An Investigation into the Accounting Treatment of Goodwill in Ireland

by

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Abstract

Accounting for goodwill has been a topic of debate for the last century due to the nature of goodwill and difficulties in valuing and presenting it into accounts. Its importance has increased in the last years due to the emergence of the knowledge-based economy and international reporting requirements for comparable, relevant and reliable financial information.

The purpose of this study is to understand, describe, and explain the accounting treatment of goodwill in Ireland since the 1970's, following an interpretivist approach.

The opinions on and accounting treatments of this subject have differed and changed frequently. It was first deducted from the stockholders' equity, and then capitalised without/or with amortisation, and finally capitalised and tested for impairment annually.

The literature review presents a comprehensive overview of the area of goodwill accounting, describing how the methods of accounting for it have changed over the years, identifying the strengths and weaknesses of the various approaches, and comparing the standards applied to the area.

The primary research was carried out through a questionnaire (for analysing the opinions of senior accountants of Irish listed companies on the international accounting standards on goodwill) and interviews with two experts in financial accounting.

Proponents of IFRS 3 claim that this standard provides investors with transparent and comparable information, while the critics argue that the impairment test is subjective, leaves room for earnings' management and is not much more accurate than the amortisation method previously used.

Most responses suggest that amortisation of goodwill would be preferred over impairment. Amortisation is easier and more realistic than the impairment test, which is considered complex, subjective and time consuming. While the amortisation systematically reduces the goodwill balance, an impairment loss can lead to fluctuations in the accounts.

The goodwill proportion in total intangibles is over seventy-five percents for the vast majority of the respondents and this confirms the findings from the literature review. It is considered necessary that pressure be brought to bear on companies to report more intangibles.

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Abbreviations

ASB	Accounting Standard Board
ASC	Accounting Standard Committee
ASSC	Accounting Standards Steering Committee
CGU	Cash Generating Unit
ED	Exposure Draft
EU	European Union
FASB	Financial Accounting Standard Board
FRS	Financial Reporting Standard
GAAP	Generally Accepted Accounting Practice
IAS	International Accounting Standard
IASB	International Accounting Standard Board
IFRS	International Financial Reporting Standard
SFAS	Statement of Financial Accounting Standard
SSAP	Statement of Standard Accounting Practice

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Chapter One: Introduction

1. Overview of the research area/topic

The history of accounting for goodwill is one of considerable controversy.
Is goodwill an asset? Where to 'place' the item in the financial statements? 'Once recognised as an intangible asset how this asset should be amortised? What is the useful economic life of the asset? How should any reductions in value be measured and/or treated in the accounts?' (Elliot, 2004). A major part of the problem of accounting for goodwill is agreeing on a definition of the term itself.

Since the early 1970s the standard-setters have produced a series of discussion papers, exposure drafts and accounting standards, culminating in International Financial Reporting Standard (IFRS) 3 'Business Combinations', International Accounting Standard (IAS) 38 'Intangible Assets' and IAS 36 'Impairment of Assets'. The key publications are presented in the next chapter.

Over the past forty years the main accounting treatments used in Ireland and UK for dealing with purchased goodwill in group accounting included:

- Merger accounting
- Immediate write-off against profits
- Immediate write-off against reserves
- Capitalisation and amortisation against future profits over its useful economic life
- Capitalisation, amortisation and/or impairment
- Capitalisation and impairment

Each attempt to tackle goodwill was criticised by the profession, management and/or academic accountants.

Under merger accounting (now banned), the existing assets of the two merging entities were added together and goodwill did not arise.

Immediate write-off against profits was not very popular due to very substantial reductions in profit.
Immediate write-off against reserves was the preferred option because it allowed disposing of an unwanted debit without reducing reported profit, but soon led to some companies running up against borrowing restrictions or Stock Exchange regulations.
There were also concerns that the balance sheets were 'weakened', making it harder to take over other companies and easier to be taken over (Arnold et al., 1994).

Writing off goodwill against reserves distorted some of the primary ratios (it reduced the shareholders' reserves and therefore the capital employed) and had effects on inter-firm comparison. Gearing ratios (i.e. loans/shareholders' funds) increased and this could have led to a breach of loan covenants and difficulties in obtaining loans.
According to Elliot and Elliot (2006) the methods of writing-off of goodwill against reserves or profit are wrong as the loss in the value of the goodwill occurs over its life and this loss should be charged to the income statement.

In order to avoid the two treatments of goodwill prescribed in SSAP 22, companies turned to creative accounting by structuring the acquisition so as to account for it as a merger or by calling the goodwill something else – 'brands' being the most popular choice as they were not the subject of an accounting standard.

Despite the fact that amortisation of goodwill was criticised for being even more arbitrary than other forms of depreciation (it is possible to determine the economic life for tangible assets but with goodwill this is much more difficult), it had the merits of being simple and cheap to implement and consistent with the treatment for other assets, reducing the scope for manipulating results by manipulating the categorisation of assets.

Financial Reporting Standard (FRS) 10 'Goodwill and intangible assets' superseded the Statement of Standard Accounting Practice (SSAP) 22 'Accounting for goodwill' and brought some changes to SSAP 22 in the sense that internally generated goodwill was excluded from amortisation and goodwill and intangible assets were subject to an impairment review.

The impairment reviews prescribed by FRS 11 have received mixed reactions in the UK. Unilever considered them as a "costly and impractical exercise" that will "involve a considerable element of subjective judgement" while Guinness concluded that the impairments "required relatively limited expertise and effort, were straightforward to apply and required only data that is readily available at head office, gave credible results that corresponded with management expectations and called for no more subjective judgement than that necessary for evaluating an acquisition or producing the group's financial and strategic plan" (Elliot, 2004).

One of the reasons for the removal of traditional amortisation under IFRS 3 was the arbitrary nature of the amortisation process. It is possible to determine the economic life for tangible assets but with goodwill this is much more difficult because 'an estimate of its useful life becomes less reliable as the length of the useful life increases' (Waxman, 2001 as cited in Dagwell et al. 2004).

2. Rationale for the study/research

The main reason for wishing to research this area was to determine the opinions of senior accountants of the Irish listed companies on the change to the new goodwill reporting procedures, judge if the new standards are truly better than the ones it supercedes, and consider if these standards have solved the controversy on goodwill.

3. Scope and limitations

The purpose of this study is to understand, describe, and explain the accounting treatments of goodwill that have applied to the Irish Listed Companies. This was done using an interpretivist approach resulting in an inductive research carried out through the use of a questionnaire and of interviews held with Robert Kirk and Derarca Dennis.

The limitation of this research is that a quantitative research was not possible due to time and resource constraints.

Chapter Two: Literature Review

2.1 Introduction

Goodwill has been a topic of debate for a good part of a century. The opinions on and accounting treatments of this subject have differed and changed frequently. It was first deducted from the stockholders' equity, and then capitalised without/or with amortisation, and finally capitalised and tested for impairment annually.

Part of the debate was (and still is) the lack of an agreement on a definition of the term itself but the fundamental concern was whether the expenditures on intangible assets should had been expensed or capitalised.

Confusion over goodwill was one of the main reasons for setting up the Accounting Standard Committee (ASC) (Wild as cited by Bloom, 2006).
According to Bryer (1995), the predecessor of ASC, the Accounting Standards Steering Committee (ASSC), began work on the goodwill standard in 1974. No official published material emerged from this exercise.

Holgate as cited by Bryer (1995) states that ASSC stopped working on the goodwill standard because of its conceptual difficulty. However, there were other reasons for this stoppage. One reason was that immediate write-off was forbidden by the proposed European Union Fourth Directive (which required amortisation over a maximum of five years or longer if disclosure was provided). Another reason was the UK government decision to subsidise the UK's manufacturing industry that led to a drop in merger activity and consequently in the amounts of goodwill paid.

The ASC was established in 1976 to develop a system of definitive standards for financial reporting and accounting, following accounting scandals of the late 1960s and early 1970s. In 1978, following the publication of the write-off option in the Fourth Directive, the ASC recommended the amortisation method but left open the write-off option.

The Accounting Standards Board (ASB) took over the task of setting accounting standards from the ASC in 1990, adopting the SSAPs issued by the ASC.
As Alexander and Britton (1996) noted, 'ASB was being presented with a complete mess' in that 'the SSAP 22 goodwill standard demonstrably failed to standardise, was widely criticized for illogicality, and was out of step with many other countries'.

The ASB also collaborates with accounting standard-setters from other countries and the International Accounting Standards Board (IASB) both in order to influence the development of international standards and to ensure that its standards are developed with due regard to international developments. In addition ASB also collaborates with the US Financial Accounting Standard Board (FASB). This is evident in the direction that accounting for goodwill has taken.

2.2 Business combinations

Words such as merger, amalgamation, absorption, takeover, acquisition or business combinations are used interchangeably to describe the coming together of two or more businesses (Lewis and Pendrill, 2000).

A company may expand either by internal growth (purchase of new premises and assets) or external growth (by purchase of an established business). In the latter case one company acquires control of the other business.
Before acquisition it is necessary to establish the value of the target company for its present owners, or the minimum price acceptable and the value of the combined businesses, or the maximum price, which will be offered.

The reasons for business combinations are varied and include the purchase of undervalued assets, possible economies of scale, elimination or reduction of competition by vertical or horizontal integration, reduction of risk, managerial objectives of increasing the market power, defending the company's market position and protect it from a takeover (Lewis and Pendrill, 2004).

Market conditions are creating an encouraging environment for acquisitions, with contributory factors including continuing globalization of financial markets, the property boom, an availability of inexpensive debt to finance takeovers, and a strong supply of companies for sale (Deloitte, 2007).

As Cole (2005) mentioned, the trend towards increased acquisitions has been led by CRH (the most acquisitive Irish company, closing fifty-eight deals overseas during 2005, and sixty-nine[1] deals in 2006).

2.3 Goodwill definition

In the sixteenth and seventeenth centuries goodwill was defined as ‘the good feeling of customers of the business toward the proprietor because of the cordial and friendly relationship or because of a favourable location for business’ (Hughes, 1982).

With the development of large corporate businesses the concept of goodwill broadened including the differential advantages (Hughes, 1982).

There are two approaches in defining goodwill: the residual approach and the excess profits approach.

Under the residual approach (accounting’s broad definition) goodwill is ‘the difference between the purchase price and the fair market value of an acquired company’s tangible assets’ (Reilly and Schweihs, 1998). It should however be noted that from the accountant’s point of view goodwill includes the intangibles of a business.

Under the excess profits approach (economics definition) goodwill appears as ‘the capitalisation of all the economic income from a business enterprise that cannot be associated with any other asset (tangible or intangible) of the business’ (Reilly and Schweihs, 1998). In other words, goodwill is the difference between the company’s profits over normal earnings for a similar business. This definition is narrower than

[1] CRH Annual Report for 2006, page 10

the accounting definition of goodwill and 'may be more useful to analysts interested in valuation of goodwill' (Reilly, 2005).

U.S. Supreme Court Justice William J. Brennan's famous definition of 'obscenity' is often quoted: 'I can't define it, but I know it when I see it'. As Reilly and Schweihs, 1998 noted 'there is nothing necessarily obscene about goodwill except, perhaps, its ability to escape definition'. 'One can argue that the variation in the accounting treatment is due directly to problems associated with defining the nature of goodwill' (Hughes, 1982).

2.4 Valuation methods for goodwill

As with all intangible assets, cost approach, market approach, and income approach methods are all applicable to the valuation and economic analysis of goodwill (Reilly and Schweihs, 1998).

The cost approach is the least commonly used, namely in the analysis of foregone economic income (opportunity cost). The current cost required to recreate the elements of the goodwill is determined using the component build-up method by identifying all the individual components of goodwill and estimating the cost required to recreate each component (Reilly and Schweihs, 1998). This approach can be a useful benchmark for a valuation but ignores 'maintenance' and 'changes in the time value of money' (King, 2001).

Under the market approach, two methods are commonly used: the first method estimates the value of goodwill as the residual from the purchase price of the actual sale of the business, while the second identifies actual sales of businesses comparable with the business considered, calculates goodwill for the comparable business as a percentage of the total transaction price (or as a percentage of the total annual revenue earned by the business) and applies this percentage to the business considered. Even this second approach relies on the first residual from purchase price method, allocating the sales price between goodwill and other intangibles.

Market methods provide the best evidence of fair value by analysing similar intangibles that have been recently sold. The practical difficulties relate to collecting and selecting the relevant data (Reilly and Schweihs, 1998, King, 2001, Deloitte, 2006). Special purchasers, different negotiating skills, and the distorting effects of the peaks and troughs of economic cycles are other limitations of this method (King, 2001).

The most commonly used income approach for goodwill valuation is the discounted cash-flow, which is based on the premise that the value of the business is the present value of future economic income to be derived by the stakeholders of the business. Reilly and Schweihs consider this method ‘conceptually correct’ and ‘consistent with the way economists perceive goodwill’ but difficult to use in practice ‘due to uncertainties of long-term projections of economic income’.

‘Using more than one valuation approach is generally recognised as providing supporting evidence as to the most likely value of an asset or business. Whenever is possible, more than one valuation approach should always be considered’ (Deloitte, 2004).

2.5 Methods of accounting for goodwill under UK Generally Accepted Accounting Practice (GAAP)

2.5.1 Accounting treatment of goodwill pre-SSAP 22

The first official statement on the accounting for goodwill in the UK was the publication in 1980 of an ASC Discussion Paper, which prohibited any accounting entries in respect of non-purchased goodwill as ‘it was not the objective of accounting to report subjective economic values’ (Bryer, 1995). It also proposed writing off acquired goodwill over the numbers of years for which the profits purchased were anticipated.

This discussion paper stated that it was wrong to write-off purchased goodwill against the share premium account in a share-for-share exchange, since it would imply a reduction of invested capital. The same principle was used to reject write-offs against other equity reserves.

