Schmalenbach Business Review ◆ Vol. 57 ◆ July 2005 ◆ pp. 276 – 297

**Wolfgang Schultze***

# The Information Content of Goodwill-Impairments under FAS 142: Implications for External Analysis and Internal Control

**Abstract**

With its standards FAS 141 and 142 the Financial Accounting Standard Board has revolutionized the accounting for business combinations. One of the major changes is the abolishment of goodwill-amortization, which has been replaced by an annual impairment test at the level of a reporting unit. Among other things, this new regulation is intended to improve the information content of goodwill accounting. This paper investigates into the information content of such an impairment from the perspective of external or internal financial analysis. I examine how impairment losses resulting from FAS 142 should be interpreted and treated in the internal and external performance analysis. My analysis shows that an impairment can be due to several reasons, not just to a deteriorating economic performance. In particular, the way the impairment test is conducted according to FAS 142 may even lead to a discrimination of economically viable investment projects.

JEL-Classification: G14, M41.

Keywords: Financial Statement Analysis; Goodwill; Impairment; Internal Control; Performance Measurement.

## 1 Introduction

In 2001, the Financial Accounting Standards Board (FASB) released the standards FAS 141 and 142 on Business Combinations. The main novelties were the abolishment of the pooling-of-interest-method, the definition and recognition of intangible assets, and the treatment of goodwill. All goodwill acquired in business combinations is no longer amortized, but must be tested annually for impairment at the level of a reporting unit (so-called "impairment-only approach"). The FASB put into place a two-step impairment test to identify and measure possible impairment losses, which are shown on the income statement as a separate line item before the subtotal "income from continuing operations" (FAS 142.43).

In 2004, the International Accounting Standards Board (IASB) followed suit by releasing IFRS 3 "Business Combinations" and revising IAS 36 "Impairment of Assets" as well as IAS 38 "Intangible Assets", adopting the impairment-only

* Dr. Wolfgang Schultze, Universität Augsburg, Lehrstuhl für Wirtschaftsprüfung und Controlling, Prof. Dr. Dres. h.c. A. G. Coenenberg, Universitätsstr. 16, 86135 Augsburg, E-mail: Wolfgang.Schultze@wiwi.uni-augsburg.de.

approach. All business combinations initiated after March 2004 must be accounted for by using the purchase method; goodwill is no longer amortized, but tested for impairment.

The impairment-only approach has been the subject of much criticism. The issues raised center primarily on the inherent managerial discretion in the process of testing for impairment, and on the resulting blending of acquired goodwill and internally generated goodwill[1]. So far, the question of what additional information is gained in the process has been raised by only a few. Yet, when it introduced the impairment-only approach, one of the FASB's main objectives was to improve the information content of goodwill accounting.

The amortization charge to goodwill has always been difficult to interpret. Many financial analysts consider it irrelevant in their judgment on corporate performance and in valuing shares. Value-based internal control systems such as Economic Value Added (EVA) often make adjustments for the amortization charge by eliminating it from the performance figure used to evaluate management performance. Therefore, the FASB acknowledged "that many users asses goodwill charges differently than other income items, in some cases eliminating them from their analysis of income per share" (FAS 142.B77). Because the impairment-only approach is quite costly in its application, the question arises whether it actually improves the information conveyed by the treatment and what these improvements are.

When looking at the reactions of analysts to recent cases of impairments of goodwill, it becomes evident that the impairment loss is often interpreted as a one-time effect that is attributable either to an overpayment in the purchase price or to an unexpected deterioration in the fundamentals of the business acquired. Despite the many cases and large amounts of impairment losses in the aftermath of the burst of the recent high tech bubble, the stock market reaction to these charges was very limited. On the contrary, the impairment charges seemed to be a consequence, rather than an initiator, of the market movements. Therefore, analysts still recommend that impairment charges be eliminated when analyzing business performance[2].

But, as has been pointed out by Coenenberg/Schultze (2002a), analyzing impairment charges more closely shows that impairments are not only due to overpayments and unexpected deteriorations in business fundamentals, but can also be foreseeable and recurring in nature, and in some cases will even occur without any economically viable reason.

The objective of this paper is to analyze the reasons for impairment charges and its implications for analyzing business performance. The paper is organized as follows: Section 2 presents the relevant rules on impairment testing in FAS 142. Section 3 reviews the literature on the information content of impairment charges. Section 4 discusses the objectives of performance analysis in general and the analysis of goodwill charges in particular. Section 5 identifies different underlying

1 See, e. g., Busse von Colbe (2001b, 877); Hitz/Kuhner (2002, 273); Pellens/Sellhorn (2001a, 717); Pellens/Sellhorn (2001b, 1685).

2 For an analysis see Revsine/Collins/Johnson (2004, 904); Schilit (2002, 213); Stickney/Brown/Wahlen (2004, 473); White/Sondhi/Fried (2003, 526).

reasons for impairments. These reasons have different implications for the performance of the business and its underlying earnings power. Section 6 draws conclusions from the reasons identified on the treatment of these charges in performance analysis. The paper concludes with a summary.

## 2 Goodwill-Impairment According to FAS 142

According to FAS 142, the impairment test requires an annual[3] reassessment of goodwill and is performed at the level of the reporting units. Since goodwill is not directly observable, it is calculated as the difference of the reporting unit's fair value and its net asset value. The test is performed in two steps. Step one tests for a general need for a reduction in the carrying amount of goodwill. Step two determines the amount of the impairment loss.

According to FAS 142.19, if a reporting unit's carrying amount exceeds its fair value, then a potential impairment exists. The fair value of the reporting unit is determined in accordance with FAS 142.23-25. FAS 142.23 regards market values as the best approximation for the fair value of assets. As quoted market prices are often not available and as share prices generally do not include control premia and are therefore not representative, the present value technique of CON 7 is considered the best approach for determining the value of a reporting unit. The rules for valuation laid out in CON 7 correspond with the discounted cash flow method for company valuation. However, the guidance in FAS 142.24 is also consistent with other methods, such as the residual income model, which is useful in this context. The present value technique used in absence of a quoted market price needs to reflect estimates and expectations of the market participants. Only if no such information is available, can the companies' own projections be used without alterations (FAS 142.155).

FAS 142.25 also explicitly allows the method of comparables, as long as the necessary information on comparable companies is available. In terms of cost/benefit considerations, the use of multiples may seem attractive. But from a theoretical perspective it is not adequate. As Damodaran (2001, 251) points out, multiples are designed for relative valuation purposes, i.e., to compare the market prices of identical financial assets, not to determine "intrinsic" fair values. And, as Coenenberg/Schultze (2002b, 699) remark, the method is used specifically to account for market sentiments, which leads to a sensitivity of the derived values to temporary fluctuations. Therefore, it is not consistent with the fair-value definition of the conceptual framework.

