The Value Relevance of goodwill impairments: UK Evidence

Naser M. AbuGhazaleh (Corresponding author)

College of Business Administration,

Gulf University for Science and Technology (GUST)

P.O. Box 7207, Hawally, 32093, Kuwait

Tel: 965-2530-7431   E-mail: AbuGhazaleh.N@gust.edu.kw

Osama M. Al-Hares

College of Business Administration,

Gulf University for Science and Technology (GUST)

P.O. Box 7207, Hawally, 32093, Kuwait

Tel: 965-2530-7408   E-mail: Alhares.O@gust.edu.kw

Ayman E. Haddad

College of Business and Economics

American University of Kuwait (AUK)

P.O Box 3323, Safat 13034, Kuwait

Tel: 965-2224-8399   E-mail: ahaddad@auk.edu.kw

Abstract

Using a sample of 528 firm-year observations, drawn from the top 500 UK listed firms for 2005 and 2006, this study employs a multivariate ordinary least squares regression to assess the value relevance of goodwill impairment losses following the adoption of IFRS No. 3 "*Business Combinations*". Empirical results reveal a significant negative association between reported goodwill impairment losses and market value, suggesting that these impairments are perceived by investors to reliably measure a decline in the value of goodwill and incorporated in their firm valuation assessments. The study provides evidence consistent with IASB's objectives in developing the impairment-only standard and reinforces the argument that, through IFRS 3, managers are more likely to use their accounting discretion to convey privately held information about the underlying performance of the firms.

Keywords: Goodwill accounting, Impairment, International Financial Reporting Standards, Value relevance, EU.

1. Introduction

On 31 March 2004, the International Accounting Standards Board (IASB), seeking international convergence and global harmonisation, followed the US Financial Accounting Standards Board (FASB), and issued IFRS 3, *Business Combinations*, (IASB, 2004a).IFRS 3 eliminates the use of the pooling of interests method and prohibits the amortisation of goodwill. Instead, it requires the testing for impairment to be performed annually or more frequently if events or changes in circumstances indicate that the asset might be impaired. With the transition to international reporting standards, UK firms listed on the main market had to discontinue amortising goodwill and account for it using IFRS 3 since 2005.

Prior studies provide empirical evidence that straight-line amortisation of goodwill over an arbitrary period fails to provide useful information to the users of the financial statements and instead adds noise, making it harder for investors to use the earnings measure to predict future profitability (e.g., Jennings et al., 2001; Moehrle et al., 2001). The impairment approach to goodwill was introduced with the intention of improving the information content of reported acquired goodwill and providing users of the financial statements with value-relevant information that more closely reflects the underlying economic value of goodwill (Note 1). However, this approach has been criticised by

practitioners, academics and dissenting IASB members based on the managerial discretion inherent in the impairment test. The impairment criteria provided by the standard are drafted in such a way that leave significant room for managerial discretion, interpretation, judgement and bias (Massoud and Raiborn, 2003). For example, Watts (2003, p. 217) criticised the impairment approach and argued that "*assessing impairment requires valuation of future cash flows. Because those future cash flows are unlikely to be verifiable and contractible, they, and valuation based on them, are likely to be manipulated*".

Standard setters suggest managers will use the accounting discretion permitted by the impairment approach to provide their private information about future cash flows, resulting in impairments that better reflect the underlying performance of the firm. Alternatively, managers may choose opportunistically to exploit their accounting discretion, resulting in impairments that do not adequately reflect the firm's underlying economics, and hence the purported benefit of the impairment-only approach is merely an illusion shared among standard setters.

Based on the above debate, the primary objective of this study is to examine the value relevance of goodwill impairments reported in the UK context following the adoption of IFRS 3. The hypothesis investigated is that these impairments are more likely to reflect the provision of managers' private information about future cash flows if they are perceived by investors as sufficiently reliable measures of goodwill declination and used by them in their market valuation of the firm values. Alternatively, goodwill impairments may not provide useful information to the market in view of the concerns raised by analysts and investors regarding the standard's implementation.

Using a sample of 528 firm-year observations drawn from the top 500 UK listed firms for financial years 2005 and 2006; this study examines the relationship between equity market value and goodwill impairment losses. Empirical results reveal a significant negative association between reported goodwill impairment losses and market value, suggesting that these impairments are perceived by investors to be value relevant and incorporated in their firm valuation assessments. This perceived reliability and value relevance of goodwill impairment losses may be interpreted as early evidence that managers do in fact choose to exercise their impairment discretion to reliably convey private information on future cash flows. As such, the study further supports IASB's objectives in developing the impairment-only standard and reinforces the argument that, through IFRS 3, managers are more likely to use their accounting discretion granted under this standard to convey privately held information about the underlying performance of the firms, thereby improving the accounting for goodwill practices in particular, and financial reporting among firms in general.