In October 1982, Exposure Draft (ED) 30 followed the discussion paper and allowed either amortising goodwill over its useful economic life or writing it off against equity reserves on acquisition, the last option being justified on the ground of consistent treatment of purchased and non-purchased goodwill.

2.5.2 SSAP 22 'Accounting for goodwill'

SSAP 22 was issued in December 1984, revised in July 1989 and replaced by FRS 10 'Goodwill and intangible assets' in December 1997.

The main requirements of SSAP 22 Accounting for goodwill are presented below:

- Non-purchased goodwill was not included in the balance sheet of companies or groups.
- Purchased goodwill appeared in the balance sheet and was calculated as the difference between the fair value of the consideration given and the aggregate of the fair value of the net assets acquired. Fair value was the amount for which an asset (or liability) could be exchanged in an arms' length transaction.
- Purchased goodwill could either be written-off immediately on acquisition against reserves or amortised by charges against the profit and loss account over its useful economic life.
- Intangible assets were presented separately from purchased goodwill.
- The excess of fair value of the assets acquired over the fair value of the consideration given (negative goodwill) was credited to non-distributable capital reserves.
- Purchased goodwill was not revalued but, if there was a permanent reduction in its value, it could be written down immediately through the profit and loss account to its recoverable amount (Wood and Sangster, 1999).

SSAP 22 ignored the ASC Discussion Paper's arguments against writing-off goodwill against share capital or reserves and allowed, as ED 30 proposed, a choice between two options with opposite effects on the accounts.

As Lewis and Pendrill (2000) stated, the accruals concept required the cost of acquired goodwill to be carried forward and matched against revenues of the periods expected to benefit from the use of such intangible assets. Due to the uncertainty of future benefits and the difficulties in assigning benefits to intangible assets, the prudence convention would appear more appropriate, no assets should be recognised and the purchased goodwill should be written off.

As a result, SSAP 22 allowed positive goodwill to be accounted for using two incompatible methods simultaneously in respect of different acquisitions (Lewis and Pendrill, 1996).

However, SSAP 22 preferred the immediate write-off of purchased goodwill to be consistent with the legal requirement of not including the non-purchased goodwill in the balance sheet (Lewis and Pendrill, 1996) and because 'it was what most people were already doing' (Alexander and Britton, 1996).

Writing-off had three major advantages:

- Avoided estimating useful life.
- Resulted in a consistent treatment of purchased and internally generated goodwill (Lewis and Pendrill, 1996) and this was 'helpful when comparing two similar firms, one of which has grown by acquisition and another by internal growth' (Taylor as cited by Grinyer et al, 1990).
- Had no impact on the profit and loss account making 'the operations of a firm appear more efficient' (Alexander and Britton, 2004), which would explain why it was the preferred option.

2.5.2.1 Problems encountered in application of SSAP 22

SSAP 22 allowed two options with different impacts on the financial statements.

‘Immediate write-off reduced shareholders’ funds and net assets possibly to abnormally low levels, resulting in a lower capital employed figure, a higher return, and a higher resultant return on capital employed. It also raised the gearing ratio’ (Sangster, 1997). The capitalisation and amortisation method had an opposite effect to the above (Alexander and Britton, 1996).

The choice in treatment did not apply to negative purchased goodwill. This was credited directly to unrealised reserves from where it was transferred to realised reserves in line with its depreciation or realisation (Sangster, 1995).

If an individual company acquired an unincorporated entity and wrote-off the goodwill arising through an unrealised reserve and amortised the reserve entry over the useful life, the effect was the same as from capitalisation and amortisation, though it still resulted in the immediate reduction of shareholders’ funds and net assets. The effect of the choice made was not, therefore, as great as it first appeared (Sangster, 1997).

‘Almost every conceivable reserve, including negative reserves, had been used to write off goodwill balances’ (Alexander and Britton, 1996) because the standard gave no guidance as to which reserve (revaluation reserve, share premium, and capital redemption reserves) to use for immediate write-off of goodwill (Sangster, 1997). For the last two types of reserves, application could have been made to the courts for their redefinition in order to use them for this purpose. Also, elimination against reserves was not an internationally recognised method (Houillon and Clendon, 1999).

The amortisation period was the best estimate possible at the purchase date of the useful economic life. Subsequently this could be reduced but it could not be increased, even if the period selected was seen to have been inappropriate (Sangster, 1997).

Goodwill could be avoided by assigning value to other intangible assets such as trademarks and patents, which were not subject to SSAP 22 and could be carried indefinitely if the intangible assets had infinite lives.

Purchased goodwill was recognised as an asset while non-purchased goodwill was not. There were arguments that either both should be recognised, or neither and that to do otherwise was inconsistent (Sangster, 1997).

Difficulties in deciding on an appropriate standard accounting practice appeared when a permanent fall in value of goodwill had to be determined for the business' segment which gave rise to the goodwill, when the segment was no longer identifiable (Lewis and Pendrill, 1996).

Another problem arose since SSAP 22 did not contain any disclosure requirements regarding the adjustments to be made to the book values of assets and liabilities of the acquired company when ascribing fair values (Alexander and Britton, 1996).

As a result, ED 44 was issued in September 1988 and required adjustments (such as incorporating revaluations, making provisions and recognizing previously unrecorded intangible assets, applying and acquiring groups' accounting policies to the acquiree) to be made.

SSAP 22 was revised in July 1989 in an attempt to alleviate the problems identified by ED 44, but the changes were only in respect of disclosure required, including:

- Fair value of the consideration and the amount of goodwill arising on each acquisition during the period.
- The method used for dealing with the goodwill arising (set-off against merger reserve or other reserves or carried forward as an intangible asset).
- The book value (before any acquisition adjustments) and the fair value of each major category of assets acquired and an explanation for the reasons in differences between those values.
- The adjustments had to be presented under revaluations, provisions for future trading losses, and other provisions; the amounts that were not included above had to be analysed between bringing accounting policies into line with those of the acquiring group and any other major item.
- Details about provisions created at acquisition (amounts used, applied for another purpose, or released unused) (Alexander and Britton, 1996).

SSAP 22 did not provide any measurement rule in respect of disposal of a previously acquired business or business segment, but the revised SSAP 22 required disclosures for material disposals: the profit and loss on disposal, purchased goodwill attributable to the business or segment disposed of, the accounting treatment adopted.

SSAP 14 'Group Accounts' required the profits or loss on disposal to be calculated as the difference between sale proceeds and net assets excluding goodwill previously eliminated against reserves. The Urgent Issue Task Force issued a statement in December 1981 and required the amount of purchased goodwill attributable to the business disposed of and included in the calculation of the profit and loss on disposal to be separately disclosed as a component of the profit and loss on disposal, either on the face of the profit and loss account or in a note to the financial statements.

2.5.2.2 ED 47 'Accounting for goodwill'

ED 47 was issued in February 1990 and 'proposed to ban altogether the preferred option of SSAP 22' (Alexander and Britton, 1996) in response to the major criticism that 'the immediate write-off obscured the rate of return on capital' (Bryer, 1995) and due to international pressure to return to amortisation for improving international comparability.

The purchased goodwill had to be amortised through the profit and loss account over the useful life that could not exceed twenty years (except in rare circumstances where it could be demonstrated that a period in excess of twenty years was more appropriate) and could never exceed forty years.
ED 47 was not received with great enthusiasm and never progressed beyond an exposure draft.

In conclusion, SSAP 22 allowed different methods (which resulted in a lack of comparability of performance measures such as return on capital employed and gearing), preferred elimination of goodwill against reserves at acquisition (this implied loss of value on acquisition, decrease in equity and increased gearing leading to a reduction in the amount of goodwill in favour of other intangibles) and a change was necessary to solve the problems emphasised above.

2.5.3 FRS 10 'Goodwill and intangible assets'

FRS 10 was issued in December 1997 (effective from December 1998) and ended the controversies related to SSAP 22.

FRS 10's main objectives were to ensure that purchased goodwill and intangible assets were amortised and that sufficient information was disclosed in the financial statements to enable the users to determine the impact on the financial position and performance of the reporting entity (FRC website).

The FRS 10 summarised requirements are as follows:

- Recognition of internally generated goodwill was not allowed
- Internally developed intangible assets were to be capitalised only where they had a readily ascertainable market value.
- Purchased goodwill was calculated as the difference between the cost of an acquired entity and the aggregate of the fair values of that entity's identifiable assets and liabilities.
- Purchased goodwill and intangible assets were capitalised and amortised over a period not exceeding twenty years; if their useful life exceeded twenty years, or was considered infinite, there was no amortisation at all but impairment tests were required. This necessitated a comparison of the recoverable amount of an asset (higher of net realisable value and value in use) and its carrying value.
- Amortisation was to be carried out on a systematic basis using the straight-line method. No residual value could be attached to goodwill.
- Impairment reviews were required (if goodwill or intangible assets useful life was twenty years or less) after the first full financial year following the acquisition and thereafter if circumstances indicated a review to be necessary. If goodwill was amortised over a period longer than twenty years, or not

amortised at all, the impairments should had been done at the end of each accounting period. Guidance on how to carry out the impairment test was given in FRS 11, 'Impairment of fixed assets and goodwill'.

- The reversal of past impairment losses was recognised in two circumstances to the extent that it increased the carrying amount of the goodwill or intangible asset up to the amount that it would have been if the original impairment had not occurred (Black, 2003).
- Negative goodwill (attributed to a bargain purchase or future costs or losses) had to be shown separately on the balance sheet and written-off to profit and loss account in the periods expected to benefit from the associated assets.
- Valuation methods, amortisation methods/periods and changes in them had to be disclosed and the movements in cost/valuation and accumulated amortisation had to be reconciled.

The new feature of UK GAAP was the impairment review prescribed by the FRS 11. Goodwill was attributed to units of the business with separately identifiable cash flows, called income-generating units; these cash flows were projected into the future and discounted at a rate reflecting the risk of those particular units. A company had to compare the value of goodwill and intangible assets in the balance sheet with the discounted future cash flows expected from these assets (FRC website).
With the introduction of the impairment test, the prudence concept gained in importance compared with the previously used accruals principle.

FRS 10 was criticised for allowing goodwill to be carried permanently at cost on the grounds that its life was indefinite. The arguments against this criticism were that goodwill could be maintained or increased in value and that the particular combination of factors constituting the goodwill at the time of purchase lost effectiveness and was replaced with new internally generated goodwill as time passed. Other problems were that allowing goodwill to have an indefinite useful life did not comply with the Companies Act 1985 and did not agree with the requirements of IAS 22 (Stein, 1998).

The main progress from SSAP 22 was that FRS 10 recognised the unique nature of goodwill and achieved a consistent treatment between the goodwill and intangible assets, reducing the scope for creative accounting.

However, some problems remained. The impairment review was considered expensive, difficult to perform and subjective, the choice between amortisation and impairment review might have hindered comparability and the treatment of negative goodwill might have created a 'dangling credit' and proved difficult in terms of its amortisation (Harrington, 1999, Patterson, 2002).

2.6 Accounting for goodwill under International Standards

2.6.1 IAS 22 'Business Combinations'

According to **IAS 22 'Business Combinations'** (first issued in 1993, revised in late 1993 and 1998, and replaced by IFRS 3 in 2004), all business combinations were considered acquisitions and accounted for using the purchase method except in circumstances where an acquirer could not be identified and merger accounting was allowed. The purchase method allowed goodwill to be either amortised to income or immediately adjusted against shareholders interests and it was broadly in line with SSAP 22.

IAS 22 was amended in 1993 by removing the option of writing off purchased goodwill immediately on acquisition, and in 1998, when goodwill became subject to an impairment review where the amortisation period exceeded 20 years. This change was made after FRS 10 became effective.

IAS 22 (para.40) defined goodwill as 'any excess of the cost of the acquisition over the acquirer's interest in the fair value of the identifiable assets and liabilities acquired as at the date of the exchange transaction'. In other words, goodwill is the difference between the cost of the purchase and the fair value of the asset.

This standard assumed that the maximum life of goodwill was twenty years. If there was evidence that it was more than twenty years, an enterprise had to amortise the goodwill over its estimated useful life (consistent with IAS 38, ‘Intangible Assets’), test goodwill for any reduction in value at least annually (according to IAS 36, ‘Impairment of Assets’) and disclose the factors in determining the useful life and why the assumption of the twenty years useful life was overcome. All these requirements were similar to the Irish/UK GAAP, FRS 10 and FRS 11.

Negative goodwill appeared ‘as a deduction from the assets of the enterprise, in the same balance sheet classification as (positive) goodwill’ [IAS 22.64] or ‘as income when the future losses and expenses were recognised’ [IAS 22.61]. This is similar to FRS 10.

IAS 22 reflected the disharmony of goodwill accounting regulation until 1993, when the option to write-off goodwill immediately on acquisition was removed; since 1998 the Irish/UK GAAP and international standards had the same requirements regarding goodwill impairment.

2.6.2 IFRS 3 ‘Business Combinations’

IFRS 3 replaced IAS 22 in April 2004, was revised again in June 2005 and is similar to the US Financial Accounting Standard (SFAS) no. 141, ‘Business combinations’.

The main objective of IFRS 3 is to make the acquisition process more transparent by presenting separately all the intangible assets acquired, as they continue to make up an increasing proportion of the value of an acquired business.
Richard Winter, PricewaterhouseCoopers (PwC) partner, believes that IFRS 3 improves the rigour of the acquisition process and businesses have now to justify in the balance sheet what they are buying.