In step two of the impairment test, the implied fair value of goodwill is determined according to FAS 142.20 and follows the same rules as in the initial consolidation process. The implied fair value is then compared to its carrying amount. Adjustments to carrying amount are made only to a lower fair value. A later recovery to its original level is prohibited.

3 The test can be performed less often than annually, but only under specific circumstances laid out in FAS 142.27. On the other hand, some events described in FAS 142.28 may induce more frequent impairment testing.

At the time of the initial recognition of the combination, assets and liabilities acquired in the business combination are revalued in accordance with FAS 141.37. Intangible assets are to be identified and capitalized. According to FAS 142.10, internally developed intangible assets acquired are not to be capitalized if they are not identifiable, have an indeterminate useful life, and are inseparable from the business. Intangibles are identifiable when they result from contractual or legal rights, or are separable, i.e., they can be separated from the acquired entity and thus could be individually sold, transferred, rented, licensed, or exchanged (FAS 141.39). Acquired, identifiable assets are valued at their fair values (FAS 142.9). Intangibles that are not identifiable are recognized as part of goodwill (FAS 141.43).

Therefore, the implied fair value of goodwill equals the determined fair value of the reporting unit less the fair value of its net identifiable assets. Net asset value is determined by evaluating all identifiable asset and liabilities at their fair values. As a consequence, both internally developed intangible assets and newly generated hidden reserves increase the fair value of net assets for purposes of the impairment test. However, they are not shown on the balance sheet.

## 3 Review of the Literature on the Information Content of Impairment Charges

Most contributions concerning the impairment-only approach are related to specific accounting issues and creative accounting. Only a few touch on the question of the information conveyed by an impairment charge[4].

Pellens/Crasselt/Sellhorn (2002) investigate the question of whether the impairment test is useful in determining „economic income" as an ideal measure of performance. FAS 142 requires reporting units to conduct an annual valuation of their business. This process seems to be an ideal source to determine the amount of shareholder value generated in the period for value-based management control systems. However, due to the subjectivity of the process and the variables used in the valuation process, these authors conclude that no reliable control measure can be derived from the test.

Hütten/Lorson (2002) discuss the consequences of FAS 142 on internal performance measures. They conclude that the impairment-only approach results in greater volatility in earnings and traditional measures of return. Due to the abolishment of amortization, returns will be increased in normal years and will experience relatively larger decreases in years of impairment losses. When using modern value-based control measures, the impairment charge needs to be carefully revised in order to avoid adverse incentives for management.

Lachnit/Müller (2003) investigate the subject from the perspective of external analysis. To achieve comparability among firms, adjustments for different accounting practices are necessary. Among the different kinds of treatment of goodwill, they regard the amortization of goodwill over a predetermined time horizon as the most useful practice. Only by amortizing goodwill on a systematic basis is it pos-

4 For a review of the pre-FAS 142 literature see Sellhorn (2004, 55-68).

sible to determine "normalized" or "permanent" income as a measure of earnings power, which is computed based on recurring items only. Therefore, the authors recommend recognizing all goodwill, even goodwill written off against equity in the application of the pooling method as well as goodwill subject to the impairment-only approach, and amortizing it over ten years. Such a treatment has considerable consequences on the performance of the German DAX 30 firms.

Hitz/Kuhner (2002) analyze the decision usefulness of the impairment charge by comparing net income before and after write-offs of goodwill to economic income as the theoretical benchmark. Different activities such as marketing, research and development, and personnel development within the firm build up new, internally generated goodwill, but are recognized on the income statement as expenses. Thus, the amortization of goodwill leads to a double counting of expenses, when goodwill is actually not deteriorating but is restored by these activities. The impairment-only approach avoids this problem by eliminating the amortization charge[5]. Instead of recognizing the replacement costs of goodwill on the balance sheet as internally generated goodwill, acquired goodwill remains unimpaired.

The above review raises different research questions: First, it is not clear who should be held responsible for an impairment loss and to what extent. Second, it is unclear whether the impairment charge is a recurring or nonrecurring item, and thus does or does not influence the estimate of earnings power. These questions can only be answered based on the nature of the impairment charge, which I investigate in the following.

## 4 The Role of Charges to Goodwill in Evaluating Business Performance

Generally, financial analysis of accounting information is oriented towards the firm's past and future ability to achieve its economic objectives. In particular, an analyst is interested in the firm's financial stability and its earnings power. His analysis is both retrospective and prospective, in that it uses past experience to derive forecasts. Those forecasts are used as inputs for valuation models to derive the "intrinsic" value of the relevant asset. Capital allocation decisions are taken by comparing the asset's intrinsic value with its current market price. For control purposes, forecasts are compared with actuals and analyzed for deviations. Performance measures also serve as a basis for incentive systems for management. Consequently, the information content of accounting information can be judged by evaluating their relevance for purposes of forecasting as well as controlling[6].

In this context, both the depreciation and the amortization charges have two functions. On the one hand their retrospective function is to match the initial investment outlay with the receipts derived from it, which shows the difference as profit. On the other hand their prospective function is to show the reinvestment necessary for replenishing the firm's capital stock in order to maintain the current earnings in the future. To achieve growth, a firm is required to invest more than what it uses up during the year and writes off.

5 This fact can also be shown empirically; see Jennings/LeClerc/Thompson (2001, 26).

6 See Möller/Hüfner (2002, 412); Penman (2003, 478); Stickney/Brown/Wahlen (2004, 738).

The amortization charge to acquired goodwill is different from other amortization charges in that it only fulfills the retrospective function, not the prospective. Copeland/Koller/Murrin (2000, 176) find that unlike other assets goodwill is not replaced. Thus, no reinvestments in goodwill can be derived from goodwill amortization. Charges to goodwill are considered „noncash" charges, as Stewart (1991, 114) puts it, and should be eliminated from the analysis.

Contrary to acquired goodwill, internally generated goodwill does need to be replaced. But the expenses necessary to do so appear on the income statement not as amortization charges but as part of other items such as research and development, personnel costs, etc. In contrast to depreciation or amortization, the purpose of an impairment charge is only to adjust an asset to its fair value, not to serve in the allocation of the costs. Thus, an impairment charge to goodwill seems to have no prospective function at all.

As White/Sondhi/Fried (2003, 635) point out, only recurring items are relevant to deriving normalized earnings. The latter can be defined as the expected earnings of the firm in a normal year and represent a measure of earnings power. In its determination, analysts should eliminate all charges that are bad indicators for future earnings, such as nonrecurring items. Some of theses charges are actually "one-time effects" and therefore do not affect future performance. Others do reoccur regularly and do affect earnings power. Therefore, the recurring part of these charges should be included in normalized income.

The goodwill-impairment loss appears on the income statement as a separate line item and is mostly considered to be a one-time-effect that has no implications for future performance. This fact has been used by several firms to engage in so-called "big bath" accounting. Because the impairment is considered to result from overpayments or unrealistic expectations at the time of the acquisition, firms use it for earnings management by declaring it a past mistake that is now cleared from the books[7].