The UK context provides an early yet interesting experimental setting to examine the value relevance of goodwill impairments for the following reasons. Firstly, while most prior studies focused on either the cumulative effect method or the retroactive method used to account for transitional goodwill impairments in USA and Canada respectively, this study provides empirical evidence in relation to goodwill impairments recorded on transition to IFRS 3 in the UK which requires impairments to be recorded in income from continuing operations (Note 2). The absence of special transitional accounting treatments in the UK suggests that goodwill impairments are less likely to be affected by managerial incentives specific to the transition period, and hence increases the generalisability of the results. Secondly, in contrast to the US and Canadian GAAP, whereby a two-steps impairment test on goodwill is to be carried out, goodwill is tested for impairment at a lower level using a one-step test under IFRS 3, thereby providing less room for managers to manipulate the amount of goodwill and resulting in better information provided to investors. Thirdly, this study includes both impairers and non-impairers as its sample for the empirical tests in order to better examine the "net benefits" of the impairment-only approach under IFRS 3. Through such an approach, the limitations in prior studies as identified by Ramanna (2008) can be mitigated. Finally, this study may be one of the first to provide early UK empirical evidence that goodwill impairments reported following the adoption of IFRS 3 are in fact value relevant, in the sense that they are perceived by investors to be reliable measures of the reduction in the value of goodwill and are incorporated into the valuation assessment of the firms.

The remainder of this paper is organised as follows. Section 2 discusses the background. Section 3 presents the main findings of prior research. Section 4 explains the research design employed. Section 5 reviews descriptive statistics and empirical results. Finally, Section 6 concludes.

2. Background

Accounting for goodwill has been a controversial issue in the UK. The first attempt by the UK standard setter, SSAP 22 in 1984 (ASC, 1984), required goodwill to be either written off against reserves (retained earnings) or capitalised and amortised over an "appropriate" period. This attempt received enormous criticisms as it permitted two different accounting treatments that were "conceptually inconsistent" (Hussey and Ong, 2000). The debate in the late 1990s in the UK led to the establishment of FRS 10 *Goodwill and Intangible Assets* (ASB, 1997), whereby goodwill must be capitalised and amortised (with trigger-based impairment tests) under a rebuttable presumption that its useful

economic life does not exceed 20 years from the date of acquisition   instead of the immediate write-off to reserves (Note 3).

With the transition to international reporting standards in the UK in 2005, all firms listed on the main market discontinued amortising goodwill and accounted for it using the guidelines specified by IFRS 3 "*Business Combinations*" and IAS 36 "*Impairment of Assets*" (IASB, 2004b). According to IAS 36, goodwill acquired in a business combination should, from the date of acquisition, be allocated to each of the acquirer's cash-generating-units, or groups of cash-generating-units that are expected to benefit from the synergies of the business combination, irrespective of whether other assets or liabilities of the acquisition are assigned to those units or groups of units. Each unit or groups of units to which goodwill is allocated should represent the lowest level within the entity at which goodwill is monitored for internal management purposes, and not be larger than a segment based on either the entity's primary or secondary reporting format, according to IAS 14 "*Segment Reporting*" (Note 4) (superseded by IFRS 8 "*Operating Segments*" effective for annual periods beginning 1 January 2009). A cash-generating-unit to which goodwill has been allocated shall be tested for impairment both annually and whenever there is an indication that the unit may be impaired. If the recoverable amount of the unit exceeds the carrying amount of the unit, the unit and the goodwill allocated to that unit is not impaired. If instead the carrying amount of the unit exceeds its recoverable amount, the entity must recognise an impairment loss (Note 5). The recoverable amount of an asset or a cash-generating-unit is whichever is the higher of its fair value less costs to sell and its value in use.

The impairment loss is first allocated to the goodwill of the cash-generating-unit (groups of units) before it is allocated to other assets within the unit (groups of units) on a pro-rata basis, as long as it does not reduce any asset below the highest of its fair value less costs to sell, its value in use, and zero. The impairment loss is recognized immediately above the line in the section of income from continuing operations (Note 6). Once recognised, IAS 36 prohibits the recognition of reversals of impairment losses for goodwill in subsequent periods.

While IFRS 3 forces managers to perform annual goodwill impairment tests and, at a lower level, using a one-step test of impairment, it also provides the opportunity for accounting discretion by requiring managers to make a number of accounting choices. The most important of these are the determination of the cash-generating units, the subsequent allocation of goodwill to these units, and the recoverable amount estimates of the units. According to standard setters, such accounting treatment is expected to improve the representational faithfulness of the goodwill figures rather than that reported via straight-line amortisation over an arbitrary period. They further argue that, through the impairment-only approach, more useful information can be provided to users of an entity's financial statements (IASB, 2004a, BC140, p.142). However, practitioners and financial report users remain sceptical over the motivations for managers' reporting choices. By exercising discretion inherent in IFRS 3, managers may, depending on their reporting incentives, overstate, understate, or simply not recognise an existing economic impairment loss by being selective with respect to the underlying choices they make when testing goodwill for impairment. This discretion may be used to convey managers' private information about future cash flows. Alternatively, it may be used opportunistically to extract rents from other contracting parties resulting in impairments that are less reflective of the firm's underlying economics.

3. Related Research

The majority of prior empirical studies examining the impact of the amortisation expense on share prices provide little evidence that it is of significant value to users. For example, Jennings et al. (2001) examine whether total earnings with goodwill amortisation is more informative than total earnings before amortisation. They find that earnings before goodwill amortisation explain significantly more of the observed distribution of share prices than earnings after goodwill amortisation, and that goodwill amortisation adds "noise", making it harder for investors to use the earnings measure to predict future profitability. Similarly, Moehrle et al. (2001) find little evidence that goodwill amortisation contains value-relevant information, and suggest that the amortisation disclosures were not decision-useful, thereby supporting the FASB's choice of impairment tests for goodwill instead of amortisation (Note 7). In contrast, Ojala (2007) finds that the goodwill amortisation practice does provide relevant information for investors, provided that amortisation periods are sufficiently short in order to better reflect the economic life of the underlying asset.