IFRS 3 adoption brought changes, which included:

- Purchase accounting has to be applied to future combinations. Merger accounting (where balance sheets of the combined companies were added together) was eliminated because it was difficult to achieve the strict criteria. Having only one business combination approach should enhance inter-comparability in the future (Williams, 2007).
- The definition of goodwill has changed. IFRS 3 defines goodwill as the fair value of cost of acquisition less acquirer's interest in fair value of the identifiable assets, liabilities and contingent liabilities acquired at the date of the transaction. Under IFRS 3, at each new acquisition the companies have now to identify, value and present separately intangible assets which were previously included in goodwill (marketing, customer, artistic, contract and technology related intangibles). This will lower the amount allocated to goodwill.
- The negative goodwill is no longer recognised in the balance sheet and is taken as an immediate gain in the income statement.
- Contingent liabilities of the acquiree, recognised in the balance sheet at their fair value, may increase goodwill. Their recognition is reflected in a lower price due to the risk that such liabilities would crystallise (McDonnell, 2005).
- Goodwill impairment cannot be reversed in the future.
- Restrictions on restructuring provisions on acquisitions leave less opportunity to manipulate post-acquisition results.

Under IAS 36 'Impairment of assets', amortisation of goodwill on old and new acquisitions is no longer allowed. Goodwill is no longer seen as a wasting asset, but as one expected to maintain its value (Hadjiloucas and Winter, 2005). Instead, goodwill is tested annually for impairment and the decrease in the purchased goodwill value is charged immediately as an expense to the acquiror's income statement.

This change was applied prospectively (most companies kept goodwill at its current value and then tested it for impairment). Because goodwill does not generate cash flows directly, it must be assigned to a cash-generating unit (CGU). A CGU is defined as the smallest identifiable group of assets (generating cash inflows from continuing use) that are largely independent of the cash flows from other assets or group of assets.

Business combinations (Phase two) was one of the issues discussed at the joint meeting of IASB and FASB held on 24 and 25 April 2007 and tentative decisions were reached on alternative measurements of minority (non-controlling) interests and non-recognition of an acquired assembled workforce separately from goodwill (Ernst and Young, 2007) which proves that there are areas still under debate.

2.6.3 Advantages of IFRS 3

A goodwill impairment test captures a decline in value of goodwill, satisfies users' need for better information about intangible assets and avoids the negative impact of amortisation on reported earnings. Jennings et al. (2001) conclude that goodwill amortisation is merely noise, which provides no useful information to investors and financial analysts trying to value the companies.

The new treatment does not require goodwill to be automatically written down irrespective of the individual situation, but only if it is found to be impaired.

The impairment testing at the level of CGUs (often at a level below an operating unit) will result in 'difficulties for small units of poor-performing goodwill to conceal or subsidise by better performing goodwill from elsewhere' (KPMG, 2004).

2.6.4 Drawbacks of IFRS 3

IFRS 3 provides limited guidance on determining the fair value of intangible assets (Quilligan, 2006). 'Although IFRS 3 does not refer specifically to the use of a specialist, entities should consider what evidential matter is necessary to support the fair value measurements required to perform the allocation of costs of the acquired entity. Use of internal and external specialists and in what specific capacity is expected to vary by entity and by specific fair value measurements required' (Deloitte, 2004).

IFRS 3 does not differentiate goodwill in the same manner as IAS 38 differentiates other intangible assets (intangibles with finite useful lives are accounted for at cost, less any accumulated amortisation and any accumulated impairment losses, while intangibles with indefinite useful lives are not amortised, but tested for impairment). Goodwill and other intangibles, similar in nature, will thus be subject to different accounting treatments, diminishing comparability and reliability and 'create a serious risk of accounting arbitrage' (Simmonds and Sleigh-Johnson, 2003, Wiese, 2005).

According to a published Citigroup Investment Research 'Examining mergers and acquisitions in an IFRS world', there is some evidence that companies are allocating very low levels of the purchase cost to some other intangibles, and goodwill is still dominant despite the expectation that this would change.

As McDonnell (2005) noted, more intangible assets identified in new transactions may result in more amortisation in the future, not less and this, combined with the impact of the new treatment for negative goodwill, could result in earnings moving downwards. In recognising these assets companies need more actively involved valuation experts than has been before (Wild, 2004).

Simmonds and Sleigh-Johnson (2003) noted that the life of goodwill is known with a high degree of probability not to be indefinite in the case of goodwill arising on the acquisition of new technology businesses.

Impairment tests are complex and subjective and this makes them no less arbitrary than amortisation over a finite life.

Identification of acquired goodwill is difficult following the restructuring and combination of existing businesses (Simmonds and Sleigh-Johnson, 2003).

The identification of a CGU could be difficult when a company has acquired another company and the latter consists of a number of separate subsidiaries or branches.

Conducting a detailed test for impairment on every asset and associated goodwill from initial acquisition at the end of each reporting period may be time consuming and costly (Rockness et al, 2001 as cited by Dagwell et al, 2004).

As a result of the introduction of IAS 36, there is much scope for creative accounting by keeping the goodwill as an asset in the balance sheet without writing it off and therefore not affecting the reported profits. The management would prefer no write-off of goodwill because of the potential negative impact on share prices (Dagwell et al, 2004).

The impairment test may lead to volatility in reported earnings (Quilligan, 2006) because it involves assumptions about future cash-flows, discount rates and 'is likely to result in more 'lumpy' profit and loss figures when compared to straight line amortisation; losses will be recognised in years with a bleak future outlook, and there will be no goodwill expense at all in years with positive future outlooks (Wild, 2004).

Impairment only effectively permits capitalisation of internally generated goodwill (forbidden by the IASB Framework) and moreover results in a lack of comparability between the financial statements of acquisitive companies and those growing without recourse to acquisitions (Simmonds and Sleigh-Johnson, 2003).

2.6.5 Practical issues arising from IFRS 3 application

An analysis of IFRS 3 implementation in the FTSE 100 companies was carried out and resulted in the report 'IFRS 3: The First Year' which revealed that IFRS 3 has not been applied correctly by the majority of the companies analysed. Some £40bn was spent on acquisitions and over half of this (53%) was allocated to goodwill and only 30% to intangible assets. 'The recognition criteria under IFRS 3 are so broad that it is unlikely that much could actually be included in goodwill' (Forbes, 2007).

The same report asserts that there is no description of the factors making up goodwill as required by IFRS 3, Disclosure 66 (h).

As Forbes explains, the reasons for not identifying the intangible assets are that the intangible assets with finite lives have to be amortised, thus reducing the profit, tested annually for impairment (a fall in value must be reported, indicating management's poor performance) and that there are not so stringent criteria for goodwill impairment testing.

Other reasons for not identifying the intangibles are related to the lack of specialist skills for valuation of intangibles and a complex 'regulatory environment that bogs companies down in detailed processes… under the Sarbanes-Oxley Act, CEOs have to carefully measure any grand pronouncements about future cost savings and synergies in case they don't come off' (Krijgsman, 2007).

Krijgsman believes that people businesses, such as advertising and public relations agencies, are the worst offenders of IFRS 3 partly because the main assets walk out the door every evening and if they don't enjoy working for a newly merged entity they can leave, taking their clients with them.

The key limitations of IFRS 3 are also presented in the report:

- Out of date values: goodwill and intangible assets are stated at historic amounts and not revalued.
- Brought forward values of goodwill at the adoption of IFRS 3 are at historic cost less amortisation to which is added post IFRS 3 goodwill at the date of acquisition less impairment charges.
- Value differences: some assets will be stated at their historic valuations, and some intangibles asset values will be after charges for amortisation and impairment.
- Value overlap in revaluing assets or double counting when valuing assets separately.
- Impairment charges avoidance is seen as a highly sensitive area. In the study impairments are ascribed to changes in strategy.
- Only acquired intangibles are presented in the balance sheet.

This inadequate reporting makes the annual reports 'more useless than they currently are, it makes a standard ineffective when applied and financial bodies that govern them, it sets out a dangerous precedent for future years and it opens a new era of creative accounting that distances shareholders and investors further from reality' (Forbes, 2007).

A study by Henning et. all (2004) suggests that the US firms delayed goodwill write-offs before the enactment of SFAS 142, since a disproportionately large number of the firms in their sample recognised impairments upon the adoption of SFAS 142. Also, transition period write-offs significantly exceeded predicted write-offs, suggesting that firms might have used the transition period to minimize future write-offs.

2.7 Comparison of IFRS 3 with UK GAAP

The summary in the table 1 presented below indicates the similarities /differences between IFRS 3 and FRS10.

Table 1

Irish/UK GAAP (FRS 10)	International GAAP (IFRS 3)
Merging accounting and pooling of interest - not used any more	No merger accounting allowed, all combinations accounted for using the purchase method
Goodwill amortised over the life of the asset	Goodwill tested for impairment annually
Fewer capitalised intangible assets	More intangible assets recognised on acquisition
Details of purchase price allocation not an essential disclosure	Details of purchase price allocation need to be disclosed

2.8 Conclusion

The accounting treatment of goodwill has been a problem for standard setters since the 1970's. Following this long and hard debate, agreements have been reached under the international standards (IFRS 3, IAS 36, IAS 38, SFAS no. 141 and SFAS no. 142) on the elimination of merger accounting, goodwill being an asset distinct from other intangibles and on non-capitalisation of internally generated goodwill.

While IAS 22 required amortisation of goodwill from 1993, FRS 10 agreed on the same option starting from 1998, introducing the notion of an impairment test. In 1998, IAS 22 replaced the amortisation requirement with the impairment testing approach.

While amortisation had a small and systematic effect on the acquirers' profits, the impairment losses may cause volatility in earnings due to subjectivity in timing and amounts charged to the income statement. The positive effect on profits from the elimination of amortisation may be partially offset by the income reducing effects of the impairment write-offs.

Difficulties concerning the impairment approach are likely to appear in determining the CGU on which goodwill is to be tested, in the calculation of their fair value, and projecting cash-flows (especially in volatile industries such as high-tech and telecommunication).

The report 'IFRS 3: The First Year' indicated that the broad recognition criteria used for capitalisation of intangibles leads to avoiding their recognition. Also a reduction of profits may appear due to amortisation of intangibles with finite lives

Auditors will have to deal with the complexities and ambiguities concerning the assignment of fair value. They have to verify the identification of the CGUs, calculation of the selling price and of the recoverable amount of the CGUs based on estimates of discounted cash flows. They will also be required to 'use their professional judgement and rely on managements' abilities and integrity as well as sound corporate governance mechanisms (such as audit committees) for the fair valuation of goodwill and associated transactions' (Dagwell et al, 2004).

Disagreements between commentators currently relate to the subjectivity and complexity in calculating the amount of impairment and its timing. The impairment tests may lead to earnings' volatility and leave room for creative accounting, suggesting that even if IFRS 3, IAS 36 and IAS 38 are the latest standards on accounting for goodwill, they probably won't be the last.

Chapter 3: Research Methodology

3.1 Introduction

There is no consensus in the literature on how research should be defined. However, there seems to be agreement that it:

- is a process of inquiry and investigation
- is systematic and methodical
- increases knowledge (Collis and Hussey, 2003).

The first step in conducting research is to identify an area of interest. The first literature searches suggested that goodwill accounting is an area of considerable interest to the accounting community and this is reflected in the wide range of literature relating to the topic (master and doctoral theses, and many journal articles).

3.2 Research question/aims and objectives

The main purpose of this research paper is to answer the question:
What was/is the accounting treatment of goodwill in Ireland/UK?

The research aims and objectives associated with this question are to:

- Review and critically evaluate the accounting treatment of goodwill under the Irish/UK GAAP
- Review and critically evaluate the accounting treatment of goodwill under the IAS 22, IFRS 3 ‘Business Combinations’, IAS 36 ‘Impairment of assets’, IAS 38 ‘Intangible assets’.
- Compare IFRS 3 ’Business Combinations’, IAS 36 ‘Impairment of assets’, IAS 38 ‘Intangible assets’ with FRS 10 ‘Accounting for goodwill’ and FRS 11 ‘Impairment of fixed assets and goodwill’.
- Find out the opinions of senior accountants in the Irish listed companies regarding goodwill and associated issues
- Make suggestions for further research

3.3 Research Paradigms

The research paradigms refer to 'the progress of scientific practice based on people's philosophies and assumptions about the world and the nature of knowledge' and offer 'a framework comprising a set of theories, methods and ways of defining data' (Collis and Hussey, 2003).

The two main categories of research paradigm are positivism and interpretivism. The philosophical positions taken by the researcher have implications on how the researcher chooses the research objects and conducts and makes sense of the research.

3.3.1 Positivism

Positivism states that the only authentic knowledge can come from a positive affirmation of theories using strict scientific method (http://en.wikipedia.org/wiki/Positivism).

This approach is based on the concept that the researcher and the object of research are distinct, the object of research having a reality independent of the researcher. A positivist approach often involves gathering numerical data and subjecting it to statistical analysis. One of the main benefits of this approach is that research results can be reproduced and validated by a third party.

3.3.2 Interpretivism

An interpretivist approach to research is based on the idea that the researcher and reality exist in the same world. As a result, knowledge of the world comes from life experience and the object of research has to be interpreted in terms of the life experience of the researcher.

The interpretevist approach includes phenomenology, where an intuitive experience of phenomena is the starting point from which the essential features of experiences can be extracted (http://en.wikipedia.org/wiki/Phenomenology). Following this approach it is important that the researcher keeps in mind and deals with the issue of their subjectivity.

Collis and Hussey (2003) summarise the main features of the two paradigms in the table 3.1 presented below.

Table 3.1: Features of the two main paradigms

Positivistic paradigm	**Interpretivist paradigm**
Tends to produce quantitative data	Tends to produce qualitative data
Uses large samples	Uses small samples
Concerned with hypothesis testing	Concerned with generating theories
Data is highly specific and precise	Data is rich and subjective
Location is artificial	Location is natural
Reliability is high	Reliability is low
Validity is low	Validity is high
Generalises from sample to population	Generalises from one setting to another

Smith (2003), Saunders et al (2007) and Weber (2004) support the view that both positivist and interpretivist approaches are valid, one being neither better nor worse than the other, and that much research is actually founded on a combination of the two philosophies.

3.4 Choice of Paradigm

Reading the literature related to the area of accounting for goodwill showed that both approaches were used. For example, 'Goodwill testing and earnings management under SFAS 142' by Cowan et al (2006) makes use of regression analysis. Also 'The Australian market perception of goodwill and identifiable intangibles' by Shahwan (2002) takes a statistical approach. These both reflect the positivist approach.