When estimating earnings power, the charge to goodwill may not be an indicator for future reinvestments in internally generated goodwill, but in future acquired goodwill. Thus, it is an indicator for management's ability to conduct acquisitions and its willingness to pay premia. As such, the impairment charge should be part of normalized income.

When evaluating the performance of reporting units for purposes of internal control, similar considerations apply. But, as Coenenberg (2003, 585-598) points out, when defining a performance measure, its purpose must be considered. When taking into account all assets, earnings, and charges that are attributable to the reporting unit, the resulting performance measure will be a good indicator for top management on how worthwhile it will be to maintain the unit. However, it is not a good indicator for the performance of the reporting unit's management, since not all components are under its control. Therefore, for the purpose of measuring the performance of a reporting unit's management, all items not under its control and responsibility should be eliminated from the performance measure.

7 For several examples see Schilit (2002, 163, 213); for an analysis see Sellhorn (2004, 146).

Copeland/Koller/Murrin (2000, 176) and Stewart (1991, 114) consider goodwill to be a nonwasting asset. Goodwill represents funds provided by the investors and invested in acquisitions for which the firm must earn the required rate of return. To compute internal control measures, these authors recommend that goodwill be part of capital employed. On the other hand, the effects from charges to goodwill on income are considered irrelevant for the performance measure.

Revsine/Collins/Johnson (2004, 904) find that acquired goodwill is difficult to interpret, because it is comprised of many different components. It involves premia paid for intangible assets that are not individually identifiable, as well as expected future improvements in performance, such as synergies[8]. It also includes overpayments, i. e., premia paid without any future economic benefit. Therefore, the nature of goodwill is ambiguous, and so is the nature of an impairment charge. Due to this ambiguity, the elimination of goodwill charges is necessary.

## 5 Nature of Impairment Charges under FAS 142

Given the concept of FAS 142 as an impairment test, the interpretation of the resulting impairment losses as a nonrecurring item, due to overpayments in the past or unexpected deteriorations of the performance of the business, seems to be self evident. Whereas a closer analysis shows that it may be due to very different reasons.

### *5.1 Impairment Due to Overpayment or Unexpected Deterioration of Performance*

Since overpayments are a substantial component of goodwill, it seems reasonable to assume that in the years after the acquisition, the lack of coverage in future returns becomes evident and leads to write-offs of goodwill. The treatment of goodwill in FAS 141/142 is based on the notion that goodwill is an asset according to CON 6, meeting the criteria of CON 5. Because its components are difficult to interpret and their useful lives are indefinite, goodwill is treated as a nonwasting asset (FAS 142.B75f., B82f.). Goodwill is considered the result of an infinite series of excess returns[9]. The present value of these economic rents is identical to goodwill.

The following example illustrates this interpretation: An initial investment of € 1.000 earns a perpetuity of € 120 per period. At an interest rate of 10%, the present value of this investment is € 1.200. The net present value of the investment amounts to € 200. For all future periods, the firm must earn a residual income of € 20 per period, equivalent to a present value of € 200 identical to the net present value. The present value of the investment of € 1.200 represents its maximum purchase price for the company from the perspective of a rational investor. The extra charge of € 200 over the original investment outlay of € 1.000 is equal to goodwill. If the annual residual income of € 20 is earned in all future years and the costs of

8 For an overview over these components see Sellhorn (2004, 14); Wöhe (1980, 99).

9 See Johnson/Petrone (1998, 298); Johnson/Petrone (2000, 9); Pellens/Sellhorn (2001a, 718); Harris (2000a, b).

capital remain constant, goodwill will maintain its value. An impairment will only be necessary when future residual income falls below €20 or when the costs of capital increase. Such an impairment charge is due to an unexpected deterioration in the performance of the business, e. g., a weaker strategic position or cost structure.

There may be other reasons leading to an impairment, but they cannot be interpreted the same way.

### 5.2 *Impairment as an Anticipated Amortization of Acquired Excess Returns*

An impairment of goodwill occurs when the excess returns that were paid for at the time of the acquisition are diminished in future periods. Forecasting these excess returns is of great importance when estimating the purchase price of a business. In the course of the acquisition process, in order to derive a purchase price that is in line with the business prospects, the future benefits from the acquisition need to be forecasted. The expected excess profits are part of this forecast. Excess returns are the consequence of competitive advantages, allowing the firm to earn returns above the cost of capital. Competitive forces tend to diminish these advantages and reduce returns within an industry to the mean[10]. It may well be that after the acquisition, the new management will be able to maintain excess returns into the far future, but in most cases this ability will be due to newly created competitive advantages, not to the ones that already exist at the time of the acquisition. The useful life of the competitive advantages acquired is thus finite in most cases. As the existence of permanent, infinite excess returns can be considered a rare exception, valuation models typically assume their reduction to a low level in the last stage of the present value formula, the computation of terminal value[11]. Therefore, the erosion of excess returns is part of the business plan and the purchase price. This determines the useful life of acquired goodwill.

As a consequence, an impairment of goodwill may occur even when expectations are precisely met. Such an impairment loss is due neither to overpayments nor to an unexpected deterioration. On the contrary, it has the character of an amortization charge and the method used is similar to a units-of-production method.

The following example demonstrates this reasoning. To be able to separate expected and unexpected events, I assume that the forecasts are exactly met in the future. To keep the calculations as simple as possible, I do not account for taxes and the influence of debt financing. Therefore, I assume full equity financing as well as a residual dividend policy, i. e., full distribution of free cash flows to the owners. *Table 1* provides the details of the business plan of the acquired firm.

10 Several empirical studies have consistently shown a convergence of returns towards the mean; see, e. g., White-Sondhi-Fried (2003, 145).

11 See Coenenberg-Schultze (2002a, 607); Copeland-Koller-Murrin (2000, 272, 286); Damodaran (2002, 308); Ohlson (2001, 109); Penman (2003, 193); Rappaport (1986, 62); Stowe et al. (2002, 71, 83).