Studies that examine the market effects of write-offs can be divided into two primary strands. The first strand uses the information content approach to examine the relation between the announcement of a write-off and equity market reactions measured over a relatively short period surrounding the announcement date (Alciatore et al., 1998). The second strand is the association studies which examine the association between the write-off amount and returns calculated over a longer interval, such as a financial year (Alciatore et al., 1998). The majority of prior studies use

the information content approach, and examine the market reactions at the time of the announcement of the write-off. The assumption underlying these studies is that if share prices change around the time of write-off announcements, then these write-offs are value-relevant and useful for investment decision making (Note 8).

Strong and Meyer (1987), Elliot and Shaw (1998), Francis et al., (1996), and Bartov et al., (1998), are prior studies that, using the information content approach, report negative stock market reactions at the announcement of asset write-offs. Among the studies that focus specifically on goodwill write-offs, Hirschey and Richardson (2003) find that the stock market reaction to 80 goodwill write-offs reported prior to the adoption of SFAS 142 is negative and material. Bens and Heltzer (2004) examine the information content of goodwill write-offs recorded before, during, and after the adoption of SFAS 142, and report a significant negative stock market reaction to the announcements of goodwill write-offs before and after the adoption of SFAS 142. However, they also conclude that the market reaction to goodwill impairments recorded in the transition period is significantly less negative than the reaction to impairments recorded in later periods, clearly suggesting that the market believes managers have acted strategically in the transition year by writing off goodwill that was not yet impaired in order to take advantage of the one-time below-the-line treatment, and to present a more conservative balance sheet. Li et al., (2011) and Zang (2008) are two more recent empirical studies on the information content of transitional goodwill impairments following the adoption of SFAS 142. Using a sample of US firms, these two studies are able to conclude that negative abnormal returns are reported following the announcement of goodwill write-offs. Furthermore, they find that financial analysts revise their short-term and long-term earnings forecasts downwards following the announcements of goodwill impairment losses.

Using the association approach, Chen et al. (2008) examine the value relevance of goodwill impairments reported during and subsequent to the first year of SFAS 142 adoption. They find that both the adoption and first year impairments provided new information to the market. They therefore conclude that SFAS 142 is "net beneficial", consistent with the objectives laid out by FASB when developing the standard. With a sample of Canadian firms, Lapointe-Antunes et al. (2009) examine the value relevance and timeliness of transitional SFAS 142 goodwill impairments recorded by these firms and find a negative relationship between reported impairment losses and share price. They then interpret their results as evidence that fair value measurements can be relevant, even when the financial statement elements are inherently bound to measurement error and subject to significant managerial discretion.

Studies from both strands produced evidence to suggest that goodwill write-offs convey economically meaningful information to the investors about the firm's future profitability. One important implication to be drawn from these studies is that the impairment-only approach has improved the quality of reported information on goodwill (as predicted by the standard setters) by providing managers with a framework to convey their private future-cash-flow information to markets (Note 9) (Note 10)

However, it has to be noted that results of studies using US and Canadian data from the transition period have to be interpreted with caution and may lack generalisability since managers, in recording transitional write-offs, may have had incentives to act strategically by increasing the amount of write-offs that are treated as merely an accounting change or charged to retained earnings, thereby decreasing the probability and amount of future impairments that would be, if recorded, included in income from continuing operations (Beatty and Weber, 2006). For example, Bens and Heltzer (2004) report that the market's reaction to transitional SFAS 142 goodwill impairments is significantly less negative than its reaction to impairments recorded in later periods, suggesting that US managers acted strategically in the adoption year by writing off goodwill that was not yet impaired in order to take advantage of the one-time below-the-line treatment and present a more conservative balance sheet. Similarly, Jordan et al. (2007) find that U.S managers have "cherry picked" the adoption year to aggressively recognise goodwill impairment losses so that operating income in future years would not be burdened with these charges.

Furthermore, Ramanna (2008) argues that these studies focus primarily on explaining *recorded* impairments but have not considered firms that have *avoided* impairments (p.255). Using a sample that includes both impairers and non-impairers may therefore be a much better approach to arrive at conclusions on the "net benefits" of the impairment-only standards.

This study relates to prior literature in strand two, which adopts the association approach when examining the value relevance of goodwill impairment losses. However, having been made aware of the limitations of past research, this study differs from prior studies in two key aspects. Firstly, unlike previous research, this study focuses on IFRS 3 goodwill impairment losses reported in the UK context which requires impairments to be recorded in the section of income from continuing operations, and hence are less susceptible to managerial incentives specific to the transition period. Secondly, this study includes both impairers and non-impairers as its sample for the empirical tests in order

to better examine the "net benefits" of the impairment-only approach under IFRS 3. Through such an approach, the limitations in prior studies as identified by Ramanna (2008) can be mitigated. These two key differences clearly demonstrate the further need and advantage for carrying out this study examining the value relevance of goodwill impairments in the UK context, which, according to the authors' best knowledge, has not been examined before.