On the other hand, studies such as those made by Grinyer et al (1990), Bryer (1995), Seetharaman et al (2004), and Wiese (2005) deal primarily with attitudes to the standards concerning accounting for goodwill and are conducted in the interpretivist tradition.

Initially, the author considered incorporating both approaches and spent considerable time analysing annual reports to determine what hard data relating to goodwill accounting was available. However, such data is often spread throughout reports (typically in excess of 100 pages) and is often not explicitly presented. Furthermore, the positivist research in the area seemed to be consistently at doctorate level. Given the time available and the level of the research, the author decided not to follow this approach.

The majority of papers read during the literature review were in the interpretivist tradition, using a phenomenonological approach to conduct the research and so, it was decided to follow this approach.

3.5 Research design

The research design refers to the general plan to review and evaluate the accounting standards on goodwill and the opinions of senior accountants in the Irish listed companies regarding goodwill and associated issues. The aim was to describe and explain the accounting treatment of goodwill and investigate whether the international accounting standards have solved the problems related to the previous methods of dealing with goodwill.

Collis and Hussey (2003) state that the many types of research can be classified according to the:

- Purpose of the research – the reason why it is conducted
- Process of the research – the way in which data is collected and analysed
- Logic of the research – whether it moves from general to particular, or vice versa
- Outcome of the research – whether a solution to a particular problem or a general contribution to knowledge

According to its purpose, this research can be classified as being exploratory, descriptive and explanatory at the same time.

The exploratory research focuses on gaining insights and understanding of the area at the literature review stage, to provide a base for more rigorous investigation at the primary research stage. The technique used in exploratory research is historical analysis and provides qualitative data on previous goodwill accounting standards. It also benefits from the use of interviews of industry experts: Derarca Dennis, Senior Manager at PwC and Robert Kirk, Professor of Accounting at University of Ulster.

Descriptive research ascertains and describes current international standards on goodwill and presents their characteristics. This type of research is employed in the literature review and questionnaire (open-ended questions).

Analytical or explanatory research aims to understand phenomena by discovering causal relations among them and is employed in the interviews.

Considering the approach adopted by the researcher, research can also be differentiated as quantitative (rejected for reasons already mentioned) or qualitative (is more subjective and involves examining and reflecting on perceptions of senior accountants regarding goodwill and associated issues).

According to the logic of research, in deductive research particulars are deduced from general cases, while in inductive research it is the reverse. The author chose an inductive approach, working from particular questionnaires and interviews responses to make general observations.

3.5.1 Data collection methods

The dissertation falls into two main sections.

The first is based on secondary data and describes how methods for goodwill accounting have changed over the years, identifying the strengths and weaknesses of the various approaches, and comparing the standards applied to goodwill.

The literature sources used can be organised in two sections: pre-IFRS Irish/UK GAAP and IFRSs. Key sources used for analysing these standards are financial accounting books and web summaries posted on IASplus and ASB websites. Other sources of information that support the ideas presented are journals such as: Accountancy, Accountancy Ireland, Accountancy Plus, The CPA Journal, Review of Business, Journal of Accountancy, Ohio CPA Journal, The British Accounting Review, Journal of Intellectual Capital.

The second section is based on primary data, acquired from a questionnaire (for analysing how the international accounting standards on goodwill have been received by Irish listed companies and the impact on their accounts), and from interviews with two experts in financial accounting.

The questionnaire and interviews were chosen from a range of possibilities, including focus groups, tape recorded interviews, case studies, and direct observation.

3.5.1.1 Focus groups

Focus groups are used within the interpretivist approach. Malhorta (1999) defines it as ‘an interview conducted by a trained moderator in a non-structured and natural manner with a small group of respondents’.

The use of focus groups was considered inappropriate, because of the target group make-up and it would have been difficult to get this group to participate due to their busy schedules.

3.5.1.2 Case studies

Case studies and/or direct observation were not appropriate for the research question, as the research was not concerned with investigating a phenomenon within its real-life context. This approach requires the researcher to have access to the interior of an organisation and 'the type of research questions benefiting from this approach would be where there are few theories or a deficient body of knowledge' (Collis and Hussey, 2003). The author felt this method was not appropriate.

3.5.1.3 Questionnaires

The use of a questionnaire was chosen for a number of reasons. The target group was senior accountants and it was considered impractical to meet them in person due to time and financial constraints. Although email was considered, in-depth research indicated that their email addresses were difficult, if not impossible, to get. However, the same research produced names and addresses for mail correspondence. Two US companies were excluded due to lack of American stamps for the return envelope.

Before deciding on the method the strengths and weaknesses of the questionnaire format were considered.
Some of the strengths include:

- Can be distributed to a large group
- Cheaper and less time-consuming in comparison with telephone or face-to-face interviews
- Questions are standardised, allowing for easy comparison and analysis
- Respondents can take time to consider their replies.

Some weaknesses include:

- Not getting replies
- Inability to judge the care taken in answering the questionnaire
- Difficulty in asking open-ended questions
- Respondents do not have the opportunity to question the interviewer
- The wrong person answering the questions.

In order to encourage a good response rate a cover letter promising a charitable contribution for each questionnaire completed, invited the recipient to complete and return the questionnaire in an enclosed stamped addressed envelope. A follow-up letter was sent to the companies that had not responded within seven days. Before distribution, the questionnaire was pilot tested on colleagues who made useful suggestions. The majority of questions were factual, closed questions (convenient for collecting factual data and easy to analyse) some with multiple-choice answers and three were open-ended questions (too many open-ended questions may deter busy respondents from replying).

Some of the questions looked for opinions (elicit clear responses but not permitting any flexibility by the respondents) while others used the Lickert Scale, allowing participants to give more discriminating responses (the question is turned into a statement and the respondent is asked to indicate their level of agreement with the statement).

Finally, all identifiable respondents were sent letters of thanks together with confirmation of the contribution made to the charity.

Copies of the cover letter and questionnaires are included in the appendices 2 and 3.

3.5.1.4 Interviews

As Kahn and Channell, 1957 (cited by Saunders et al, 2007) stated 'an interview is a purposeful discussion between two or more people' that allows the interviewer to gather valid and reliable data related to the research question and objectives.

Face-to-face interviews of the target group were ruled out for reasons already mentioned.

The author decided to use semi-structured key informant interviews (qualitative research interviews of specialists in the area, where the issues to be covered have been determined in advance), which allow for new insights and minimise biases before data collection. The researcher had a list of questions, which were put to the interviewees.

Tape-recorded interviews may adversely affect the interviewee/interviewer relationship, may inhibit some interviewee responses and reduce reliability, may suffer technical problems, and may involve much time to transcribe interviews after the fact (Saunders et al., 2007), so it was decided not to record the interviews.

Despite their disadvantages, interviews permit the researcher to ask more complex and follow-up questions (not possible in a questionnaire), and permit a greater confidence in the replies than questionnaires. So, the author decided to incorporate them.

3.5.2 Triangulation

Triangulation (the use of different research approaches, methods and techniques in the same study) can overcome the potential bias of a single-method approach and greater validity and reliability of results are achieved if the conclusions of different methods agree.

Jick (1979), as cited by Collis and Hussey (2003), contends that triangulation has vital strengths: it encourages productive research, enhances qualitative methods and allows the complementary use of quantitative methods. However, replication is exceedingly difficult where you have a mixed method approach, particularly where qualitative data is generated, and data collection and analysis is time consuming and expensive.

3.6 Analysing qualitative data

The main challenges associated with analysing qualitative data are related to reducing, structuring, detextualising the data in a way that allows conclusions to be drawn.

MS Excel spreadsheets were used to codify responses in order to facilitate analysis and for building tables and graphs for detextualisation.

3.7 Reliability and validity

Research findings are 'reliable' if anyone else repeating the research obtains the same results (Collis and Hussey, 2003). One way to estimate the reliability of questionnaire responses or interviews is the re-test method (the questions are asked of the same people, but on two separate occasions) but it may be impossible to get a second round of responses. Given the closed nature of many of the questions and the restricted population group it seems reasonable this research could be replicable in the future.

'Validity' relates to the question of whether or not the data collected is a true picture of what is being studied. Smith (2003) states that 'for survey methods we would anticipate the focus to be more on the reliability of the test instrument rather than on validity issues.' As a result it was felt that the issue of validity is of lesser importance in this research.

3.8 Limitations of methodology

Given the interpretivist approach adopted for this research and small target population, the main weakness is that it may be inappropriate to generalise the findings.

The reliability of the findings would have increased if the population size had been bigger, the figures from the annual accounts could have been extracted, and the response rate had been higher.

Many of the target companies have not been involved in acquisitions over the time period studied. As a result those responses provided no information about the Irish experience of the new accounting standards governing goodwill.

3.9 Conclusion

In this chapter the author discussed some of the available methodologies for conducting research and recording the results. The methodological theory was very helpful in conducting the primary research and theoretical and practical experience was gained as a result.

Chapter Four: Data Analysis and Findings

4.1 Introduction

Qualitative research was carried out using questionnaires sent to 48 out of the 50 Irish listed companies presented in Appendix 1 (two US companies were excluded as already mentioned). The response rate was 31 percent, (15 out the 48 targeted companies answered the survey). This is in line with Neuman's (2000) (as cited by Saunders et al 2007) suggestion that response rates can vary between 10 and 50 per cent for postal surveys. The follow-up letter produced two extra replies.

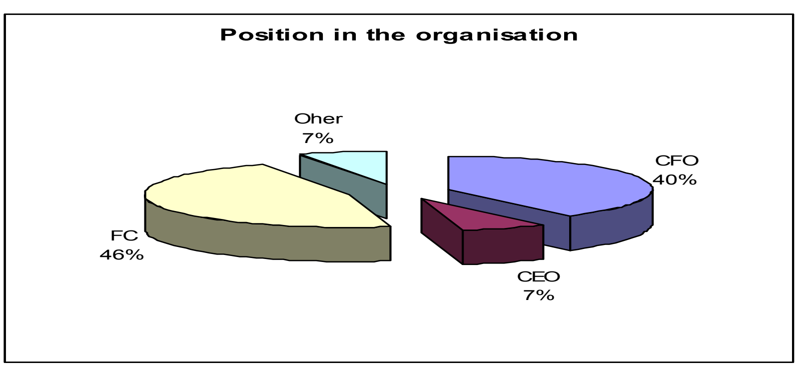
In this section the author considers the responses received and comments on them considering what she learned from the literature review and conversations with Professor of Accounting Robert Kirk (University of Ulster) and Ms Derarca Dennis, Senior Manager at PricewaterhouseCoopers.

4.2 Overview of Responses

Question two

The respondents held positions such as Chief Financial Officer and Financial Controller (as presented in figure 4.1 below), which implies that they are qualified accountants and have the relevant experience in the area of goodwill to answer the survey. This research does not suffer from a common problem of questionnaires being completed by people unqualified in the area.

Figure 4.1



Questions three and four

All respondent companies were Irish-based and only eight had been involved in acquiring subsidiaries in the last five years. The companies covered a wide range of business types, from airlines to insurance, building, and mining, to name just some.

Question five

The objective of this question was to find out if there were any cases where circumstances prescribed by FRS 11 were present and an additional impairment appeared, or if the useful life of goodwill was in excess of 20 years and goodwill had to be subject to an annual impairment test. Under the Irish/UK GAAP most of the respondent companies have used linear amortization of goodwill over a five to twenty year period. That is, before 2005, they were familiar with the impairment test only at a theoretical level. Only one of the respondents (NASDAQ-listed), with a secondary listing on Irish Stock Exchange, had used impairment prior to IAS's adoption, and did so starting in 2002, because of US GAAP requirement under SFAS 141 and SFAS 142.

Question six

When asked their opinion about amortising goodwill, answers varied from 'no longer relevant' to 'artificially reduce real annual profit' and 'neutral'. One respondent believes that 'amortisation is the most appropriate way of accounting for goodwill considering it a measure of the benefit obtained from an acquisition', and that 'not amortizing makes a company exposed to a possibly significant impairment charge at some future point.' Another opinion was that 'while not a perfect system, at least it results in the goodwill balance eventually and systematically being reduced, avoiding major one-off impairment costs.'

Derarca Dennis remarked that it depends what perspective you take: investor or accountant. From an investor's perspective it is harder to predict the amount of impairment, while from an accountant's view amortisation makes more sense, is more realistic.

Robert Kirk's response was: 'Personally, I'm a supporter of goodwill amortisation. Amortisation is easier and simpler and a good way of spreading the cost over the useful life of goodwill. The impairment test is very detailed and expensive.'

Question seven and eight

All companies involved in acquisitions answered that the application of IFRS 3 had a positive impact on the income statement, reflecting the findings of the literature review that profit increased as a result of not amortising and not impairing goodwill. Supporting this, the author has attached the relevant note from the restated accounts of CRH for the year 2004 in Appendix 5. No respondent had recorded impairment losses to date.

Ms Dennis noted that 'the impact of the application has been positive for some of the companies in the sense that they didn't have any impairment; few of the companies had impairments.'

Question nine and ten

There was unanimous agreement from the respondents with acquisitions of subsidiaries over the last five years, that impairment of goodwill has had no effect on shareholder value. In addition, all respondents stated there was no effect on share price due to the implementation of the new standards on goodwill. The reason for this stated by one of the respondents was: 'amortisation of goodwill was already being added back by most investors/analysts'. Derarca Dennis believes that impairment of goodwill can affect shareholder value when there is limited information at the acquisition time and an incorrect assessment is made.

Question eleven

All respondents involved in acquisitions carried out impairments tests annually as IAS 36 prescribed. Although impairment charges primarily depend on the particular circumstances of a company, the answer given suggests that 'the requirements of IAS 36 put more emphasis on the 'routine' and formalised nature of the process of impairment testing' (Ernst and Young, 2006). Also there may be possibly 'practical limitations to the ability to test at different times during the year' (Deloitte, 2004).