*Table 1: Example 1: Business Plan*

| | NPV in $t = 0$ | NPV in $t$ | $t = 0$ | $t = 1$ | $t = 2$ | $t = 3$ | $t = 4$ | $t = 5$ | $t = 6$ | $t = 7 - \infty$ |
|---|---|---|---|---|---|---|---|---|---|---|
| Project $t = 0$ | 221,88 | 221,88 | -1.000 | 450 | 500 | 350 | 200 | | | |
| Project $t = 1$ | 1,53 | 1,69 | | -200 | 90 | 100 | 45 | 5 | | |
| Project $t = 2$ | 9,09 | 11,00 | | | -400 | 150 | 210 | 80 | 60 | 0 |
| Project $t = 3$ | 8,27 | 11,00 | | | | -400 | 150 | 210 | 80 | 60 |
| Project $t = 4$ | 7,52 | 11,00 | | | | | -400 | 150 | 210 | 80 |
| Project $t = 5$ | 6,83 | 11,00 | | | | | | -400 | 150 | 210 |
| Project $t = 6$ | 6,21 | 11,00 | | | | | | | -400 | 150 |
| Projects from $t = 7$ | 62,11 | 11,00 | | | | | | | | -400 |
| OCF | | | 0 | 450 | 590 | 600 | 605 | 445 | 500 | 500 |
| ICF | | | -1.000 | -200 | -400 | -400 | -400 | -400 | -400 | -400 |
| FCF | = 323,44 | | -1.000 | 250 | 190 | 200 | 205 | 45 | 100 | 100 |

The acquired business has developed a proprietary business concept, which, at an initial investment outlay (ICF) of €1.000 and a cost of capital of 10%, will earn a present value (PV) of operating cash flows (OCF) of €1.221,88. Based on this concept, the company is able to invest in consecutive projects with a positive net present value (NPV) (see *table 1*). Adding up the net present values of these projects yields the companies goodwill of €323,44.

*Table 2: Example 1: Residual Income*

| | $t = 0$ | $t = 1$ | $t = 2$ | $t = 3$ | $t = 4$ | $t = 5$ | $t = 6 - \infty$ |
|---|---|---|---|---|---|---|---|
| Operating Cash Flow (OCF) | 0 | 450 | 590 | 600 | 605 | 445 | 500 |
| Depreciation | 0 | -250 | -300 | -400 | -500 | -350 | -400 |
| Net Income | 0 | 200 | 290 | 200 | 105 | 95 | 100 |
| Invested Capital | 1.000 | 950 | 1.050 | 1050 | 950 | 1.000 | 1.000 |
| Costs of Capital 10% | 0 | 100 | 95 | 105 | 105 | 95 | 100 |
| Residual Income (RI) | 0 | 100 | 195 | 95 | 0 | 0 | 0 |

*Table 2* presents the income figures resulting from these projects, based on a straight line depreciation over the useful lives of four years. The residual income figures show the excess returns included in the business plan, which shrink to zero by the year 4. After year 6, the firm reaches a steady-state in which the invested capital amounts to €1.000, depreciation and investment are identical and amount to €400 and the operating cash flows are €500.

*Table 3: Example 1: Valuation based on Residual Income*

| | Total in $t = 0$ | $t = 1$ | $t = 2$ | $t = 3$ | $t = 4$ | $t = 5 - \infty$ |
|---|---|---|---|---|---|---|
| Residual Income (RI) | | 100 | 195 | 95 | 0 | 0 |
| Present Value Factor @ 10% | | 0,9091 | 0,8264 | 0,7513 | 0,6830 | 6,8301 |
| Present Value of RI in $t = 0$ | 323,44 | 90,91 | 161,16 | 71,37 | 0,00 | 0,00 |
| Invested Capital | 1.000,00 | | | | | |
| Fair Value | 1.323,44 | | | | | |

The present value of residual income amounts to €323,44 (see *table 3*) and is identical to the firm's goodwill (Ellis (2001, 105)). Adding it to invested capital at time $t = 0$ of €1.000, yields the businesses fair value of €1.323,44. The same value is obtained by discounting the free cash flows of the firm according to the discounted cash flow (DCF) -method:

*Table 4: Example 1: Valuation based on Discounted Cash Flows*

| | Total in $t = 0$ | $t = 1$ | $t = 2$ | $t = 3$ | $t = 4$ | $t = 5$ | $t = 6 - \infty$ |
|---|---|---|---|---|---|---|---|
| Free Cash Flow (FCF) | | 250 | 190 | 200 | 205 | 45 | 100 |
| Present Value of FCF @ 10% | 1.323,44 | 227,27 | 157,02 | 150,26 | 140,02 | 27,94 | 620,92 |

If we assume that the firm is purchased at its intrinsic value of €1.323,44, an acquired goodwill of €323,44 results. In the following years an impairment test needs to be carried out. For this purpose I assume that the business is not integrated into the acquirers operations and managed as a single reporting unit. *Table 5* shows the fair values of the business in future periods under the assumption that projections are exactly met in the future. Subtracting from it the carrying amounts of equity excluding goodwill yields the implied fair value (FV) of goodwill.

*Table 5: Example 1: Fair Values over time*

| | $t = 0$ | $t = 1$ | $t = 2$ | $t = 3$ | $t = 4$ | $t = 5$ | $t = 6 - \infty$ |
|---|---|---|---|---|---|---|---|
| Fair Value (Present Value of FCF) in t | 1.323,44 | 1.205,79 | 1.136,36 | 1.050,00 | 950,00 | 1.000,00 | 1.000,00 |
| Carrying Amount of Equity excl. Goodwill | 1.000,00 | 950,00 | 1.050,00 | 1.050,00 | 950,00 | 1.000,00 | 1.000,00 |
| Implied FV of Goodwill | 323,44 | 255,79 | 86,36 | 0,00 | 0,00 | 0,00 | 0,00 |

For impairment testing, step 1 requires that we compare the fair value of the business with the carrying amount of equity including goodwill. For $t = 1$ we receive a carrying amount of equity of (950 + 323,44 =) €1.273,44. The fair value of the business amounts to only €1.205,79, resulting in a need to perform step 2 of the test. Comparing the implied fair value of goodwill of €255,79 with its carrying

amount of €323,44 yields an impairment loss of €67,65. *Table 6* shows the calculations for the later periods[12].

*Table 6: Example 1: Impairment Test*

| | $t = 0$ | $t = 1$ | $t = 2$ | $t = 3$ | $t = 4$ | $t = 5 - \infty$ |
|---|---|---|---|---|---|---|
| **Step 1:** | | | | | | |
| Carrying Amount of Equity excl. Goodwill in $t$ | 1.000,00 | 950,00 | 1.050,00 | 1.050,00 | 950,00 | 1.000,00 |
| Carrying Amount of Equity incl. Goodwill in $t$ before Impairment | 1.323,44 | 1.273,44 | 1.305,79 | 1.136,36 | 950,00 | 1.000,00 |
| Fair Value of Equity in $t$ | 1.323,44 | 1.205,79 | 1.136,36 | 1.050,00 | 950,00 | 1.000,00 |
| Difference | 0,00 | -67,65 | -169,42 | -86,36 | 0,00 | 0,00 |
| **Impairment?** | **no** | **yes** | **yes** | **yes** | **no** | **no** |
| **Step 2:** | | | | | | |
| Implied Fair Value of Goodwill | 323,44 | 255,79 | 86,36 | 0,00 | 0,00 | 0,00 |
| Impairment Loss | 0 | -67,65 | -169,42 | -86,36 | 0,00 | 0,00 |
| Carrying Amount of Goodwill | 323,44 | 255,79 | 86,36 | 0,00 | 0,00 | 0,00 |
| Carrying Amount of Equity incl. Goodwill in $t$ after Impairment | 1.323,44 | 1.205,79 | 1.136,36 | 1.050,00 | 950,00 | 1.000,00 |

The example shows that impairment follows the deterioration of excess returns already anticipated in the business plan. The impairment is the result of the progressing realization of the anticipated excess returns. It is not a consequence of unexpected events, and it is recurring in nature. Its character is equivalent to the amortization of a wasting asset[13]. Its useful life is determined by the erosion of excess returns in the business plan.