3. Methodology

3.1 Sample Firms

Table 1 presents the sample construction process. The top 500 UK listed firms by total market capitalization as listed by the *Financial Times* at 30 March 2007 are selected for the 2005 and 2006 financial years. This results in 1000 firm-year observations. 254 observations belonging to the *Financials* industry are then excluded, since their financial reporting processes as regulated industries tend not to match with other industries. The distinction between financials and non-financials is based on the *Industry Classification Benchmark* system as given by the *London Stock Exchange* (LSE). The exclusion of the financial institutions results in 746 firm-year observations. 80 observations listed on the LSE's *Alternative Investment Market* (AIM) are further excluded, since they are required to adopt IFRS-based reporting for the first time after the 1st of January 2007 and were still amortising goodwill according to the provisions of the previous UK GAAP, FRS 10. This process results in 666 firm-year observations. Finally 87 observations with no positive goodwill balances and 51 observations that do not have the necessary data to run the tests are excluded. These procedures result in a final sample that consists of 528 firm-year observations, comprised of 109 write-off (20.6% of sample) and 419 non-write-off observations (79.4% of sample). Financial data for sample firms is obtained from the Hemscott Premium Database, supplemented by the firms' annual reports when necessary. Finally, financial statements prepared in a currency different from pounds sterling are translated into pounds using the exchange rate at the balance sheet date.

Insert Table 1 Here

3.2 Model and Variables

To evaluate the value relevance of goodwill impairment losses, this study adopts the model applied by Lapointe-Antunes et al. (2009), known as an accounting-based valuation model that is originally proposed by Ohlson (1995). This model views the firm's market value as a function of the book value of its equity and its earnings. The valuation model is then altered to separate goodwill and goodwill impairment losses from book value of equity and earnings. The following ordinary least squares regression model is used to assess the value relevance of goodwill impairment losses:

$$MVAL_i = \alpha + \beta_1 BVAL_i + \beta_2 PTP_i + \beta_3 ECVGW_i + \beta_4 GILA_i + e_i$$

Where:

MVAL	Firm *i*'s market value of equity at the end of the year in which the goodwill impairment test is performed.
BVAL	Firm *i*'s book value of equity at the end of the year in which the goodwill impairment test is performed minus the carrying value of goodwill at the end of that same period.
PTP	Firm *i*'s pre-tax profit at the end of the year in which the goodwill impairment loss is recognized plus the reported goodwill impairment loss.
ECVGW	Firm *i*'s carrying value of goodwill at the end of the year in which the goodwill impairment test is performed plus the reported goodwill impairment loss.
GILA	Firm *i*'s reported goodwill impairment loss reflected as a positive number. *GILA* is 0 for firms the do not report goodwill impairments.

Following Lapointe-Antunes et al. (2009), all variables included in this study are deflated by year-end total ordinary shares outstanding. Furthermore, the model above is corrected for heteroscedasticity using White's heteroscedasticity-corrected variances and standard errors.

Prior value relevance research suggests that the book of value of equity is a value-relevant factor that proxies for expected future normal earnings (Ohlson, 1995). Similarly, it has been argued that earnings reflect information about expected future cash flows (Note 11) (Kothari and Zimmerman, 1995; Ohlson, 1995). Consequently, the study expects the book value of equity (*BVAL*) and earnings (*PTP*) to be positively related to price. Prior research on the value relevance of firms' reported goodwill in USA and Australia provides evidence of a positive association

between firm value and goodwill (e.g., Jennings et al., 1996; Godfrey and Koh, 2001; Henning et al., 2000; Dahmash et al., 2009), suggesting that investors perceive that goodwill reflects an underpinning economic value which generates future economic benefits to the firm (Note 12). Consequently, the study expects a positive association between the carrying value of goodwill (*ECVGW*) and price. Finally, prior research reports negative correlations between SFAS 142 write-offs and share prices (e.g., Chen et al., 2008; Lapointe-Antunes et al., 2009). To the extent that investors perceive IFRS 3 goodwill impairments to be reliable estimates of a reduction in the value of goodwill and to incorporate these estimates in their valuation of firm values, the current study expects a negative association between goodwill impairments (*GILA*) and price.

4. Empirical Results

4.1 Descriptive Statistics

Table 2 provides descriptive statistics for the variables used in the multivariate OLS regression examining the value relevance of goodwill impairment losses. The table shows an average share price of £5.21 and an average book value per share before goodwill of £0.79. Sample firms have average earnings per share before goodwill impairment of £0.46. The average goodwill per share before goodwill impairment and the average goodwill impairment per share are £0.82 and £0.01, respectively. The book value per share exceeds the market value for only 11 observations. Out of these firms, 6 report goodwill impairment losses.

Insert Table 2 Here

Table 3 provides Pearson correlations for the variables used in the multivariate OLS regression examining the value relevance of goodwill impairments. As predicted, *BVAL*, *PTP* and *ECVGW* have significant positive correlations with *MVAL*. *GILA* has a negative and insignificant correlation with *MVAL*. While bivariate correlations exist, the multivariate analysis offers advantages over bivariate correlations on the grounds of its ability to control for the effects and interrelationships between other independent variables. Finally, Table 3 reveals that the independent variables are not highly correlated with one another. The highest pair-wise correlation coefficient is 0.5398, suggesting that multicolinearity does not appear to be a problem in this study.