Question twelve

The objective was to determine whether IFRS 3 makes it easier to identify what has been acquired. Twelve and a half percent of respondents answered that it is easier, twelve and a half percent didn't know, while the remaining seventy-five percent said that it's not easier. A possible response would be that IFRS 3 makes the due diligence process more rigorous and forces deal makers to focus on (and justify) what they are really buying.

Question thirteen

Thirty-seven and a half percent of respondents use specialised independent experts for valuing intangible assets, while the remainder use in-house valuation services. Ms Dennis's remark was that 'it depends on the size of the organisation. Large companies usually value their intangibles in-house while small companies are looking for independent advice.'

As referred to earlier, regardless of whether the particular fair value measurement is prepared internally or with the assistance of an outside specialist, the level of evidential matter necessary to support the conclusions of the entity is expected to be similar.

Question fourteen

Another point of interest is the effect that the new standards have had, or might have, on potential acquisitions. There is agreement that the new standards have had no influence on potential acquisitions. This was explained by Ms. Dennis, who pointed out that 'acquisitions take place because it makes commercial sense, regardless of accounting standards'. The aim of acquisitions is to increase cash flows and maximise shareholders' return and since goodwill impairments are not included in the cash flow, IFRS 3 has no impact on acquisition decisions.

Question fifteen

Regarding the abolition of merger accounting, there is broad agreement (seventy-five percent) that this has not discouraged high profile combinations. Donal Woodcock, head of group finance at Irish Life and Permanent plc, remarked that 'the merger of Irish Life with Irish Permanent would not have happened without merger accounting'. As Robert Kirk put it 'FRS 6 Mergers and Acquisitions was very good' but 'America rules out the world and they want their ideas pushed around'.

Question sixteen

When valuing a target company, the preferred methods were the discounted cash flow (considered conceptually correct and used when there is no market evidence) and benchmark comparisons. Other methods mentioned were net margin and growth potential. More than one valuation approach was considered.

Ms. Dennis noted that 'the methods used to value a target company depend on whether this is a private or public company, its size and structure, information available; market capitalisation method is the easiest and most common. Declining royalty is also used.'

Question seventeen

The intangible assets identified when a subsidiary is acquired, in descending order according to the number of times cited, were marketing related (6), customer related (6), technology-based (5), contract-based (4), and artistic related (1). Another intangible asset mentioned by one respondent was that of airport slots.

Question eighteen

The question's objective was to identify cases where the useful life of goodwill is not known to be indefinite and implicitly if there are cases where goodwill should be amortised. Only two respondents gave such examples ('single customer companies with a maturing seller contract' and 'small companies with a finite pipeline of business') and this suggests that it would be possible in very few cases. One can argue that small businesses with a finite pipeline are not listed so IFRSs requirements regarding goodwill do not apply.

Robert Kirk's opinion is that 'purchased goodwill is replaced with your own and this takes about seven or eight years. Purchased goodwill has a definite life and that's why I encourage amortisation.'

Question nineteen

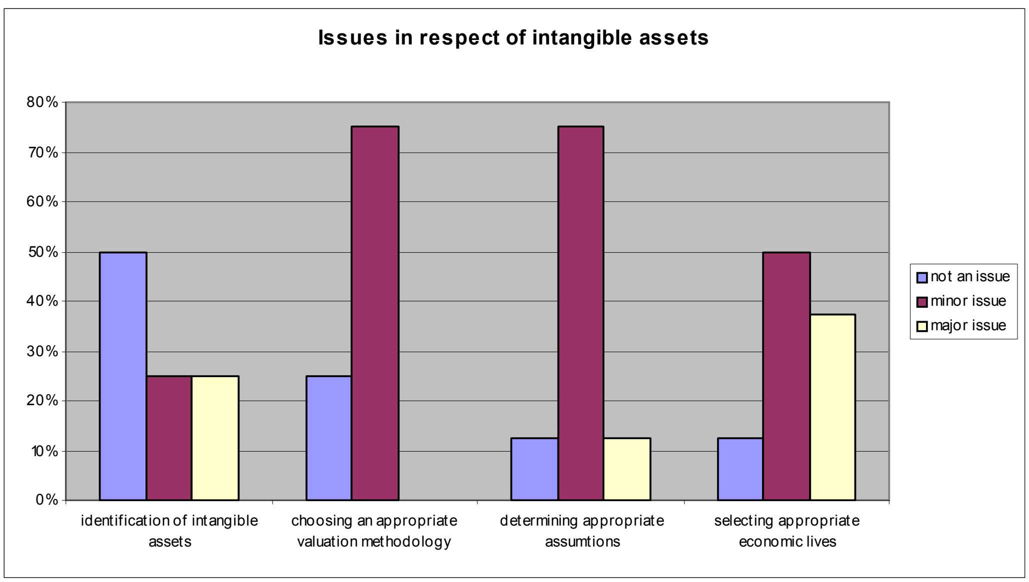
Sixty-three percent of respondents agreed that the identification of acquired goodwill was not problematic in practice. As Ms. Derarca stated 'when an acquisition figure appears in a press statement release, the CFOs identify the reasons for buying, and they end up identifying what you believe is goodwill, synergies, increased revenues and cost savings, skilled workforce, and sometime distribution channels or deferred tax. It's not hard to identify goodwill; the problem is that all this information is not verbalised or translated into disclosures and published in the accounts.'

Robert Kirk believes that the major problem areas in identifying goodwill are that 'people deliberately try to rename goodwill and create artificial assets. Customer relations are dubious. There is a lot of guesswork involved, for example economic life is one person's opinion and you can know it with hindsight, not foresight. You have to look each year.'

Question twenty

The majority of respondents noted that the issues in respect of intangibles are related to choosing an appropriate valuation methodology, determining the appropriate assumptions and selecting appropriate economic lives for each item (figure 4.2). The companies with no issues in this area are possibly the ones using specialised valuation services.

Figure 4.2

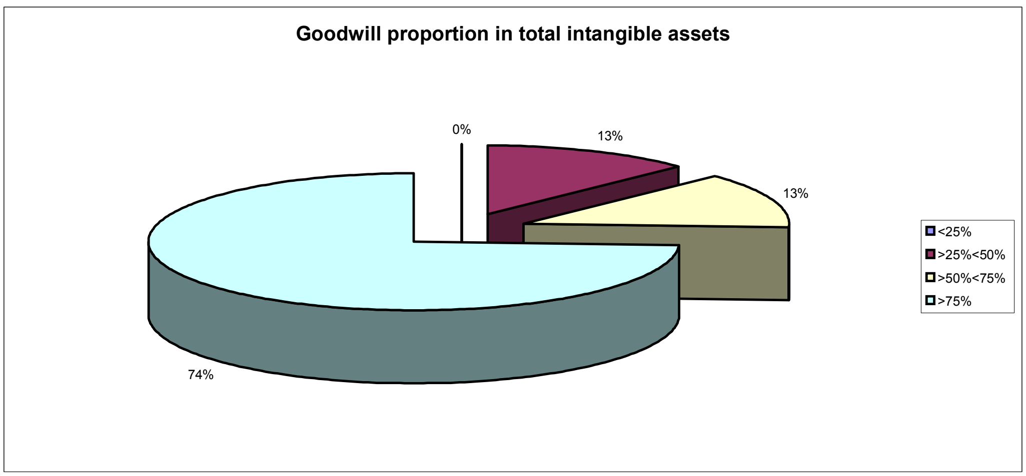


Question twenty-one

The proportion of the amount paid on the acquisition of a subsidiary allocated to goodwill varied. 'This can very significantly depend on the type of business acquired' as one financial controller answered. Thirty-eight per cent stated that the proportion was somewhere between 25% and 50% of the acquisition cost. Another thirty-eight per cent stated the proportion to be between 50% and 75% of the acquisition cost. One respondent stated the percentage to be greater than 75% (a recently listed company with eighty percent of assets representing intangibles). Robert Kirk believes that 'goodwill acquired is a very subjective figure; different people have different views as to what goodwill is worth' and that goodwill proportion would be 'about fifty percents of purchase price and, as you move to manufacturing or services goodwill gets bigger (seventy percents).'

The 2006 annual published accounts of the respondents were reviewed. The findings from this (presented in the figure 4.3) indicated that goodwill proportion in total intangibles was somewhere between 25% and 50% for one respondent. For another the proportion was between 50% and 75% of the total intangibles. Six respondents had a percentage greater than 75%.

Figure 4.3

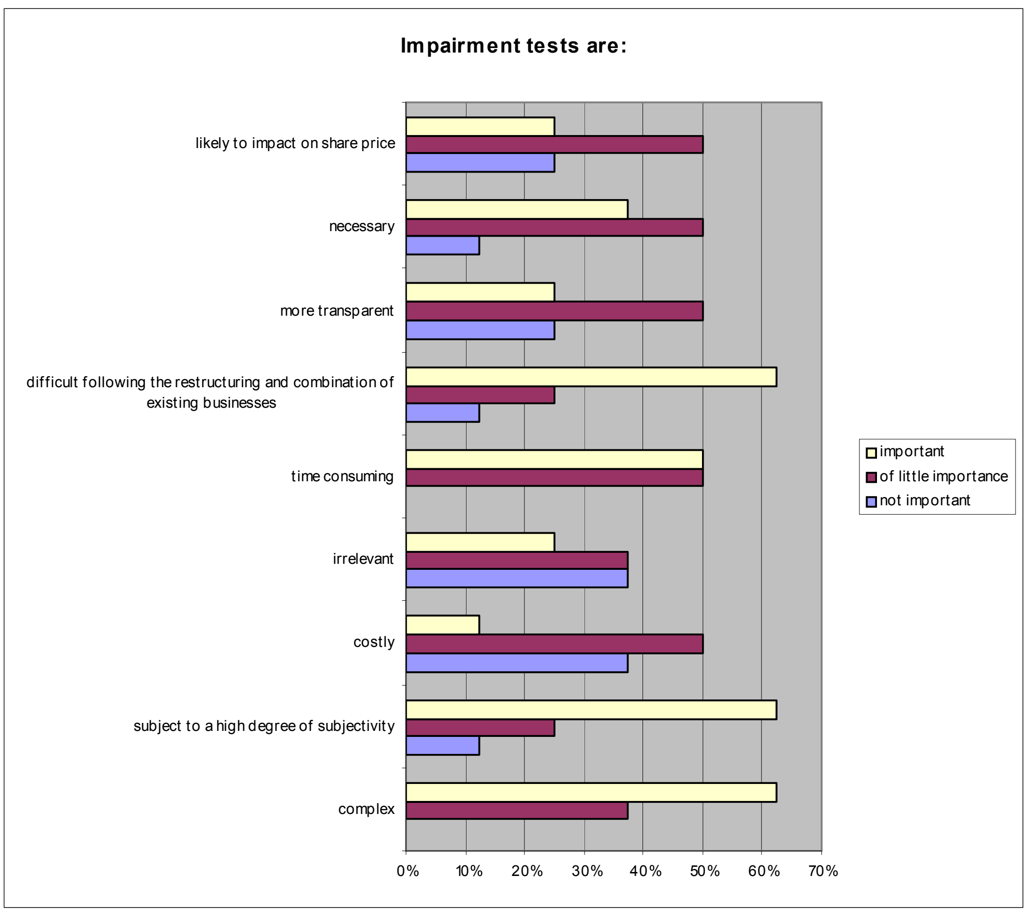


Ms Dennis' opinion was that 'the goodwill proportion in total intangibles is ridiculously high and there should be pressure on people to report more intangibles.'

Question twenty-two

Respondent's opinions on impairment tests were varied. As presented in the figure 4.4, the majority agreed that impairment tests are complex, subject to a high degree of subjectivity and difficult following the restructuring and combination of existing businesses. There was a divergence of opinion regarding cost, relevance, transparency, necessity, and effect on share price. Most agreed that impairment tests are time consuming.

Robert Kirk believes that impairment tests are very complex. ‘After the individual asset or group of assets affected is identified, usually within the primary or secondary segments of the business, companies have to determine discounted cash flows, how many years in the future are considered (five years or more) and the discount rate to use, bring in risk and uncertainty and all these are very, very subjective and time consuming. You can look at the impairment disclosures of CRH, UTV, Readymix, Kingspan.’ CRH disclosures on goodwill are presented in Appendix 6.
Ms. Dennis holds that ‘impairment tests are very important. They are not new, but there is not a common format to use. The requirement to disclose should make things more transparent, but this is not achieved in practice; companies did it in different ways and you are not able to compare. The impairment test would require a huge amount of disclosure and this would add to the length of the published accounts.’
Figure 4.4



Question twenty-three and twenty-four

Most of the companies identified the CGUs at the business and geographic level.

Derarca Dennis noted that ‘in practice levels such as individual locations, regional areas or business unit are used to determine the cash generating units; certainly not at product line level – this would be the aspirational level.’
According to IAS 36, the level at which management monitor goodwill for internal management purposes is the lowest level at which it reviews the success of an acquisition (PwC, 2007).

Changes in the CGUs initially segregated for impairment or other purposes were present in sixty-two percent of the responses and may appear following acquisitions or restructuring of assets.
Robert Kirk mentioned that companies are not supposed to change the CGUs (except restructurings and acquisitions) as goodwill is allocated from day one of the acquisition and companies must provide information on how impairment is arrived at.

Question twenty-five

There was a unanimous “no” response to the question asking if it is now easier to assess whether or not an acquisition is profitable and adds shareholder value. This is in line with the responses to questions nine and ten.
Derarca Dennis’ answer was: ‘Probably not. Not on day one of acquisition. More indicators later on will signal if the acquisition is profitable or not. In three years time, for example, if the impairment indicators are present, an impairment charge may show that the business is not performing as it was envisaged.’

