Value", *SSRN*, [ssrn.com/paper=930979](http://ssrn.com/paper=930979).
- Li, K. K. & Sloan, R. G., (2009), "Has Goodwill Accounting Gone Bad?" *SSRN*, [papers.ssrn.com/sol3/papers.cfm?abstract\\_id=1466271](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1466271).
- Libby, R., Nelson, M. W. & Hunton, J. E., (2006), "Recognition v. Disclosure, Auditor Tolerance for Misstatement, and the Reliability of Stock-Compensation and Lease Information", *Journal of Accounting Research*, vol. 44, no. 3, pp. 533-60.

- Lonergan, W., (2006), "Goodwill Accounting – Why It's Flawed", *National Accountant*, vol. December/January, pp. 20–3.
- Lonergan, W., (2007), "A Practitioner's Viewpoint", *The Journal of Applied Research in Accounting and Finance* vol. 2, no. 1, pp. 9-19.
- Ma, R. & Hopkins, R., (1988), "Goodwill — An Example of Puzzle-Solving in Accounting", *Abacus*, vol. 24, no. 1, pp. 75-85.
- Macintosh, J. C., (1974), "The Problem of Accounting for Goodwill", *Accountancy*, vol. November, pp. 30-42.
- Macneal, K., (1939), *Truth in Accounting*, university of Pennsylvania Press, Pennsylvania.
- Massoud, M. F. & Raiborn, C. A., (2003), "Accounting for Goodwill: Are We Better Off?" *Review of Business*, vol. 24, no. 2, pp. 26-33.
- Miller, M., (1973), "Goodwill – An Aggregation Issue", *The Accounting Review*, vol. 48, no. 2, pp. 280-91.
- Moehrle, S., Reynold-Moehrle, J. & Wallace, J., (2001), "How Informative are Earnings Numbers that Exclude Goodwill Amortisation?" *Accounting Horizons*, vol. 15, no. 3, pp. 243-56.
- Moehrle, S. R. & Reynolds-Moehrle, J. A., (2001), "Say Good-bye to Pooling and Goodwill Amortisation", *Journal of Accountancy*, vol. 192, no. 3, pp. 31-38.
- More, F., (1891), "Goodwill", *The Accountant*, vol. 17, no. 4, pp. 282-7.
- Nelson, R., (1953), "The Momentum Theory of Goodwill", *The Accounting Review*, vol. 28, no. 4, pp. 491-9.
- Ormrod, P. & Taylor, P., (2004), "The Impact of the Change to International Accounting Standards on Debt Covenants: A UK Perspective", *Accounting in Europe*, vol. 1, pp. 71-94.
- Paananen, M. & Lin, H., (2009), "The Development of Accounting Quality of IAS and IFRS over Time: The Case of Germany", *Journal of International Accounting Research*, vol. 8, no. 1, pp. 31-55.
- Palmer, P. D., (2008), "Audit Quality and Financial Report Disclosure", *Research Paper Series*, Flinders Business School, Adelaide, Australia.

- Palmrose, Z., (1988), "An Analysis of Auditor Litigation and Audit Service Quality", *The Accounting Review*, vol. 63, pp. 55-73.
- Paton, W. A., (1922), *Accounting Theory: With Special Reference to the Corporate Enterprise*, Ronald Press Company, New York.
- Paton, W. A., (1941), *Advanced Accounting*, Macmillan & Co, New York.
- Phuwanatnaranubala, T., (2005), "Practical Implementation Issues of International Financial Reporting Standards (IFRS)", UNCTAD Intergovernmental Working Group of Experts on International Standards of Accounting and Reporting (ISAR), Geneva.
- Plumlee, M. & Plumlee, D., (2008), "Information Lost: A Descriptive Analysis of IFRS Firms' 20-F Reconciliations", *Journal of Applied Research in Accounting and Finance*, vol. 3, no. 1, pp. 15-31.