Insert Table 3 Here

4.2 Multivariate Results

Table 4 reports the results of the OLS regression examining the value relevance of goodwill impairment losses. The model is significant (P-value < 0.001) with an adjusted R^2 of 76.57%. The Durbin-Watson *d* statistic is not less than 1, indicating that autocorrelation is not a serious problem (Note 13).

Consistent with the predictions of the study, the book value per share (*BVAL*), and earnings per share (*PTP*) are positively associated with share price and the association is significant ($p=0.0452$ and $p<0.001$)**.** In addition, goodwill per share (*ECVGW*) is positive and significant ($p<0.001$), providing evidence consistent with prior research (e.g., Jennings et al., 1996; Henning et al., 2000; Godfrey and Koh, 2001; Dahmash et al., 2009) and suggesting that goodwill reported by UK firms is value-relevant and perceived by investors to provide firms with future economic benefits. Finally, Table 4 reveals that the goodwill impairment loss per share (*GILA*) is negative and significant ($p<0.001$), suggesting that the information relating to these impairments is integrated by investors in their valuation assessments of the firm. This result may be interpreted as evidence that IFRS 3 has improved the quality of reported information on goodwill by allowing managers to reliably convey their privately-held future-cash-flow information to markets, consistent with the IASB's objectives in developing the impairment standard. Thus, the study provides evidence consistent with prior US and Canadian value relevance studies (e.g., Chen et al., 2008; Lapointe-Antunes et al., 2009) but in a different experimental setting.

Insert Table 4 Here

5. Conclusion

Using a sample of 528 firm-year observations, drawn from the top 500 UK listed firms for 2005 and 2006, this study employs a multivariate ordinary least squares regression to assess the value relevance of goodwill impairment losses reported by UK firms following the adoption of IFRS 3 "*Business Combinations*". While IFRS 3 was issued to improve the accounting treatment for goodwill and provide users with more useful and value-relevant information regarding the underlying economic value of goodwill, practitioners and financial report users remain sceptical over the motivations for managers' reporting choices. The hypothesis investigated is that these impairments are more likely to reflect the provision of managers' private information about future cash flows if they are perceived by investors as sufficiently reliable measures of goodwill declination and used by them in their market valuation of the

firm values. Alternatively, goodwill impairments may not provide useful information to the market in view of the concerns raised by analysts and investors regarding the standard's implementation.

Empirical results reveal a significant negative association between reported goodwill impairment losses and market value, suggesting that these impairments are perceived by investors to reliably measure a decline in the value of goodwill and are incorporated in their firm valuation assessments. Contrary to criticisms that surrounded the application of the impairment-only approach, which centred on whether the managerial discretion afforded by such standards may be used by managers opportunistically to distort the underlying economics of the firm, the perceived reliability and value relevance of goodwill impairment losses documented in this study may be interpreted as early evidence that managers do in fact choose to exercise their impairment discretion to reliably convey their private information on future cash flows. As such, the results should be of interest to standard setters and academics, as they provide further support to IASB's objectives in developing the impairment standard and reinforce the argument that, through principles-based standards (e.g., IFRS 3), managers are more likely to use their accounting discretion to convey privately-held information about the underlying performance of the firms. Finally, the empirical findings of this study provide greater confidence to the findings of prior accounting research (e.g. Jennings et al., 1996; Henning et al., 2000; Godfrey and Koh, 2001; Dahmash et al., 2009) that the information content of reported goodwill figures is value relevant. This study is subject to the standard econometric problems faced by most positivistic accounting researchers (e.g., errors in variables, omitted variables, sample selection bias). The limited number of years studied is also another limitation of the current research. Given more years of financial statement data, it may be possible to examine the long-term effects of IFRS 3 on goodwill accounting and determine whether the conclusions of this study hold over time.

References

AbuGhazaleh, N., Al-Hares, O., & Roberts, C. (2011). Accounting Discretion in Goodwill Impairments: UK Evidence. *Journal of International Financial Management and Accounting*, 22 (3). 165-204. http://dx.doi.org/10.1111/j.1467-646X.2011.01049.x

Accounting Standards Board. (1997). Financial Reporting Standard 10, *Goodwill and Intangible Assets*.

Accounting Standards Board. (1998). *Financial Reporting Standard 11*, Impairment of Fixed Assets and Goodwill.

Accounting Standards Committee. (1984, 1989), Statement of Standard Accounting Practice 22, *Accounting for Goodwill.*

Alciatore, M., Dee, C.C., Easton, P., & Spear, N. (1998). Asset Write-Downs: A Decade of Research. *Journal of Accounting Literature*. 17. 1-39.

Andrews, R. (2006). Impairment of Assets: Measurement Without Disclosure. *The Chartered Association of Certified Accountants Research Report 92*.

Bartov, E., Lindahl, F. W., & Ricks, W. E. (1998). Stock Price Behaviour Around Announcements of Write-Offs. *Review of Accounting Studies*.3 (4).327-346. http://dx.doi.org/10.1023/A:1009644800963

Beatty, A., & Weber, J. (2006). Accounting Discretion in Fair Value Estimates: An Examination of SFAS 142 Goodwill Impairments. *Journal of Accounting Research*. 44 (2). 257-288. http://dx.doi.org/10.1111/j.1475-679X.2006.00200.x

Bens, D. A., & Heltzer, W. (2004). The Information Content and Timeliness of Fair Value Accounting: An Examination of Goodwill Write-offs Before, During and After Implementation of SFAS 142. *Working paper*.University of Chicago.