She also concluded: ‘Theoretically the accounting standards on goodwill make the acquisition more transparent and offer a better view of what has been acquired. In practice people did a fantastic job in applying the international standards; if they missed things this is because they didn’t have adequate time to concentrate on details when a lot of change was going on. By 2007 they got to grips with the standards and now, in this stable period when no new standards are being issued, they have time to dedicate to details.’

4.3 Conclusion

The objective of the questionnaire was to obtain the opinions of the senior accountants on the practical impact of goodwill impairment in comparison with the amortisation method previously applied.
The views obtained reflect the divergent opinions on the accounting treatment of goodwill presented in the literature review.

Most responses suggest that amortisation of goodwill would be preferred over impairment. Amortisation is easier and more realistic than the impairment test, which is considered complex, subjective and time consuming. While the amortisation systematically reduces the goodwill balance, an impairment loss can lead to fluctuations in the accounts.

Keeping goodwill as an asset in the balance sheet without writing it off and therefore not affecting the reported profits would be preferred by management because of the potential negative impact on share prices (Dagwell et al, 2004).

The goodwill proportion in total intangibles is over seventy-five percent for most respondents and this suggests there should be pressure on companies to report more intangibles.

Chapter Five: Conclusions and Recommendations

5.1 Introduction

This chapter presents the implications of the findings, limitations of this research and makes suggestions for future research.

5.2 Implications of the main findings

The first objectives were to review and critically evaluate the accounting treatment of goodwill under Irish/UK GAAP and under the IAS and to compare them.

The literature review in chapter two provides evidence of standard setters' efforts to solve the issues surrounding the accounting treatment of goodwill.
Over the past forty years, the main accounting treatments used in Ireland and the UK for dealing with purchased goodwill in group accounting included:

- Immediate write-off against profits or reserves
- Capitalisation and amortisation against future profits over its 'useful economic life
- Capitalisation, amortisation and/or impairment
- Capitalisation and impairment

While each method had its own benefits, the weaknesses out-weighed the benefits subsequently leading to the dismissal of the write-off and amortisation methods in favour of the impairment test.

The UK accounting standard setters have followed (with a time lag) the US accounting rules for purchased goodwill in permitting, restricting and forbidding merger accounting, and in requiring and prohibiting purchased goodwill amortisation. The novel element brought in 1998 by the UK's ASB, before the US's FASB, was the impairment review prescribed in FRS 10 and dealt with in FRS 11 as an alternative to amortisation.

‘Overall the international accounting standard on impairment (IAS 36) is very similar to the national standard, FRS 11. However, listed companies complying with IAS 36 now have to disclose much more information in their accounting policies note, but also much more on the overall methodology adopted by the company in its impairment review. Financial reporting of impairments has now become much more transparent’ (Kirk, 2006).

Another objective was to find out the opinions of senior accountants in Irish listed companies regarding the IASs on goodwill.
Most of the responses suggest that amortisation of goodwill would be preferred from a practical point of view. While amortisation had a small and systematic effect on the acquirers’ profits, the impairment losses are likely to cause volatility in earnings due to subjectivity in timing and amounts charged to the income statement. The positive effect on profits from the elimination of amortisation may be partially offset by the income reducing effects of the impairment write-offs.

The questionnaire’s results prove that ‘considerable judgement is required in applying IFRS 3, including the identification and valuation of intangible assets and contingent liabilities, determination of appropriate assumptions to be used in complying with the impairment testing requirements of IAS 36, and the determination of useful lives for intangible assets in accordance with IAS 38’ (Deloitte, 2004).

The results of the literature review, questionnaire and interviews suggest that there are some problem areas in accounting for goodwill under the international standards. Such problem might be that ‘people deliberately try to rename goodwill and create artificial assets’ (Kirk). This is no surprise as this was also the position under SSAP 22. So it seems that history repeats itself. Another issue is that goodwill proportion of total intangibles is over seventy-five percent for most respondents and there should be pressure on companies to report more intangibles.

Unlike American companies, where large impairment losses were recorded in the transition year (suggesting that management overpaid for acquisitions or had considered the transition as an opportunity to clear up the balance sheet), in Ireland none of the respondents of the questionnaire recorded impairment losses. This may change three or four years from the standard's implementation when impairment losses may be recorded.

The results of this research suggest that there is potential to revert to amortisation.

5.3 Future research

The issue of goodwill accounting should be reviewed again in a few years when more firms have had "hands-on" experience of making acquisitions under the new standard. At that time too there would be more numerical data that might allow for a numerical/positivist approach to be taken and compared with the US and Australian experiences of similar standards.

As not all companies included in the questionnaire were involved in acquisitions in the last five years, this study could be carried out only on acquisitive companies, by interviewing their senior accountants.

Further investigation is considered appropriate in the area of the impairment process (how Irish listed companies are dealing with it, what effect it has on the accounts a few years after the adoption, what are the main indicators of impairment), and the fair value measurement 'one of the least well addressed aspects of financial reporting as a whole' (Ernst and Young, 2007) of intangible assets, including goodwill.

IFRS 8, issued in November 2006, will replace IAS 14 Segment Reporting from 1 January 2009 changing the basis for identifying segments, which 'may impact the allocation of goodwill for impairment testing under IAS 36 Impairment of assets' (Ernst and Young, 2007) and this is another area that could be investigated.

5.4 Limitations of the study

This study is limited by the fact that interviews were taken only from two key specialists involved in the practical application of IASs. A broader view would have been obtained if the author were able to interview the senior accountants of the major acquisitive companies in Ireland.

As Zikmund (1997) noted ‘qualitative research is subjective in nature’ and ‘much of the measurement depends on evaluation by the researcher rather than rigorous mathematical analysis while ‘quantitative research provides an exact approach to measurement’. Although exploratory research has many advantages, it has also several shortcomings (the interpretation of the findings is based on judgement, samples are not representative, they rarely provide precise, quantitative measurement, and the ability to generalise the quantitative research is limited) and should not take place of conclusive, quantitative research.

References

Books:

🗀Alexander, D., Britton, A. (1996) *Financial Reporting*, (4th ed.), Thomson Publishing, London.

🗀Alexander, D., Britton, A., Jorissen, A. (2004) *International Financial Reporting and Analysis,* Thomson Publishing, London.

🗀Arnold, J. et al, (1994). *Financial Accounting***,** Prentice Hall, Harlow, Essex.

🗀Black, G., (2003) *Students' guide to accounting and financial reporting standards*, (9th ed.), Prentice Hall, Harlow.

🗀Collis, J., Hussey, R. (2003) *Business research - A practical guide for undergraduate and postgraduate students,* (2nd ed.), Palgrave Macmilllan, Great Britain.

🗀Elliot, B., Elliot, J. (2004) *Financial Accounting and Reporting*, (8th ed.), Prentice Hall, Essex, England.

🗀Elliot, B., Elliot, J. (2006) *Financial Accounting and Reporting*, (9th ed.), Prentice Hall, Essex, England.

🗀Hughes, H. P. (1982) *Goodwill in accounting: A history of the issues and problems.* Research monograph No. 80. Atlanta: Business Publishing Division, College of Business Administration, Georgia State University.

🗀Lewis, R., Pendrill, D. (1994) *Advanced Financial Accounting*, (4th ed.), Pitman Publishing, London.

Lewis, R., Pendrill, D. (1996) *Advanced Financial Accounting*, (5th ed.), Pitman Publishing, London.

Lewis, R., Pendrill, D. (2000) *Advanced Financial Accounting*, (6th ed.), Pearson Education Ltd, England.

Lewis, R., Pendrill, D. (2004) *Advanced Financial Accounting*, (6th ed.), Pearson Education Ltd, Glasgow.

Reilly, R., Schweihs*, R.* (1998) *Valuing Intangible Assets* McGraw-Hill, New York.

Sangster, A. (1995) *Workbook of Accounting Standards* (3rd ed.), Pitman Publishing, England.

Sangster, A. (1997) *Workbook of Accounting Standards*, (4th ed.), Pitman Publishing, London.

Saunders, M., Lewis, P., and Thornhill, A. (2007) '*Research Methods for Business Students* ' (4th ed.), Prentice Hall, England.

Smith, M., *Research methods in accounting*, (2003), Thousand Oaks: Sage Publications, London.

Wood, F., Sangster, A. (1999), *Business Accounting*, (8th ed.), Pitman Publishing, London.

Articles and websites:

Bryer, R.A. (1995) 'A political economy of SSAP 22: Accounting for goodwill', *The British Accounting Review,* Vol 27, Issue 4, December, pp.283-310.

Cole, M. (2005) 'Acquisition Activity in 2005' CFM Capital

Cowan, A., Dilla, W., Jeffrey, C. (2006) ‘Goodwill Testing and Earnings under SFAS 142’

Dagwell, R., Windsor, C., Wines, G. (2004) ‘The proposed goodwill impairment test - implications for preparers, auditors and corporate governance’ (cited 16 December 2006) Available from <URL:http://www.griffith.edu.au/school/gbs/afe/symposium/proceedings/dagwell_windsor_wines.pdf#search=%22intangible%20assets%20thesis%20goodwill%22>

Deloitte, (2004) ‘Business combinations – A guide to IFRS 3’ August

Deloitte, (2006) ‘Valuing intangible assets – What are they really worth?’ January

Deloitte, (2007) ‘Management briefing: Driving shareholder value – Mergers and acquisitions’ May. (cited 8th June 2007) Available from <URL: http://www.deloitte.com/dtt/cda/doc/content/Management%20Briefing%20-%20May%202007.pdf >

Ernst and Young, (2007) ‘Global eye on IFRS –Insights on International GAAP’ June. (cited 25th June 2007) Available from <URL:http://www.ey.com/Global/assets.nsf/International/IFRS_Global_EYe_on_IFRS_June_2007_print/$file/Global%20EYe_June%202007_print.pdf >

Ernst and Young, (2007) ‘Converting to IFRS - An analysis of implementation issues’ (cited 25th June 2007) Available from <URL: http://www.ey.com/Global/assets.nsf/International/Converting_to_IFRS_Nov06/$file/EY_ConvertingIFRS_Nov06.pdf>

Financial Accounting Standard Board (FASB). 2001. *Summary of Statement No. 141 Business Combinations,* June. (cited 2 November 2006) Available from <URL:http://www.fasb.org/st/summary/stsum141.shtml>

Financial Accounting Standard Board (FASB). 2001. *Summary of Statement No. 142 Goodwill and Other Intangible Assets*. June. (cited 2 November 2006) Available from <URL:http://www.fasb.org/st/summary/stsum142.shtml>

Forbes, T. (2007), "The failure of IFRS 3", *Intellectual Asset Management*, January.

Grinyer, J.R, Russell, A. and Walker, M. (1990), "The rationale for accounting goodwill", *The British Accounting Review*, September, Vol.22 No.3, pp. 223-235

Hadjiloucas, T., Winter, R. (2005) *Reporting the value of acquired intangible assets*, Globe White page. (cited 25 November 2006) Available from <URL:http://www.wipo.int/academy/en/execed/sipm/goa_mar_07/pdf/Reporting-value-05.pdf.>

Harrington, A. (1999). "FRS 10: Goodwill and intangible assets". *AccountingWEB*.

Henning, S.L., Shaw, W.H., and Stock, T. (2004) "The amount and timing of goodwill write-offs and revaluations: evidence from US an UK FIRMS", *Review of quanitative finance and accounting,* Vol. 23, No. 2, p.99-121.

Houillon, P., Clendon, T. (1999) "Goodwill and Intangible Assets – FRS 10 Study material - Paper 13" (cited 22 February 2007) Available from <URL: http://www.btinternet.com/~paper13/frs10.htm>

International Accounting Standard Board (IASB). 2002. *Business combinations, IAS 22*, December. London: IASC.

International Accounting Standard Board (IASB). 2004. *Business combinations, IFRS 3.* March. London: IASC.

International Accounting Standard Board (IASB). 2004. *Impairment of assets, IAS 36*. March. London: IASC.

International Accounting Standard Board (IASB). 2004. *Intangible assets, IAS 38.* March. London: IASC.

Jennings, R., Leclere, M.J., Thompson, R.B. (2001) "Goodwill amortisation and the usefulness of earnings". *Financial Analyst Journal*, Vol. 57, No.5, September/October.

King, K. (2001) 'The value of intellectual property, intangible assets and goodwill' October. (cited 4th June 2007) Available from <URL:http://scientific.thomson.com/free/ipmatters/acctecon/8199544/ >

Kirk, R., (2006) "Impairment testing to become more transparent", *Accountancy Plus*. Dublin: Dec., Iss. 4; p. 12.

KPMG, (2006) "IFRS 3 Business combinations – Valuing acquired intangibles". Advisory, May.

Krijgsman, P. (2007) "IFRS 3: Dark Matter", *Corporate Financier,* March.

McDonnell, J. (2005) "IAS 36 Impairment of Assets". *Accountancy Ireland.* December. Vol. 37, Iss. 6; p. 17.

Patterson, R. (2002) "Straining Goodwill" *Accountancy* London: June, Vol.129, Iss. 1306; pg.101.

PricewaterhouseCoopers, (2007) 'IFRS News – Shedding light on the IASB's activities' April.

Quilligan, L. (2006)"Intangible Assets identification and valuation under IFRS 3" *Accountancy Ireland***.** June. Vol. 38, Iss. 3, p. 10.

Reilly, R. (2005) 'Accounting for goodwill in purchase price allocations' *Valuation Strategies*; Nov/Dec, Vol 9, Iss.2, pg.30.

Seetharaman, A., Balachandran, M., Saravanan, A.(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.131-152.

Simmonds, A., Sleigh-Johnson, N. (2003) "Business Combinations: Fundamentally Impaired" *Accountancy*. London: June, Vol.131, Iss. 1318; pg.100.

Stein, N. 1998, FRS 10 Goodwill and intangible assets, ACCA

Weber, R. (2004) 'The Rhetoric of Positivism Versus Interpretivism' *MIS Quaterly* Vol. 28 No. 1 pp. iii-xii/March (cited 04 June 2007) Available from <URL:www.misq.org/archivist/vol/no28/issue1/EdCommentsV28N1.pdf >

Wiese, A. (2005), "Accounting for goodwill: The transition from amortisation to impairment – an impact assessment", *Meditari Accountancy Research,* Vol.13 No.1, pp.105-120.