In practice, in most cases the actual returns in later periods will differ from the original expectations. Then, these unexpected events may lead to impairment charges that are either higher or lower than anticipated. However, only the additional charge has the character of an impairment. Since FAS 142 treats goodwill as a nonwasting asset, the resulting charge will include both amortization and impairment components. The same would happen if we stopped the depreciation of property, plant, and equipment and replaced it with an impairment test: the resulting charge would contain both aspects and could not be interpreted as an impairment as such. To be able to draw conclusions on the firm's earnings power, the two components must be segregated.

12 Step 2 of the impairment test of FAS 142 involves the revaluation of assets and liabilities. For clarity, I consider the consequences of revaluations separately in section 5.4. In sections 5.2 and 5.3 I assume that the fair values of net assets are identical to their carrying amounts.

13 Hitz/Kuhner (2002, 281) find that the erosion of competitive advantages over time leads to a classification of goodwill as a wasting asset.

When actual returns exceed expectations, goodwill will be shielded from an impairment. To prevent the erosion of excess returns anticipated in the original expectations, new competitive advantages must be created. These new competitive advantages create new, internally generated goodwill and replace the acquired goodwill. We know that the impairment-only approach leads to such a replacement of acquired goodwill by internally generated goodwill (Busse von Colbe (2001b, 877); Pellens/Sellhorn (2001a, 717); Pellens/Sellhorn (2001b, 1685)). The example shows that this replacement is due to a blending of the amortization of acquired goodwill and the appreciation of internally generated goodwill. By creating new goodwill, an impairment charge to acquired goodwill is prevented by the appreciation of internally generated goodwill. Instead of showing both effects on the income statement, the expense for amortization on the one side and the revenue from the appreciation on the other, both effects are netted and result in a reduction of the impairment charge.

For analytical purposes this kind of treatment is unsatisfactory in that it mixes the amortization, appreciation, and impairment of different assets. It would be beneficial to separate these components, as only then would deviations from the original expectations be revealed. An amortization of goodwill would then imply that all expectations were met. An impairment charge would imply that expectations could not be met, equivalent to the interpretation laid out in section 5.1. An appreciation of internally generated goodwill would show the build-up of new competitive advantages. This information gain comes at the cost of showing acquired and internally generated goodwill in separate positions. Traditionally, such a capitalization of internally generated goodwill has been rejected in both the literature and in practice. But, as the analysis shows, the impairment-only approach does in fact lead to a capitalization of internally generated goodwill, but disguised as acquired goodwill.

Therefore, the current treatment of FAS 142 implies that an impairment occurs even when past projections have been met, but management has not been capable of creating enough new competitive advantages to prevent goodwill from deteriorating. Thus the impairment charge would offer insights into the companies future. Unfortunately, there are cases when such an interpretation is false.

### 5.3 *Impairment as a Transitory Effect Due to Investing Activities*

According to FAS 142, implied fair value of goodwill is measured by the difference of the fair value of the reporting unit and the fair value of its net identifiable assets. Thus, a decrease of the implied fair value of goodwill is not only a consequence of a decrease in the fair value of the reporting unit, but also the result of an increase in the fair value of its net assets. Such an increase can occur due to investing activities. The following example shows that such investing activities can lead to a decrease in the implied fair value of goodwill and an impairment loss, even when they create positive net present value. *Table 7* shows the structure of the cash flows of the business in question.

*Table 7: Example 2: Business Plan*

| | $t = 0$ | $t = 1$ | $t = 2$ | $t = 3$ | $t = 4$ | $t = 5 - \infty$ |
|---|---|---|---|---|---|---|
| Operating Cash Flow (OCF) | 0 | 450 | 470 | 550 | 600 | 510 |
| Investing Cash Flow (ICF) | -1.000 | -400 | -400 | -400 | -400 | -400 |
| Free Cash Flow (FCF) | -1.000 | 50 | 70 | 150 | 200 | 110 |

For the cash flows in *table 7* we can determine the resulting income, given straight line depreciation and a useful life of four years, presented in *table 8*.

*Table 8: Example 2: Business Plan based on Residual Income*

| | $t = 0$ | $t = 1$ | $t = 2$ | $t = 3$ | $t = 4$ | $t = 5 - \infty$ |
|---|---|---|---|---|---|---|
| Depreciation | 0 | -250 | -350 | -450 | -550 | -400 |
| Net Income | 0 | 200 | 120 | 100 | 50 | 110 |
| Invested Capital | 1.000 | 1.150 | 1.200 | 1.150 | 1.000 | 1.000 |
| Costs of Capital 10% | 0 | 100 | 115 | 120 | 115 | 100 |
| Residual Income (RI) | 0 | 100 | 5 | -20 | -65 | 10 |

*Table 9: Example 2: Valuation based on Free Cash Flows and Residual Income*

| | Total in $t = 0$ | $t = 1$ | $t = 2$ | $t = 3$ | $t = 4$ | $t = 5 - \infty$ |
|---|---|---|---|---|---|---|
| Present Value of FCF in $t = 0$ | 1.103,92 | 45,45 | 57,85 | 112,70 | 136,60 | 751,31 |
| Present Value of RI in $t = 0$ | 103,92 | 90,91 | 4,13 | -15,03 | -44,40 | 68,30 |
| Invested Capital in $t = 0$ | 1.000,00 | | | | | |
| Fair Value in $t = 0$ | 1.103,92 | | | | | |

The valuation of the business shown in *tables 7* and *8* at a cost of capital of 10% yields a fair value of €1.103,92 (see *table 9*). Assuming that a purchase price of €1.070 is actually paid for it, the acquired goodwill is €70. *Table 10* shows the fair values of the business in the future, under the assumption that it is managed as a reporting unit (RU) and forecasts are met in the future. The carrying amount of its equity exceeds the businesses fair values in periods 1, 2 and 3.

*Table 10: Example 2: Future fair values*

| | $t = 0$ | $t = 1$ | $t = 2$ | $t = 3$ | $t = 4$ | $t = 5 - \infty$ |
|---|---|---|---|---|---|---|
| Fair Value of Reporting Unit in $t$ | 1.103,92 | 1.164,31 | 1.210,74 | 1.181,82 | 1.100,00 | 1.100,00 |
| Carrying Amount of Equity incl. Goodwill without considering Impairment Charges | 1.070,00 | 1.220,00 | 1.270,00 | 1.220,00 | 1.070,00 | 1.070,00 |
| Difference | 33,92 | -55,69 | -59,26 | -38,18 | 30,00 | 30,00 |
| Ratio Fair Value/Carrying Amount | 1,03 | 0,95 | 0,95 | 0,97 | 1,03 | 1,03 |

In *table 11* the impairment tests are conducted. Step 1 shows impairments in periods 1 and 2. Step 2 determines the amount of the write-off. After period 2 goodwill is reduced to a carrying amount of €10,74.