- Poria, V. S., (2009), "IFRS Implementation and Challenges in India", *MEDC Monthly Economic Digest*, [gtgifrs.com/IFRS\\_Implementation\\_IN\\_India\\_VSP.pdf](http://gtgifrs.com/IFRS_Implementation_IN_India_VSP.pdf).
- Prather-Kinsey, J. & Meek, G. K., (2004), "The Effect of Revised IAS 14 on Segment Reporting by IAS Companies", *European Accounting Review*, vol. 13, no. 2, pp. 213-34.
- Pwc-Alert, (2007), "A Spectacular M&A Year for Malaysia", *PwC Alert*, [pwc.com/my/en/publications/pwcalert57-mergers-malaysia.jhtml](http://pwc.com/my/en/publications/pwcalert57-mergers-malaysia.jhtml)
- Ramanna, K., (2008), "The Implications of Unverifiable Fair-Value Accounting: Evidence from the Political Economy of Goodwill Accounting ", *Journal of Accounting and Economics*, vol. 45, nos. 2-3, pp. 253-81.
- Ramanna, K. & Watts, R. L., (2007), "Evidence on the Effects of Unverifiable Fair-Value Accounting", *Working Paper No. 08-014*, Harvard Business School, Harvard.
- Ramanna, K. & Watts, R. L., (2009), "Evidence from Goodwill Non-impairments on the Effects of Using Unverifiable Estimates in Financial Reporting", *Working Paper*, Harvard Business School, Harvard.
- Rezaee, Z., Smith, L. M. & Szendi, J. Z., (2010), "Convergence in Accounting Standards: Insights from Academicians and Practitioners", *Advances in Accounting*, vol. 26, no. 1, pp. 142-54.
- Roby, A. G., (1892), "Goodwill", *The Accountant*, vol. 18, April, pp. 288-293.
- Sanders, T. H., Hatfield, H. R. & Moore, U., (1938), *A Statement of Accounting Principles*, American Institute of Accountants, New York.

- Sands, J., (1963), *Wealth, Income and Intangibles*, University of Toronto Press, Ontario.
- Schipper, K., (2005), "The Introduction of International Accounting Standards in Europe: Implications for International Convergence", *European Accounting Review*, vol. 14, no. 1, pp. 101-26.
- Schuetze, W. P., (1992), Relevance and Credibility in Financial Accounting and Reporting, in Wolnizer, P. (eds.), *Mark to Market Accounting – True North in Financial Reporting*, Routledge, London.
- Seetharaman, A., Balachandran, M. & Saravanan, A. S., (2004), "Accounting Treatment of Goodwill: Yesterday, Today and Tomorrow: Problems and Prospects in the International Perspective", *Journal of Intellectual Capital*, vol. 5, no. 1, pp. 131-52.
- Seetharaman, A., Sreenivasan, J., Sudha, R. & Yee, T. Y., (2006), "Managing Impairment of Goodwill", *Journal of Intellectual Capital*, vol. 7, no. 3, pp. 338-53.
- Sevin, S. & Schroeder, R., (2005), "Earnings Management: Evidence from SFAS No.142 Reporting", *Managerial Auditing Journal*, vol. 22, no. 1, pp. 47-54.
- Sevin, S., Schroeder, R. & Bhamornsiri, S., (2007), "Transparent Financial Disclosure and SFAS No. 142", *Managerial Auditing Journal*, vol. 22, no. 7, pp. 674 - 87.
- Shapiro, C., (1983), "Premiums for High Quality Products as Returns to Reputations", *The Quarterly Journal of Economics*, vol. 98, no. 4, pp. 659-80.
- Smith, A. F., (1969), "Purchased Goodwill is an Investment: Treat It as Such", *Management Accounting*, vol. November, pp. 19-22.
- Spacek, L., (1963), *The Treatment of Goodwill in the Balance Sheet*, Arthur Anderson & Co., Chicago.