Wild, K. (2004), "IAS: The latest word on mergers", *Accountancy Age*, June

Williams, P. (2007), "M&A needs goodwill from IFRS", *Financial Director*, February. (cited 28th February 2007) Available from <URL: http://www.accountancyage.com/financial-director/analysis/2183877/needs-goodwill-ifrs>

PHD theses:

Bloom, M., Double Accounting for Goodwill- A Problem Redefined, University of Sydney. Business and Economics. 27 March 2006. (cited 15 February 2005) Available from <URL:http://ses.library.usyd.edu.au/handle/2123/705>

Shahwan, Y. (2002) 'The Australian market perception of goodwill and identifiable intangibles', University of Western Sydney. (cited 13 June 2007) Available from <URL: http://library.uws.edu.au/adt-NUWS/public/adt-NUWS20030925.150453/index.html>

Appendix 1 Irish Listed Companies

1. Abbey National plc
2. Aer Lingus
3. AGI Therapeutics plc
4. Alltracel Pharmaceuticals plc
5. Amarin Corporation plc
6. Aminex Petroleum Services Limited
7. Anglo Irish Bank
8. Aviva
9. Bank of Ireland
10. Blackrock International
11. C&C Group
12. Calyx
13. CPL plc
14. CRH – International Building Material Group
15. Datalex
16. DCC plc
17. Dragon Oil
18. Elan Corporation plc
19. FBD Holdings plc
20. Fyffe
21. Getmobile Europe plc
22. Glanbia plc
23. Glencar Mining
24. Grafton Group plc
25. Horizon Technologies Group
26. IAWS Group plc
27. IFG Group
28. IONA
29. Irish Estates
30. Irish Life & Permanent plc
31. Irish Stock Exchange
32. Kenmare Resources plc
33. Kerry Group
34. Kingspan Group plc
35. McInerney Holdings plc
36. Minmet plc
37. Oakhill Group plc
38. Ormonde Mining plc
39. Ovoca Gold
40. Petrel Resources plc
41. Petroceltic International plc
42. PetroNeft Resources plc
43. Providence Resources
44. Qualceram
45. Readymix plc
46. Ryan Air
47. ThirdForce plc
48. Trinity Biotech plc
49. UTV
50. Viridian

Appendix 2

Cover letter

Dear Sir/Madam

My name is Raveica Leeney and I am currently completing a thesis as part of the Masters in Accounting at Letterkenny Institute of Technology under the supervision of Financial Accounting lecturer Sinead Gallagher.

The thesis is entitled “An investigation into the accounting treatment of goodwill in Ireland” and the aim is to obtain information about the impact that international standards on goodwill have on the financial statements of Irish Listed Companies.

In order to conclude this study I need your help by completing the attached questionnaire. I can assure you that all the information obtained will be treated in the strictest confidence. Access to the completed questionnaires will be restricted to my supervisor and myself.

The questionnaire should take about fifteen minutes to complete. Enclosed is a prepaid envelope for return of the questionnaire. For every returned questionnaire I will donate €5 to Our Lady's Hospital for Sick Children in Crumlin.

If you could complete and return the questionnaire by the 19th of June I would be most grateful. If you would like a summarised copy of my study please state so on the last page of the questionnaire and I will forward it to you on its completion.

Thank you for your time and co-operation.

Yours sincerely

Raveica Leeney

Appendix 3

Questionnaire

1. Company name____

2. What is your position in the organisation?
   - ❑ CEO
   - ❑ CFO
   - ❑ Head Accountant
   - ❑ Financial Controller
   - ❑ Manager
   - ❑ Other

3. Is your company
   - ❑ an Irish-based company
   - ❑ subsidiary of a foreign company

   If a subsidiary, is it located in a country that complies with IFRS?
   - ❑ Yes
   - ❑ No

4. Has your group company acquired any subsidiaries over the last five years?
   - ❑ Yes
   - ❑ No – no need to go any further, please return the questionnaire

   If yes, how many __________

5. How was goodwill accounted for before the adoption of IFRS 3?
   - ❑ Amortisation
   - ❑ Impairment

6. What is your opinion on amortising goodwill ______________________________
____
____
____

7. What is the impact, if any, of the application of IFRS 3 on the income statement?
   - ❑ Positive (example: no impairment)
   - ❑ Negative (example: impairment exceeds amortisation)
   - ❑ Quantify, if possible:

     2004 €____________________ 2005 € ____________________

8. If there has been an impairment of goodwill, what was the amount involved?

   2004 €____________________

   2005 €____________________

9. Do you feel that impairment of goodwill has affected the shareholder value?
   - ❑ Yes
   - ❑ No

10. In your opinion, what effect have the new standards on goodwill had on your company's share price?

- ❑ Positive
- ❑ Negative
- ❑ No effect

11. Is an impairment review carried out annually on goodwill?

- ❑ Yes
- ❑ No

12. Does IFRS 3 make it easier to identify what has been acquired?

- ❑ Yes
- ❑ No

13. Does your company use specialised valuation services for intangible assets?

- ❑ Yes
- ❑ No

If yes, are the valuation services performed

- ❑ In house
- ❑ By independent experts

14. Does the change in the way goodwill is being accounted for under the international standards (IFRS 3, IAS 36 and IAS 38) have any influence on potential acquisitions?

- ❑ Yes
- ❑ No

15. Do you think that the abolition of merger accounting has discouraged some high profile combinations?

- ❑ Yes
- ❑ No

16. How does your company put a value on a target company?

- ❑ Market capitalisation method
- ❑ Declining royalty approach
- ❑ Discounted cash-flow method
- ❑ Benchmark comparisons
- ❑ Others, please specify ____

17. What intangible assets are normally identified when a subsidiary is acquired?

- ❑ Marketing related
- ❑ Customer related
- ❑ Artistic related
- ❑ Contract based
- ❑ Technology based
- ❑ Others, please specify____

18. Could you suggest cases where the useful life of goodwill is not known to be indefinite? Example:

- ❑ Goodwill arising on the acquisition of new technology businesses
- ❑ Others, please specify____

____

19. Is the identification of acquired goodwill problematic in practice?

- ❑ Yes
- ❑ No

If yes, what are the major problem areas _____________________________________

____

____

____

20. Issues in respect of intangibles are related to
(0 – not an issue, 1 – minor issue, 2 – major issue)

a) identification of intangible assets
   0 ☐ 1 ☐ 2 ☐
b) choosing an appropriate valuation methodology
   0 ☐ 1 ☐ 2 ☐
c) the determination of appropriate assumptions
   0 ☐ 1 ☐ 2 ☐
d) selecting appropriate economic lives for each item or category
   0 ☐ 1 ☐ 2 ☐

21. On average, what proportion of the amount paid on the acquisition of a subsidiary is allocated to goodwill:

- ❑ <25%
- ❑ >25%<50%
- ❑ >50%<75%
- ❑ >75%

22. In your opinion, impairment tests are:
(0 - not important, 1 – of little importance, 2 – important)

a) Complex
   0 ☐ 1 ☐ 2 ☐
b) Subject to a high degree of subjectivity
   0 ☐ 1 ☐ 2 ☐
c) Costly
   0 ☐ 1 ☐ 2 ☐
d) Irrelevant
   0 ☐ 1 ☐ 2 ☐
e) Time consuming
   0 ☐ 1 ☐ 2 ☐
f) Difficult following the restructuring and combination of existing businesses
   0 ☐ 1 ☐ 2 ☐

g) More transparent
0 ☐ 1 ☐ 2 ☐

h) Necessary
0 ☐ 1 ☐ 2 ☐

i) Likely to impact on share prices
0 ☐ 1 ☐ 2 ☐

23. What criteria are used by your company to determine the cash generating units?
- ❑ Management monitoring of the entity's operations
  - ☐ product lines,
  - ☐ individual locations,
  - ☐ districts or regional areas
- ❑ Management's decisions about continuing or disposing of the entity's assets and operations

24. Is there ever a change in the cash generating units, which are initially segregated for impairment or other purposes?
- ❑ Yes
- ❑ No

25. Is it now easier to assess whether or not an acquisition is profitable and adds shareholder value?
- ❑ Yes
- ❑ No

26. If there is any other information that you believe is relevant to my research area, please disclose it here____
____
____
____
____

27. I would like to receive a summarised copy of the research
- ❑ Yes
- ❑ No

Appendix 4

Answers to questionnaire

1. Company name____

2. What is your position in the organisation?

❑ CEO	1	7%
❑ CFO	6	40%
❑ Head Accountant		
❑ Financial Controller	7	47%
❑ Manager		
❑ Other	1	7%

3. Is your company

❑ an Irish-based company	15	100%
❑ subsidiary of a foreign company	0	0%

If a subsidiary, is it located in a country that complies with IFRS?

- ❑ Yes
- ❑ No

4. Has your group company acquired any subsidiaries over the last five years?

❑ Yes	8	53%
❑ No – no need to go any further, please return the questionnaire	7	48%

If yes, how many __________

5. How was goodwill accounted for before the adoption of IFRS 3?

❑ Amortisation	8
❑ Impairment	1

6. What is your opinion on amortising goodwill ______________________________

____

____

____

7. What is the impact, if any, of the application of IFRS 3 on the income statement?

❑ Positive (example: no impairment)	8	100%
❑ Negative (example: impairment exceeds amortisation)		
❑ Quantify, if possible:		

2004 € _____________ 2005 € _______________

8. If there has been an impairment of goodwill, what was the amount involved?

2004 € _______________ 2005 €__________________

9. Do you feel that impairment of goodwill has affected the shareholder value?

❑ Yes	0	0%
❑ No	8	100%

10. In your opinion, what effect have the new standards on goodwill had on your company's share price?

❑ Positive	0	0%
❑ Negative	0	0%
❑ No effect	8	100%

11. Is an impairment review carried out annually on goodwill?

❑ Yes	8	100%
❑ No	0	0%

12. Does IFRS 3 make it easier to identify what has been acquired?

❑ Yes	1	12.50%
❑ No	6	75.00%
❑ Don't know	1	12.50%

13. Does your company use specialised valuation services for intangible assets?

❑ Yes	3	37.5%
❑ No	5	62.5%

If yes, are the valuation services performed

❑ In house	3	37.5%
❑ By independent experts	5	62.5%

14. Does the change in the way goodwill is being accounted for under the international standards (IFRS 3, IAS 36 and IAS 38) have any influence on potential acquisitions?

❑ Yes	0	0%
❑ No	8	100%

15. Do you think that the abolition of merger accounting has discouraged some high profile combinations?

❑ Yes	2	25%
❑ No	6	75%

16. How does your company put a value on a target company?

❑ Market capitalisation method	2
❑ Declining royalty approach	0
❑ Discounted cash-flow method	5
❑ Benchmark comparisons	4

Others, please specify ________________________________ 0

17. What intangible assets are normally identified when a subsidiary is acquired?

❑ Marketing related	6
❑ Customer related	6
❑ Artistic related	1
❑ Contract based	4
❑ Technology based	5
Others, please specify:	slots

18. Could you suggest cases where the useful life of goodwill is not known to be indefinite? Example:

- ❑ Goodwill arising on the acquisition of new technology businesses
- ❑ Others, please specify____

19. Is the identification of acquired goodwill problematic in practice?

❑ Yes	3	37.5%
❑ No	5	62.5%

If yes, what are the major problem areas ____________________________________

20. Issues in respect of intangibles are related to
(0 – not an issue, 1 – minor issue, 2 – major issue)

e) identification of intangible assets
0 [4] 1 [2] 2 [2]

f) choosing an appropriate valuation methodology
0 [2] 1 [6] 2 [0]

g) the determination of appropriate assumptions
0 [1] 1 [6] 2 [1]

h) selecting appropriate economic lives for each item or category
0 [1] 1 [4] 2 [3]

21. On average, what proportion of the amount paid on the acquisition of a subsidiary is allocated to goodwill?

❑ <25%	0	0%
❑ >25%<50%	3	37.5%
❑ >50%<75%	3	37.5%
❑ >75%	1	12.5%
❑ Not applicable	1	12.5%

22. In your opinion, impairment tests are:
(0 - not important, 1 – of little importance, 2 – important)

j) Complex

0	0	1	3	2	5

k) Subject to a high degree of subjectivity

0	1	1	2	2	5

l) Costly

0	3	1	4	2	1

m) Irrelevant

0	3	1	3	2	2

n) Time consuming

0	0	1	4	2	4

o) Difficult following the restructuring and combination of existing businesses

0	1	1	2	2	5

p) More transparent

0	2	1	4	2	2

q) Necessary

0	1	1	4	2	3

r) Likely to impact on share prices

0	2	1	4	2	2

23. What criteria are used by your company to determine the cash generating units?

- Management monitoring of the entity's operations
  - ☐ product lines 1
  - ☐ individual locations 4
  - ☐ districts or regional areas 3
- Management's decisions about continuing or disposing of the entity's assets and operations 2

24. Is there ever a change in the cash generating units, which are initially segregated for impairment or other purposes?

☐ Yes	3	37.5%
☐ No	5	62.5%

25. Is it now easier to assess whether or not an acquisition is profitable and adds shareholder value?

❑ Yes	0	0%
❑ No	8	100%

26. If there is any other information that you believe is relevant to my research area, please disclose it here____

Appendix 5

CRH

31 May 2005

RESTATEMENT OF 2004 RESULTS UNDER IFRS

CRH plc, the international building materials group, today announces the impact of the transition to International Financial Reporting Standards (IFRS) on its 2004 results previously prepared in accordance with accounting practice generally accepted in the Republic of Ireland (Irish GAAP). The Group's financial statements for the six months ended 30 June 2005 and for the year ended 31 December 2005 will be prepared under IFRS.