*Table 11: Example 2: Impairment Test*

| | $t = 0$ | $t = 1$ | $t = 2$ | $t = 3$ | $t = 4$ | $t = 5 - \infty$ |
|---|---|---|---|---|---|---|
| **Step 1:** | | | | | | |
| Carrying Amount of Equity incl. Goodwill in $t$ before Impairment in $t$ | 1.070,00 | 1.220,00 | 1.214,31 | 1.160,74 | 1.010,74 | 1.010,74 |
| Fair Value of Reporting Unit in $t$ | 1.103,92 | 1.164,31 | 1.210,74 | 1.181,82 | 1.100,00 | 1.100,00 |
| Difference | 33,92 | -55,69 | -3,57 | 21,07 | 89,26 | 89,26 |
| **Impairment?** | **no** | **yes** | **yes** | **no** | **no** | **no** |
| **Step 2:** | | | | | | |
| Implied Fair Value of Goodwill | 103,92 | 14,31 | 10,74 | 31,82 | 100,00 | 100,00 |
| **Impairment** | | **-55,69** | **-3,57** | **0,00** | **0,00** | **0,00** |
| Carrying Amount of Goodwill | 70,00 | 14,31 | 10,74 | 10,74 | 10,74 | 10,74 |
| Carrying Amount of Equity excl. Goodwill in $t$ | 1.000,00 | 1.150,00 | 1.200,00 | 1.150,00 | 1.000,00 | 1.000,00 |
| Carrying Amount of Equity incl. Goodwill in $t$ after Impairment | 1.070,00 | 1.164,31 | 1.210,74 | 1.160,74 | 1.010,74 | 1.010,74 |

In the example, the future prospects of the firm are not deteriorating. The fair value of the business does not fall below the initial purchase price of €1.070, from period 4 it remains constant at €1.100. The impairment is only due to a transitory increase of the invested capital relative to the fair value of the business. Its long run perspectives remain the same. The impairment charges in $t = 1$ and $t = 2$ lead to an initial alignment of fair value and carrying amount, but the impairment charge has no useful implications. Because a later recovery to its original level is prohibited in FAS 142, the difference between fair value and carrying amount in the long run is larger than without impairment (see *figure 1*).

*Figure 1: Example 2: Comparison of Fair Values and Carrying Amounts*

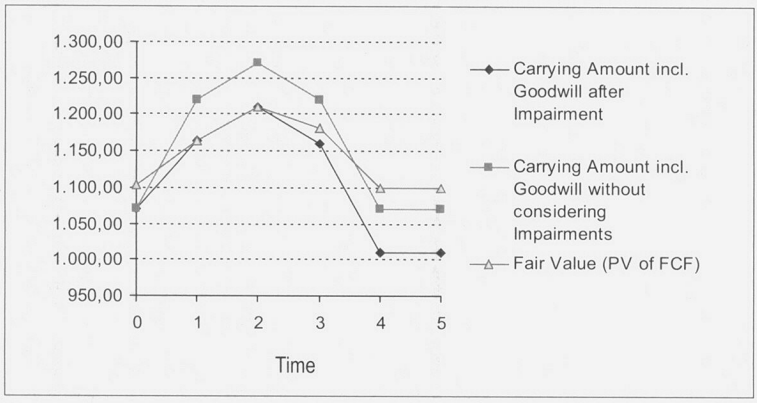


*Table 12* shows a slightly modified example in which the sum of operating cash flows remains the same as in example 2. However, their timing is shifted to later periods, reducing their present value to € 1.082,97.

*Table 12: Example 3: Valuation based on Cash Flows and Residual Income*

| | $t = 0$ | $t = 1$ | $t = 2$ | $t = 3$ | $t = 4$ | $t = 5 - \infty$ |
|---|---|---|---|---|---|---|
| Operating Cash Flow (OCF) | 0 | 370 | 450 | 550 | 700 | 510 |
| Investing Cash Flow (ICF) | -1.000 | -400 | -400 | -400 | -400 | -400 |
| Free Cash Flow (FCF) | -1.000 | -30 | 50 | 150 | 300 | 110 |
| Residual Income (RI) | 0 | 13 | -22 | -27 | 28 | 3 |
| Present Value FCF in $t = 0$ | 1.082,97 | -27,27 | 41,32 | 112,70 | 204,90 | 751,31 |
| Present Value RI in $t = 0$ | 12,97 | 11,82 | -18,18 | -20,29 | 19,12 | 20,49 |
| Invested Capital | 1.070,00 | | | | | |
| Fair Value | 1.082,97 | | | | | |

*Table 13: Example 3: Step 1 of the Impairment Test*

| | $t = 0$ | $t = 1$ | $t = 2$ | $t = 3$ | $t = 4$ | $t = 5 - \infty$ |
|---|---|---|---|---|---|---|
| Carrying Amount of Equity incl. Goodwill in t before Impairment | 1.070,00 | 1.220,00 | 1.270,00 | 1.220,00 | 1.070,00 | 1.070,00 |
| Fair Value of Reporting Unit in $t$ | 1.082,97 | 1.221,26 | 1.293,39 | 1.272,73 | 1.100,00 | 1.100,00 |
| Difference | 12,97 | 1,26 | 23,39 | 52,73 | 30,00 | 30,00 |
| Ratio Fair Value/Carrying Amount | 1,01 | 1,00 | 1,02 | 1,04 | 1,03 | 1,03 |
| Impairment? | no | no | no | no | no | no |

As *table 13* shows, the fair values of the business exceed its carrying amounts in all periods and no impairment occurs. In both examples the fair value exceeds the carrying amount by € 100 in the long run. Only in example 3 is the goodwill kept on the books, even though example 2 is the economically more viable business.

*Table 14: Comparison of Examples 2 and 3*

| | $t = 0$ | $t = 1$ | $t = 2$ | $t = 3$ | $t = 4$ | $t = 5 - \infty$ |
|---|---|---|---|---|---|---|
| FCF example 2 | -1.000 | 50 | 70 | 150 | 200 | 110 |
| Fair Value (Present Value of FCF) example 2 | 1.103,92 | 1.164,31 | 1.210,74 | 1.181,82 | 1.100,00 | 1.100,00 |
| FCF example 3 | -1.000 | -30 | 50 | 150 | 300 | 110 |
| Fair Value (Present Value of FCF) example 3 | 1.082,97 | 1.221,26 | 1.293,39 | 1.272,73 | 1.100,00 | 1.100,00 |

Comparing the two examples (see *table 14*) shows that in example 3 the impairment can be avoided, because the cash flows occur at a later point in time, resulting in a higher present value of remaining free cash flows. However, it is not in the interest of shareholders to earn their returns later. The earlier that cash flows reach them, the higher the accumulated shareholder wealth[14]. As in example 2, a larger share of cash flows is earned in earlier periods, the present value of remaining cash flows is smaller than in example 3. What is in the owners' best interest leads to an impairment and thus to a reduction of the performance measures.