Chen, C., Kohlbeck, M., & Warfield, T. (2008). Timeliness of impairment recognition: Evidence from the initial adoption of SFAS 142. *Advances in Accounting*. 24 (1). 72-81. http://dx.doi.org/10.1016/j.adiac.2008.05.015

Godfrey, J. M., & Koh, P. (2009). Goodwill Impairment as a Reflection of Investment Opportunities. *Accounting and Finance,* 49 (1). 117-140. http://dx.doi.org/10.1111/j.1467-629X.2008.00272.x

Dahmash, F. N., Durand, R. B., & Watson, J. (2009). The Value Relevance and Reliability of Reported Goodwill and Identifiable intangible Assets. *The British Accounting Review*, 41 (20).120-137. http://dx.doi.org/10.1016/j.bar.2009.03.002

Deegan, C. , & Unerman, J. (2006). *Financial Accounting Theory.* European Edition, McGraw-Hill, London, UK

Elliott, J. A., & Shaw, W. H. (1998).Write-Offs as Accounting Procedures to Manage Perceptions. *Journal of Accounting Research*. 26 (Supplement 1998). 91-119.http://dx.doi.org/10.2307/2491182

Francis, J., Hanna, J., & Vincent, L. (1996).Causes and Effects of Discretionary Asset Write-offs. *Journal of Accounting Research*. 34 (Supplement 1996). 117-134.http://dx.doi.org/10.2307/2491429

Godfrey, J., & Koh, P. (2001).The Relevance to Firm Valuation of Capitalized Intangible Assets in Total and by Category.*Australian Accounting Review*.July.39-48.

Henning, S. L., Lewis, B. L., & Shaw, W. H. (2000). Valuation of the Components of Purchased Goodwill. *Journal of Accounting Research*.38 (2).375-386.http://dx.doi.org/10.2307/2672938

Hirschey, M., & Richardson, V. J. (2003).Investor Underreaction to Goodwill Write-Offs. *Financial Analysts Journal*.59 (6).75-84.http://dx.doi.org/10.2469/faj.v59.n6.2577

Hussey, R., & Ong, A. (2000).Can We Put a Value on a Name: The Problem of Accounting for Goodwill and Brands.*Credit Control*. 21 (1/2). 32-38.

International Accounting Standards Board. (2004a). *International Financial Reporting Standard 3*, Business Combinations.

International Accounting Standards Board. (2004b). *International Accounting Standard 36* (revised), Impairment of Assets.

Jarva, H. (2009). Do Firms Manage Fair Value Estimates? An Examination of SFAS 142 Goodwill Impairments. *Journal of Business Finance and Accounting*, 36 (9-10). 1059-1086. http://dx.doi.org/10.1111/j.1468-5957.2009.02169.x

Jennings, R., LeClere, M., & Thompson, R. (2001). Goodwill Amortisationand the Usefulness of Earnings.*Financial Analysts Journal*.57 (5).20-28.http://dx.doi.org/10.2469/faj.v57.n5.2478

Jennings, R., Robinson, J., Thompson, R. B., & Duvall, L. (1996). The Relation between Accounting Goodwill Numbers and Equity Values.*Journal of Business Finance and Accounting*.23 (4).513-533.http://dx.doi.org/10.1111/j.1468-5957.1996.tb01024.x

Jordan, C. E., Clark, S. J., & Vann, C. E. (2007). Using Goodwill Impairment to Effect Earnings Management during SFAS No. 142's Year Of Adoption And Later. *Journal of Business and Economic Research*.5 (1).23-30.

Kothari, S. P., & Zimmerman, J. (1995). Price and Return Models. *Journal of Accounting and Economics*.20 (2).155-192.http://dx.doi.org/10.1016/0165-4101(95)00399-4

Lapointe-Antunes., P., Cormier, D., & Magnan, M. (2008). Equity Recognition of Mandatory Accounting Changes: The Case of Transitional Goodwill Impairment Losses. *Canadian Journal of Administrative Sciences*, 25 (1). 37-54. http://dx.doi.org/10.1002/cjas.41

Lapointe-Antunes., P., Cormier, D, & Magnan, M. (2009). Value Relevance and Timeliness of Transitional Goodwill-Impairment Losses: Evidence from Canada. *International Journal of Accounting*.44 (1).56-78. http://dx.doi.org/10.1016/j.intacc.2008.12.006

Li, Z., Shroff, P. K., Venkataraman, R., & Zhang, I. (2011). Causes and Consequences of Goodwill Impairment Losses. *Review of Accounting Studies*. 16 (4). 745-778. http://dx.doi.org/10.1007%2Fs11142-011-9167-2

Massoud, M. F., & Raiborn, C. A. (2003). Accounting for Goodwill: Are we better Off ?.*Review of Business*.24 (2).26- 32.

Moehrle, S. R., Reynolds-Moehrle, J. A., & Wallace, J. S. (2001). How Informative are Earnings Numbers that Exclude goodwill Amortisation?.*Accounting Horizons*. 5 (3).243-255.http://dx.doi.org/10.2308/acch.2001.15.3.243

Ohlson, J. (1995). Earnings, Book Values and Dividends in Equity Valuations.*Contemporary Accounting Research*.11 (2).661-687.http://dx.doi.org/10.1111/j.1911-3846.1995.tb00461.x

Ojala, H. (2007). The Value Relevance of Accounting Goodwill-Does the Abandonment of Systematic Amortisation Make A Sense to Investors?'.*Finnish Journal of Business Economics*. 1/2007. 9 – 34.