- Spacek, L., (1964), "The Treatment of Goodwill in the Corporate Balance Sheet", *The Journal of Accountancy*, vol. February, pp. 35-40.
- Spacek, L., (1973), The Merger Accounting Dilemma – Proposed Solutions, in (eds.), *A Search For Fairness in Financial Reporting to the Public – Volume II*, Arthur Andersen & Co, Chicago.
- Spackman, E. T., (1919), "Goodwill", *Australasian Accountant and Secretary*, vol. September, pp. 29-32.

- St.Pierre, K. & Anderson, J. A., (1984), "An Analysis of the Factors Associated with Lawsuits Against Public Accountants", *Accounting Review*, vol. 59, no. 2, pp. 242-63.
- Stacey, W. E., (1888), "Goodwill", *The Accountant*, vol. 14, September, pp. 605-606.
- Sterling, R., (1990), "Positive Accounting: An Assessment", *Abacus*, vol. 26, no. 2, pp. 97-135.
- Stewart, R. E., (1980), *Accounting for Goodwill: Research Bulletin R-112*, New Zealand Society of Accountants, Wellington.
- Street, D. L. & Bryant, S. M., (2000), "Disclosure Level and Compliance with IASs: A Comparison of Companies with and without U.S. Listings and Filings", *The International Journal of Accounting*, vol. 35, no. 3, pp. 305-29.
- Street, D. L. & Gray, S. J., (2001), *Observance of International Accounting Standards: Factors Explaining Non-compliance*, ACCA Research Report, No. 74.
- Street, D. L. & Gray, S. J., (2002), "Factors Influencing the Extent of Corporate Compliance with International Accounting Standards: Summary of a Research Monograph", *Journal of International Accounting, Auditing & Taxation*, vol. 11, pp. 51-76.
- Street, D. L., Gray, S. J. & Bryant, S. M., (1999), "Acceptance and Observance of International Accounting Standards: An Empirical Study of Companies Claiming to Comply with IASs", *The International Journal of Accounting, Auditing & Accountability Journal*, vol. 34, no. 1, pp. 11-48.
- Street, D. L., Nichols, N. B. & Gray, S. J., (2000), "Segment Disclosures Under SFAS No.131: Has Business Segment Reporting Improved?" *Accounting Horizons*, vol. 14, pp. 259-85.
- Sucher, P. & Alexander, D., (2002), *IAS: Issues of Country, Sector and Audit Firm Compliance in Emerging Economies*, Centre for Business Performance of the Institute of Chartered Accountants in England and Wales, London.
- Sucher, P. & Jindrichovska, I., (2004), "Implementing IFRS: A Case Study of the Czech Republic", *Accounting in Europe*, vol. 1, pp. 109-41.
- Susela, S. D., (1999), ""Interest" and Accounting Standard Setting in Malaysia ", *Accounting, Auditing & Accountability Journal*, vol. 12, no. 3, pp. 358-87.
- Tearney, M. G., (1973), "Accounting for Goodwill: A Realistic Approach", *The Journal of Accountancy*, vol. July, pp. 41-45.
- Teodori, C. & Veneziani, M., (2007), "Intangible Assets in Annual Reports: A Disclosure Index ", *Accounting in Europe Workshop*, 12-13 September, Paris.



- Teoh, S. H. & Wong, T. J., (1993), "Perceived Auditor Quality and the Earnings Response Coefficient", *The Accounting Review*, vol. 68, no. 2, pp. 346-66.
- Terry, A. & Giugni, P. D., (1995), "Freedom of Contract, Business Format Franchising and the Problem of Goodwill", *Australian Business Law Review*, vol. 23, no. 4, pp. 241-58.
- Tilis, L. B., (2005), "Audit Quality and Risk Differences among Auditors", *The ICFAI Journal of Audit Practice*, vol. 3, no. 3, pp. 7-29.
- Titman, S. & Trueman, B., (1986), "Information Quality and the Valuation of New Issues", *Journal of Accounting and Economics*, vol. 8, no. 2, pp. 159-72.