This kind of impairment can neither be attributed to a deterioration of business fundamentals nor its prospects, but only to a transitory reduction of the ratio of fair value and carrying amount. In other words, to the market-to-book-ratio. This ratio is also known as the profitability index in capital budgeting and is not a useful measure for selecting investment projects[15]. Due to its negative effect on income, the impairment leads to a discrimination of economically viable projects.

### 5.4 Impairment Due to Increases in the Fair Value of Net Assets

A reduction in the implicit fair value of goodwill can also result from increases in the fair value of net identifiable assets. In accordance with FAS 142.21, the implied fair value of goodwill is determined by using the same rules as for its initial recognition. The determination of the fair value of net assets requires the revaluation of assets and liabilities to their fair values, including the identification of intangible asset that have not been capitalized. However, this revaluation and identification is only performed for purposes of impairment testing and is not carried over to the books.

14 Example 2 leads to a future value in $t = 5$ of € 1.777,78 compared to € 1.744,13 in example 3.

15 The profitability index gives no information on the project with the highest increase in wealth, only on the highest increase per unit of invested capital, which is only of importance under capital rationing. See, e. g., Brealey/Myers (2003, 106).

*Table 15: Example 4: Impairment and Revaluation*

| | |
|---|---|
| Fair Value of Equity (Present Value of FCF) in $t = 1$ | 1.227,27 |
| Carrying Amount of Equity incl. Goodwill before Revaluation | 1.230,00 |
| Impairment before Revaluation | -2,73 |
| Carrying Amount of Goodwill | 80,00 |
| Carrying Amount of Equity excl. Goodwill before Revaluation | 1.150,00 |
| Higher Fair Value of recognized Assets | 20,00 |
| Separable Intangible Assets at Fair Value, not capitalized | 50,00 |
| Carrying Amount of Equity excl. Goodwill after Revaluation | 1.220,00 |
| Implied Fair Value of Goodwill | 7,27 |
| Impairment after Revaluation | -72,73 |

*Table 15* contains an example showing that any excess of the fair values of assets over their carrying amount increases the impairment loss. The same is true for any newly identified intangible asset. However, the economic substance behind this decrease in value of goodwill is that parts of it have become identifiable and separable, and therefore will be carried on the books separately. The decrease in goodwill would be accompanied by an equivalent increase in intangible assets or the values of other assets, leaving income unaffected. The fact that FAS 142 prohibits the actual revaluation and identification in the books leads to an impairment loss with no economically sensible meaning. The successful completion of, say, an R&D project and the resulting valuable patent causes an impairment loss. This kind of impairment can at best be justified with an extreme interpretation of the prudence principle. It is the consequence of a full fair value accounting brought about only half-heartedly. Instead of showing an impairment charge against income, the revalued amounts and identified assets should instead be capitalized and transferred from goodwill.

## 6 Implications

Section 5 identified various reasons leading to an impairment. This section analyzes the implications of the above results on the treatment of impairment losses in performance analysis. I am particularly interested in the question as to who should be held responsible for the impairment loss and its impact on earnings power.

Acquired goodwill is a result from premia paid for acquired businesses, which may or may not have been justified. These premia are justified when they are covered by future excess returns. Premia paid in excess of the present value of these excess returns lead to unjustified goodwill, as a result of bad negotiations or overly optimistic expectations (overpayments). The latter is attributable to top management and so is an impairment loss that results from it. The impairment charge is often nonrecurring in nature and should be included in the estimate of normalized income only as an indicator for the management's ability to conduct acquisitions and its willingness to pay premia.

Impairment losses can also result from justified premia and can be a consequence of unexpected or expected events, as well as happen for purely computational reasons. When an impairment is a consequence of an expected erosion of excess returns already included in the business plan, it is recurring in nature. As discussed above, a convergence of excess returns is common to most industries and should therefore be considered in the determination of the purchase price. The expected erosion provides an amortization schedule for goodwill. The impairment charges resulting from this anticipated erosion are recurring in nature and should be part of normalized earnings. Since top management is responsible for paying these premia, it is also responsible for the later realization of the expected returns. The reporting units' management is responsible for the integration of the businesses and bringing the plans to action.

When deviations from expectations occur, they must be identified and analyzed in order to hold management responsible. Internal performance measures are used to give incentives to the reporting units' management to act in the best interests of top management and the shareholders. An erosion of excess returns that exceeds expectations results in impairment losses in excess of the expected amortization. These losses can be attributed to fading competitive advantages or negative changes in the industry structure. Different underlying factors can be the reason for these developments, which can be strategic as well as operating in nature. If the reporting unit's management is to be held responsible for purposes of internal control, the reasons for the impairment loss need to be clearly identified and must be attributable directly to the unit.

Such an impairment loss will also have great implications for the firm's earnings power. In later periods the consequences will show up as decreases in earnings or increases in costs. Therefore, the impairment charge should be included in normalized income. Because it is a one-time-effect, to show its impact on permanent income it needs to be modified and reduced to an average value. In this context, it serves as an indication for decreases in future profitability, not for future investments in goodwill. This kind of impairment conveys only indirect information about other revenues and expenses, information that can be obtained from other sources as well. This fact may well be the reason why some impairments result in no stock market reaction, as was discussed above.

When the erosion of excess returns is slower than expected, goodwill impairment will be less than anticipated. This deviation from expectations will be due to newly created competitive advantages and improvements in industry structure. Therefore, the above remarks on negative deviations from expectations apply with the opposite sign.

Under FAS 142, newly created goodwill reduces impairment charges and so creates incentives for management to engage in activities that will create new goodwill, which is in the best interest of shareholders. However, these effects are not shown openly. For the purposes of analysis, separating anticipated amortization of goodwill, unexpected impairments of goodwill, and newly created goodwill is necessary. Although amortization is a recurring item, the other two are nonrecurring in nature. All three are relevant for making forecasts for a business's future, but need to be treated differently.

Two more effects have been identified that also lead to impairment losses, both based on increases in the fair value of net assets. In both cases positive actions, such as investing activities with positive net present value and the creation of new intangible assets, led to impairment losses. Therefore, both have no economically viable implications for judging business performance and earnings power. Such impairment charges need to be identified and eliminated. *Table 16* summarizes these results.