Paterson, R. (2002). Straining Goodwill. *Accountancy*.London, 129 (1306).101-103.

Ramanna, K. (2008). The Implications of Unverifiable Fair-Value Accounting: Evidence from the Political Economy of Goodwill Accounting. *Journal of Accounting and Economics*. 45 (2-3). 253-281.http://dx.doi.org/10.1016/j.jacceco.2007.11.006

Strong, J. S., & Meyer, J. R. (1987).Asset Writedowns: Managerial Incentives and Security Returns. *The Journal of Finance*.42 (3).643-661.http://dx.doi.org/10.2307/2328376

Watts, R. L. (2003).Conservatism in Accounting. Part 1: Explanations and Implications. *Accounting Horizons*.17 (3).207-221.http://dx.doi.org/10.2308/acch.2003.17.3.207

Zang, Y. (2008). Discretionary Behaviour with Respect to the Adoption of SFAS No. 142 and the Behaviour of Security Prices.*Review of Accounting and Finance*.7 (1). 38-68.http://dx.doi.org/10.1108/14757700810853842

Notes

Note 1. In explaining how IFRS 3 improves financial reporting, the IASB (2004a, BC 140, 142) argues that "straight-line amortisation of goodwill over an arbitrary period fails to provide useful information. The Board noted that both anecdotal and research evidence supports this view…The Board reaffirmed the view it reached in developing ED 3 that if a rigorous and operational impairment test could be devised, more useful information would be provided to users of an entity's financial statements under an approach in which goodwill is not amortised, but tested for impairment annually or more frequently if events or changes in circumstances indicate that the goodwill might be impaired".

Note 2. The US SFAS 142 gave firms a reporting benefit by allowing them to report transitional goodwill impairments below-the-line as the effects of changes in accounting principles, while the Canadian GAAP (Section 3062) allowed firms to use the retroactive method and charge transitional goodwill impairments to opening retained earnings rather than net income

Note 3. FRS 10 allowed goodwill to have a useful economic life of greater than 20 years, or even an indefinite one, but only when it is expected to be capable of continued measurement. Where goodwill is regarded as having an indefinite useful economic life, it should not be amortised. If goodwill is not amortised, or if it is amortised over a period of more than 20 years, then an impairment review must be performed each year to ensure that the carrying value of the goodwill does not exceed its recoverable amount in accordance with FRS 11 *Impairment of Fixed Assets and Goodwill* (ASB, 1998). However, the way that UK firms applied the requirements of FRS 10 and FRS 11 was regarded as "slightly surprising, given their long-standing hostility to amortizing goodwill: most of them chose the amortisation route in order to avoid the complexities of the full-blown impairment testing regime" (Paterson, 2002, p 102). Andrews (2006) also reports that the majority of large UK firms in the 2004 financial year have selected 20 years as the finite useful economic life for goodwill and have amortised the asset over its finite life.

Note 4. In deciding not to converge with SFAS 142 on the level of the goodwill impairment test, the Board noted that several North American round-table participants expressed a high level of dissatisfaction at being prevented by SFAS 142 from recognising goodwill impairments that they knew existed at levels lower than reporting units (as defined by SFAS 142), but which disappeared once the lower level units were aggregated with other units containing sufficient cushions to offset the impairment loss (IASB, 2004b, BC 149).

Note 5. In developing IAS 36, the Board considered converging fully with SFAS 142. However, the Board was concerned that the two-step approach required by SFAS 142 would not provide better information than an approach under which goodwill is tested for impairment at a lower level using a one-step test (thereby removing many of the cushions protecting the goodwill from impairment) and concluded that the complexity and costs of applying a two-step approach would outweigh any benefits of that approach. For example, if the carrying amount of a cash-generating unit that contains goodwill exceeds its fair value, firms are required to report an impairment loss under IAS 36. However, under SFAS 142, US firms that fail the first step can still avoid recording an impairment loss if the implied fair value of goodwill exceeds its carrying value.

Note 6. In developing IAS 36, the Board considered whether IAS 36 should include a transitional goodwill impairment test similar to that included in SFAS 142. The Board argued that the only possible situation in which a transitional impairment test might give rise to the recognition of an impairment loss would be when goodwill being amortised over a period not exceeding 20 years was impaired in the absence of any indicator of impairment that would require an impairment test. Given the rare circumstances in which this issue would arise, the Board concluded that the benefit of applying a transitional goodwill impairment test would be outweighed by the added costs of the test, and decided that the revised version of IAS 36 should not require a transitional goodwill impairment test (IASB, 2004b, BC 220-222).

Note 7. Moehrle et al. (2001) find that accounting earnings with or without amortisation are equally informative and provide similar value relevance when related to market returns.

Note 8. Capital market research in accounting assumes that equity markets are semi-strong form efficient, in which all publicly available information, including that available in firms' financial statements and other financial disclosures, is rapidly and fully reflected into share prices as it is released (Deegan and Unerman, 2006).