- Tokar, M., (2005), "Convergence and the Implementation of a Single Set of Global Standards: The Real-life Challenge", *Accounting in Europe*, vol. 2, no. 1, pp. 47-68.
- Tong, T. L., (1992), "Goodwill and Identifiable Intangible Assets - An Empirical Study of Company Practices and User Preferences in Malaysia", *The Malaysian Accountant*, vol. April, pp. 2-7.
- Tweedie, D., (2007), "Can Global Standards be Principle Based?" *Journal of Applied Research in Accounting and Finance*, vol. 2, no. 1, pp. 3-8.
- Valentine, T. & Ford, G., (1999), *Readings in Financial Institution Management: Modern Techniques for a Global Industry*, Allen & Unwin, Sydney.
- Van-Tendeloo, B. & Vanstraelen, A., (2005), "Earnings Management under German GAAP versus IFRS", *European Accounting Review*, vol. 14, no. 1, pp. 155-80.
- Vance, D. E., (2006), "Is Goodwill Really an Asset?" *Working Paper Series WCRFS: 06-11*, Fisher College of Business, Ohio.
- Vance, D. E., (2008), "Evidence that Companies are not Analyzing Goodwill for Impairment as Required by SFAS142", *WCRFS: 08-08*, Rutgers University, Camden.
- Vichitsarawong, T., (2007), *The Usefulness of Goodwill Impairment Under SFAS No. 142 in Reflecting the Relative Efficiency of Firms*, Oklahoma State University, Oklahoma.
- Walker, G., (1938), "Goodwill on Financial Statements", *The Accounting Review*, vol. 113, no. 2, pp. 174-82.
- Walker, G., (1953), "Why Purchased Goodwill Should be Amortised on a Systematic Basis", *The Journal of Accountancy*, vol. 95, no. 2, pp. 210-6.

- Warren, W. R., (1894), "Goodwill", *The Incorporated Accountant's Journal*, vol. April, pp. 97-99.
- Watts, R. & Zimmerman, J., (1986), *Positive Accounting Theory*, Prentice Hall, New York.
- Watts, R. L., (2003), "Conservatism in Accounting Part I: Explanations and Implications", *Accounting Horizons*, vol. 17, pp. 207-23.
- Wines, G., Dagwell, R. & Windsor, C., (2007), "Implications of the IFRS Goodwill Accounting Treatment", *Managerial Auditing Journal*, vol. 22, no. 9, pp. 862-80.
- Wines, G. & Ferguson, C., (1993), "An Empirical Investigation of Accounting Methods for Goodwill and Identifiable Intangible Assets: 1985 to 1989", *Abacus*, vol. 29, no. 1, pp. 90-105.
- Wise, R. M., (1986), "Paying a Premium for Control", *CA Magazine*, vol. December, pp. 72-75.
- Wolff, W., (1967), "Accounting for Intangibles", *Canadian Chartered Accountant*, vol. October, pp. 255-259.
- Yang, J. M., (1927), *Goodwill and Other Intangibles*, The Ronald Press Company, New York.
- Yap, T. H. & Guan, C. S., (Eds.), (1997), *Malaysia*, in Ma, R. (ed.), *Financial Reporting in the Pacific Asia Region*, World Scientific, Singapore.
- Zang, Y., (2008), "Discretionary Behavior with Respect to the Adoption of SFAS No. 142 and the Behavior of Security Prices", *Review of Accounting and Finance*, vol. 7, no. 1, pp. 38-68.
- Zhang, I. & Zhang, Y., (2007), "Accounting Discretion and Purchase Price Allocation after Acquisitions", *Research Paper No. 07-04*, HKUST Business School, Hong Kong.
- Zhou, J. & Elder, R., (2003), "Audit Firm Size, Industry Specialization and Earnings Management by Initial Public Offering Firms", *Working Paper*, Syracuse University, Syracuse, New York and SUNY, Binghamton.