The impact on the audited 2004 key financial data is summarised as follows:

	Irish GAAP	IFRS	% Change	*Comments on principal IFRS changes*
	euro m	euro m		
Turnover	12,820	**12,755**	-1%	*Certain joint ventures reclassified as associates under IFRS - share of sales no longer reported*
Operating profit (EBITA)*	1,247	**1,220**	-2%	*Share of associates' EBITA excluded under IFRS*
Profit before tax	1,017	**1,104**	+9%	*Non-amortisation of goodwill*
Profit after tax	770	**872**	+13%	*Non-amortisation of goodwill*
Total equity	5,300	**4,979**	-6%	*Pension and deferred tax assets and liabilities included under IFRS*
Net debt **	2,441	**2,758**	+13%	*Inclusion of share of joint ventures' net debt*
	euro cent	euro cent		
Earnings per share				
Basic	143.9	**163.6**	+14%	*Non-amortisation of goodwill*
Excluding Irish GAAP goodwill amortisation	163.1	**163.6**	- %	

* *Operating profit (EBITA) excludes goodwill amortisation and profit on sale of fixed assets.*

** *Net debt comprises current and non-current interest-bearing loans and borrowings less cash and cash equivalents and liquid investments.*

This announcement, together with a slide presentation and accompanying audio commentary summarising the impact of the transition to IFRS for CRH, has been filed today on the Group's website at www.crh.com. If you have any questions on this announcement or on the presentation, please contact the following at Dublin 404 1000 (+353 1 404 1000)

Liam O'Mahony	**Chief Executive**
Myles Lee	**Finance Director**
Maeve Carton	**Group Controller**

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Appendix 6

Extract from CRH 2006 Annual Report

Accounting policies and notes regarding goodwill

Business combinations

The purchase method of accounting is employed in accounting for the acquisition of subsidiaries, joint ventures and associates by the Group. The Group elected to avail of the exemption under IFRS 1 *First-time Adoption of International Financial Reporting Standards* whereby business combinations prior to the transition date (1st January 2004) were not restated. IFRS 3 *Business Combinations* was therefore applied with effect from the transition date and goodwill amortization ceased as at that date.
The cost of a business combination is measured as the aggregate of the fair values at the date of exchange of assets given, liabilities incurred or assumed and equity instruments issued in exchange for control together with any directly attributable expenses. To the extent that settlement of all or any part of a business combination is deferred, the fair value of the deferred component is determined through discounting the amounts payable to their present value at the date of exchange. The discount component is unwound as an interest charge in the Group Income Statement over the life of the obligation.
Where a business combination agreement provides for an adjustment to the cost of the combination contingent on future events, the amount of the adjustment is included in the cost at the acquisition date if the adjustment is probable and can be reliably measured. Contingent consideration is included in the acquisition balance sheet on a discounted basis. The assets and liabilities and contingent liabilities of a subsidiary are measured at their fair values at the date of acquisition. In the case of a business combination, which is completed in stages, the fair values of the identifiable assets, liabilities and contingent liabilities are determined at the date of each exchange transaction.
When the initial accounting for a business combination is determined provisionally, any adjustments to the provisional values allocated to the identifiable assets, liabilities and contingent liabilities are made within twelve months of the acquisition date. The interest of minority shareholders is stated at the minority's proportion of the fair values of the assets and liabilities recognised; goodwill is not allocated to the minority interest. Subsequently, any losses applicable to the minority interest in excess of the minority interest are allocated against the interests of the parent.

Goodwill

Goodwill is the excess of the consideration paid over the fair value of the identifiable assets, liabilities and contingent liabilities in a business combination and relates to the future economic benefits arising from assets, which are not capable of being individually, identified and separately recognised.
On transition to IFRS, the deemed cost of goodwill in the Group Balance Sheet at 1st January 2004 equated to the net book value recorded under Irish GAAP. In line with the provisions applicable to a first-time adopter under IFRS 3, goodwill amortisation ceased with effect from the transition date.

The carrying amount of goodwill in respect of associates is included in investments in associates under the equity method in the Group Balance Sheet. Goodwill applicable to jointly controlled entities is accounted for on the basis of proportionate consolidation and is therefore included in the goodwill caption in the Group Balance Sheet, net of any impairments assessed in accordance with the methodology discussed below.

Where a subsidiary is disposed of or terminated through closure, the carrying value of any goodwill, which arose on acquisition of that subsidiary, net of any impairments, is included in the determination of the net profit or loss on disposal/termination.

To the extent that the Group's interest in the net fair value of the identifiable assets, liabilities and contingent liabilities acquired exceeds the cost of a business combination, the identification and measurement of the related assets, liabilities and contingent liabilities are revisited and the cost is reassessed and any remaining balance is recognised immediately in the Group Income Statement.

Goodwill acquired in a business combination is allocated, from the acquisition date, to the cash-generating units that are anticipated to benefit from the combination's synergies. Following initial recognition, goodwill is measured at cost less any accumulated impairment losses. The cash-generating units represent the lowest level within the Group at which goodwill is monitored for internal management purposes and these units are not larger than the primary and secondary reporting segments determined in accordance with IAS 14

Segment Reporting. Goodwill is subject to impairment testing on an annual basis and at any time during the year if an indicator of impairment is considered to exist. In the year in which a business combination is effected, and where some or all of the goodwill allocated to a particular cash-generating unit arose in respect of that combination, the cash-generating unit is tested for impairment prior to the end of the relevant annual period. Impairment is determined by assessing the recoverable amount of the cash-generating unit to which the goodwill relates.

Where the recoverable amount of the cash-generating unit is less than the carrying amount, an impairment loss is recognised. Impairment losses arising in respect of goodwill are not reversed once recognised. When an operation within a cash-generating unit is disposed of, any goodwill associated with that operation is included in the carrying amount of the operation when determining the gain or loss on disposal. Goodwill disposed of in this circumstance is measured on the basis of the relative values of the operation disposed of and the portion of the cash-generating unit retained.

Intangible assets (other than goodwill) arising on business Combinations

An intangible asset, which is an identifiable non-monetary asset without physical substance, is capitalised separately from goodwill as part of a business combination to the extent that it is probable that the expected future economic benefits attributable to the asset will flow to the Group and that its cost can be measured reliably.

The asset is deemed to be identifiable when it is separable (i.e. capable of being divided from the entity and sold, transferred, licensed, rented or exchanged, either individually or together with a related contract, asset or liability) or when it arises from contractual or other legal rights, regardless of whether those rights are transferable or separable from the Group or from other rights and obligations.

Subsequent to initial recognition, intangible assets are carried at cost less any accumulated amortisation and any accumulated impairment losses. The carrying values of definite-lived intangible assets are reviewed for indicators of impairment at each reporting date and are subject to impairment testing when events or changes in circumstances indicate that the carrying values may not be recoverable.

The amortisation of intangible assets is calculated to write-off the book value of definite-lived intangible assets over their useful lives on a straight-line basis on the assumption of zero residual value. In general, definite-lived intangible assets are amortised over periods ranging from one to ten years, depending on the nature of the intangible asset.

14. Intangible Assets

31st December 2006	Goodwill €m	Other intangible assets: Marketing-related €m	Customer-related €m	Contract-based €m	Total €m
At 1st January, net of accumulated amortisation	2,194.6	8.4	45.3	4.2	2,252.5
Translation adjustment	(120.7)	(0.6)	(5.3)	(0.3)	(126.9)
Arising on acquisition (note 33)	817.7	12.3	77.7	8.0	915.7
Impairment loss	(50.0)	-	-	-	(50.0)
Amortisation charge for year (i)	-	(3.6)	(20.5)	(1.2)	(25.3)
At 31st December, net of accumulated amortisation	2,841.6	16.5	97.2	10.7	2,966.0
At 31st December 2006					
Cost		22.6	126.0	13.1	161.7
Accumulated amortisation		(6.1)	(28.8)	(2.4)	(37.3)
Net carrying amount		16.5	97.2	10.7	124.4

The equivalent disclosure for the prior year is as follows:

31st December 2005	Goodwill €m	Marketing-related €m	Customer-related €m	Contract-based €m	Total €m
At 1st January, net of accumulated amortisation	1,756.9	4.7	10.7	1.8	1,774.1
Translation adjustment	110.7	0.6	2.7	0.1	114.1
Arising on acquisition (note 33)	327.9	5.1	38.4	2.9	374.3
Disposals	(0.9)	-	-	-	(0.9)
Amortisation charge for year (i)	-	(2.0)	(6.5)	(0.6)	(9.1)
At 31st December, net of accumulated amortisation	2,194.6	8.4	45.3	4.2	2,252.5
At 31st December 2005					
Cost		11.7	55.0	5.1	71.8
Accumulated amortisation		(3.3)	(9.7)	(0.9)	(13.9)
Net carrying amount		8.4	45.3	4.2	57.9

(i) Goodwill is not subject to amortisation under IFRS. The useful lives of all other intangible assets are finite and range from one to ten years dependent on the nature of the asset.

Due to the asset-intensive nature of operations in the Materials business segment (and the fact that goodwill arising on transactions in this segment is typically fairly small), no significant intangible assets are recognised on business combinations in this segment. Business combinations in the Group's Products and Distribution segments, wherein the majority of goodwill arises, do not exhibit the same level of asset intensity and hence give rise to the recognition of intangible assets.

14. Intangible Assets *continued*

Goodwill

The goodwill balances disclosed above include goodwill arising on the acquisition of joint ventures which are accounted for on the basis of proportionate consolidation. Goodwill arising in respect of investments in associates is included in investments in associates in the Group Balance Sheet (see note 15).

The net book value of goodwill capitalised under previous GAAP (Irish GAAP) as at the transition date to IFRS (1st January 2004) has been treated as deemed cost. Goodwill arising on acquisition since that date is capitalised at cost.

Impairment testing

Goodwill is subject to impairment testing on an annual basis. Testing in 2006 identified an impairment in respect of the Group's share of goodwill in the Cementbouw bv joint venture which was established in 2003 in a leveraged buyout of Cementbouw's materials trading and readymixed concrete operations in the Netherlands, undertaken in conjunction with CRH's 100% purchase of Cementbouw's distribution, concrete and clay products activities. A significant portion of the financing for the joint venture was provided in the form of non-recourse debt. The joint venture has experienced difficult trading in recent years and is currently in discussions with its banking group. An impairment loss of €50.0 million has been recognised in the Group Income Statement, and is reflected in the segment result for Europe Products (note 1).

No impairment losses were recognised by the Group in 2005.

Cash-generating units

Goodwill acquired through business combination activity has been allocated to cash-generating units for the purposes of impairment testing based on the business segment into which the business combination will be assimilated. The cash-generating units represent the lowest level within the Group at which the associated goodwill is monitored for internal management purposes and are not larger than the primary and secondary segments determined in accordance with IAS 14 *Segment Reporting*. A total of 22 cash-generating units has been identified and these are analysed as follows between the six business segment in the Group.

	Cash-generating units
Europe Materials	7
Europe Products	5
Europe Distribution	1
Americas Materials	4
Americas Products	4
Americas Distribution	1
Total cash-generating units	22

Impairment testing methodology and results

The recoverable amount of each of the 22 cash-generating units is determined based on a value-in-use computation. The cash flow forecasts employed for the value-in-use computation are extracted from a five-year strategic plan document formally approved by senior management and the Board of Directors and specifically exclude incremental profits and other cash flows stemming from future acquisition activity. The five-year cash flows obtained from this document are projected forward for an additional five years using the lower of historical compound annual growth and anticipated inflation as the relevant general growth factor. A 20-year annuity-based terminal value is calculated using the average of the last five years' cash flows adjusted to take account of cumulative inflation to year 10 (being the end of the projection period); the terminal value specifically excludes any underlying growth assumption. The recoverable amount stemming from this exercise represents the present value of the future cash flows, including the terminal value, discounted at a before-tax weighted average cost of capital appropriate to the cash-generating unit being assessed for impairment; the before-tax discount rates range from 7.4% to 10.6% (2005 : 7.4% to 10.8%). The average before-tax discount rate represents a premium of circa 0.5 percentage points on the Group's estimated before-tax weighted average cost of capital.

Key assumptions include management's estimates of future profitability, replacement capital expenditure requirements, trade working capital investment needs and tax considerations. The duration of the discounted cash flow model is a significant factor in determining the fair value of the cash-generating units and has been arrived at taking account of the Group's strong financial position, its established history of earnings growth and cash flow generation, its proven ability to pursue and integrate value-enhancing acquisitions and the nature of the building materials industry where product obsolescence risk is very low.

Additional disclosures - significant goodwill amounts

The goodwill allocated to each of the 22 cash-generating units accounts for between 10% and 20% of the total carrying amount of €2,841.6 million (2005 : €2,194.6 million) in one instance and less than 10% of the total carrying amount in all other cases. The additional disclosures required under IAS 36 *Impairment of Assets* in relation to significant goodwill amounts arising in this cash-generating unit (Europe Distribution within the Europe Products & Distribution Division) are as follows:

	Europe Distribution
Carrying amount of goodwill allocated to the cash-generating unit	€334.4m
Carrying amount of indefinite-lived intangible assets allocated to the cash-generating unit	Nil
Basis on which recoverable amount of the cash-generating unit has been assessed	Value-in-use
Discount rate applied to the cash flow projections (real before-tax)	9.4%
Excess of value-in-use over carrying amount	€395.5m

14. Intangible Assets *continued*

The key assumptions used for the value-in-use computation for this cash-generating unit are in line with those addressed above. The values applied to each of the key assumptions are derived from a combination of internal and external factors based on historical experience and take into account the stability of cash flows typically associated with this business.

The cash flows for the cash-generating unit have been projected in line with the methodology disclosed above with the cash flows arising after the five-year period in the strategic plan document being projected forward for an additional five years using inflation as the relevant growth factor.

Given the magnitude of the excess of value-in-use over carrying amount, and the reasonableness of the key assumptions employed, no further disclosures relating to sensitivity of the value-in-use computations are required.