Note 9. Ramanna (2008, p. 255) casts doubts on the "net benefit" conclusions of these studies and provides alternative explanations for the perceived negative stock market reaction. Impairments are either utilised as a "big bath" strategy, or by management's incompetence to avoid losses despite SFAS 142's discretion potential.   In both cases, the impairments are providing new information to markets, but not because the impairment approach has provided a framework for managers to reliably report their private information.

Note 10. Another stream of literature examines managers' use of discretion in determining goodwill impairment losses following the mandatory adoption of the impairment-only approach in USA, Canada and the UK (Lapointe-Antunes et al., 2008; Godfrey and Koh, 2009; Jarva, 2009; AbuGhazaleh et al., 2011). These studies fail to find evidence that managers are opportunistically using their accounting discretion to distort the underlying economics of the firms and conclude that the introduction of the impairment approach has enabled managers to convey their private information about future cash flows consistent with the standard setters' objectives in developing the impairment standards. These studies provide further support to the hypothesis investigated in this study.

Note 11. Since the market's expectation of future cash flows are unobservable, empirical specifications of the price-earnings relation often use current earnings as a proxy for the market's expectation (Kothari and Zimmerman, 1995, p. 156).

Note 12. However, Henning et al. (2000) decompose goodwill into going concern, synergy, and residual components (overpayments). The residual component is measured as the difference between reported goodwill and the going concern and synergy components. Regressing the market value of equity on the three components reveals that the residual component is negatively related to market value, suggesting that the market treats overpayments as an expense at the time of the acquisition.

Note 13. Correcting the results for first order autocorrelation improves the Durbin-Watson d statistic and does not change the inferences on any of the variables (untabulated).

Table 1. Sample Construction*

Firm- Year Observations	
Top 500 UK listed firms by market capitalization (as listed by the *Financial Times* at 30 March 2007) for the 2005 and 2006 financial years.	1000
(-) observations related to the *Financials* industry	(254)
(-) observations listed on the *Alternative Investment Market*	(80)
(-) observations with no positive goodwill balances	(87)
(-) observations with insufficient/ missing data	(51)
Final Sample	**528**
Goodwill impairers	109 (20.6 %)
Non goodwill impairers	419 (79.4 %)

*This table presents the construction process for the final sample used to examine the value relevance of goodwill impairments.

Table 2. Descriptive statistics *

Variable **	N	Mean	Median	Minimum	Maximum
MVAL	528	5.2093	3.8265	0.1550	44.3713
BVAL	528	0.7896	0.3869	-4.2519	8.9349
PTP	528	0.4558	0.2693	-0.5693	5.4491
ECVGW	528	0.8162	0.4134	0.0004	10.5041
GILA	528	0.0105	0.0000	0.0000	0.7460

*This table provides descriptive statistics for the variables used in the multivariate OLS regression examining the value relevance of goodwill impairments.

**Variable definitions (all variables are deflated by year-end total ordinary shares outstanding)

   MVAL   The marketvalue of equity at the endof the year in which the goodwill impairment test is performed.

   BVAL   The book value of equity at the end of the year in which the goodwill impairment test is performed minus the carrying value of goodwill at the end of that same period.

PTP	The pre-tax profit at the end of the year in which the goodwill impairment loss is recognized plus the reported goodwill impairment loss.
ECVGW	The carrying value of goodwill at the end of the year in which the goodwill impairment test is performed plus the reported goodwill impairment loss.
GILA	The reported goodwill impairment loss reflected as a positive number. *GILA* is 0 for firms the do not report goodwill impairments.

Table 3. Pearson correlations*

Variable**	MVAL	BVAL	PTP	ECVGW	GILA
MVAL	1.0000				
BVAL	0.4494 P< 0.001	1.0000			
PTP	0.8636 P< 0.001	0.5398 P< 0.001	1.0000		
ECVGW	0.3149 P< 0.001	-0.2345 P< 0.001	0.2052 P< 0.001	1.0000	
GILA	-0.0194 P=0.1207	0.1309 P=0.003	0.0832 P=0.056	0.1989 P< 0.001	1.0000

*This table provides Pearson correlations for the variables used in the multivariate OLS regression examining the value relevance of goodwill impairments.

** The variable definitions are reported in Table 2.

Table 4. Value relevance of goodwill impairment losses*

Variable**	Prediction	Coefficient	T-Statistic	P-Value***
Intercept	?	1.5818	9.549	**< 0.001**
BVAL	+	0.2259	2.893	**0.0452**
PTP	+	6.1722	9.713	**< 0.001**
ECVGW	+	0.8592	5.097	**< 0.001**
GILA	-	-6.2557	-12.187	**< 0.001**
Adjusted R²	76.57%			
Model F Test	431.70 P-Value < 0.001			
Durbin-Watson statistic	1.3525			

*This table presents the results of the OLS regressions examining the value relevance of goodwill impairment losses. The above results are corrected for heteroscedasticity using White's heteroscedasticity-corrected variances and standard errors provided by LIMDEP. The model uses a sample of 528 firm-year observations over the period 2005-2006 (109 write-off observations and 419 non-write-off observations). The parameter estimates are based on the following model: $MVAL_i = \alpha + \beta_1 BVAL_i + \beta_2 PTP_i + \beta_3 ECVGW_i + \beta_4 GILA_i + e_i$

** The variable definitions are reported in Table 2

***One-tailed.