*Table 16: Underlying Reasons and Implications of Goodwill Impairments*

| Reasons for the impairment | Responsibility | | Relevance for judging earnings power |
|---|---|---|---|
| | Reporting Unit-Management | Top-Management | |
| 1. Overpayment | No | Yes | Indicator for future overpayments |
| 2. Anticipated erosion of excess returns (amortization) | Yes | Yes | Yes (recurring) |
| 3. Erosion of excess returns exceeds expectations (in excess of No. 2) | Depend on the underlying reasons (strategic/operating) | Depend on the underlying reasons (strategic/operating) | Only indirectly (Indicator for other costs or revenues) |
| 4. Creation of new excess returns (compensating No. 2) | See No. 3 | See No. 3 | See No. 3 |
| 5. Increases in Fair Value of Net Assets relative to the Fair Value of Reporting Unit | No (eliminate) | No (eliminate) | No (eliminate) |

## 7 Summary

This paper investigates the nature of goodwill impairments under FAS 142 and their relevance for judging a businesses past performance and earnings power. In particular, I raise two questions: who should be held responsible for such impairments, and what do the impairments imply for future performance? To be able to hold management accountable, it must be in charge and in control of the relevant processes. A firm's profitability is often judged by determining normalized earnings as a measure of its earnings in a normal year.

FAS 142 treats goodwill as a nonwasting asset. This treatment induces the user to interpret the resulting loss as a nonrecurring event. In some cases this interpretation will be true, as it can be due to overpayments or unexpected deteriorations of the business. But in other cases it will not.

Goodwill is a consequence of future excess returns. Excess returns result from competitive advantages, but competitive advantages are seldom permanent. Therefore, goodwill is a wasting asset. When wasting assets are no longer amortized, any impairment test will result in a blending of amortization and impair-

ment charges. Since the erosion of excess returns can be anticipated at the time of the acquisition, an amortization schedule for acquired goodwill is included in the determination of its purchase price. Amortization and impairment charges have different implications, so they are commonly separated for all wasting assets. The same treatment is required for goodwill. Amortization charges are recurring in nature and have implications for future earnings. They should be distinguished from impairment charges and also be included in measures of performance and earnings power.

When the erosion of excess returns exceeds original expectations, the impairment will exceed amortization. Only the difference can be considered an impairment charge and a nonrecurring item. Its reasons need to be investigated so that shareholders and analysts can hold management responsible and derive consequences for future performance. When the erosion is slower, the opposite holds true. Goodwill amortization will be shielded by newly created goodwill. The non-impairment leads to a blending of acquired goodwill and internally generated goodwill. Under FAS 142, neither its components nor their changes in value are shown separately, but instead are netted.

To prevent goodwill from deteriorating, new excess returns and thus competitive advantages need to be created. Thus, an impairment loss can serve as an indicator of management's ability to create excess returns. However, in some cases, an impairment results for purely technical reasons, making a clear interpretation impossible. An impairment loss will occur when investing activities, increases in the fair values of assets or newly created intangible assets, increase the fair value of net assets. These events may lead to a discrimination of economically viable activities. The resulting impairment loss cannot be interpreted as an expense and must be eliminated. The guidance in FAS 142.21, which requires that firms measure the impairment loss by including newly created fair values and identifiable assets while prohibiting their capitalization, creates misleading accounting and is a consequence of an only half-hearted implementation of full-fair-value accounting. The IASB has avoided this problem by limiting its impairment test of goodwill to step one. The other critical points raised above are also true for impairment charges under IFRS 3 and IAS 36.

All identified reasons, which were discussed in detail, have different implications for performance analysis. In most cases, such a differentiation will require an in-depth analysis of the underlying factors, which may be feasible for purposes of internal control. However, in external financial statement analysis the required data will mostly be unavailable, so the character of the impairment charge will remain unclear. It is not surprising that the elimination of goodwill charges is still common practice among analysts.

## References

Brealey, Richard A., and Stewart C. Myers (2003), *Principles of Corporate Finance*, 7th Edition, New York et al.: McGraw Hill.

Busse von Colbe, Walther (2001a), Bilanzierung des Goodwill – FASB bläst zum Rückzug, *Betriebs-Berater* 56, 1.

Busse von Colbe, Walther (2001b), Ist die Bilanzierung des Firmenwertes nach dem Nonamortization-Impairment-Ansatz des SFAS-Entwurfs von 2001 mit § 292a HGB vereinbar?, *Der Betrieb* 54, 877–879.

Coenenberg, Adolf G. (2003), *Kostenrechnung und Kostenanalyse*, 5th Edition, Stuttgart: Schäffer Poeschel.

Coenenberg, Adolf G. and Wolfgang Schultze (2002a), Unternehmensbewertung: Konzeptionen und Perspektiven, *Die Betriebswirtschaft* 62, 597–621.

Coenenberg, Adolf G and Wolfgang Schultze (2002b), Das Multiplikator-Verfahren in der Unternehmensbewertung: Konzeption und Kritik, *Finanz Betrieb* 4, 697–703.

Copeland, Tom E., Tim Koller and Jack Murrin (2000), *Valuation*, 3rd Edition, New York: Wiley.

Damodaran, Aswath (2002), *Investment Valuation*, 2nd Edition, New York: Wiley.

Ellis, Martin (2001), Goodwill Accounting: Everything has changed and nothing has changed, *Journal of Applied Corporate Finance* 14, 103–112.

FASB (2001), Official Releases: FASB No. 141, FASB No. 142, SAS No. 94, *Journal of Accountancy* 192, 115–147.

Harris, Trevor (2000a), Accounting for Business Combinations: A Workable Solution, Presentation to the FASB, http://www.itaa.org/software/act/gspres.ppt (30.10.01).

Harris, Trevor (2000b), An Overview of "Accounting for Business Combinations: A Workable Solution", http://banking.senate.gov/00_06hrg/061400/harris.htm (30.10.01).

Hitz, Jörg-Markus and Christoph Kuhner (2002), Die Neuregelung des derivativen Goodwill nach SFAS 141 und 142 auf dem Prüfstand, *Die Wirtschaftsprüfung* 55, 273–287.

Hütten, Christoph and Peter Lorson (2002), Überlegungen zur neuen Goodwillbilanzierung nach SFAS 142 aus Controlling-Perspektive, *Zeitschrift für Kapitalmarktorientierte Rechnungslegung* 2, 25–33.

Jennings, Ross, Marc LeClere and Robert B. II Thompson (2001), Goodwill Amortization and the Usefulness of Earnings, *Financial Analysts Journal* 57, 20–28.

Johnson, L. Todd and Kimberley R. Petrone (1998), Is Goodwill an Asset?, *Accounting Horizons* 12, 293–303.

Johnson, L. Todd and Kimberley R. Petrone (2000), Why did the board change its mind on goodwill amortization?, *FASB Status Report No. 331*, December 2000, 8–10.

Lachnit, Laurenz and Stefan Müller (2003), Bilanzanalytische Behandlung von Geschäfts- oder Firmenwerten, *Zeitschrift für Kapitalmarktorientierte Rechnungslegung* 3, 540–550.

Möller, Hans Peter and Bernd Hüfner (2002), Zur Bedeutung der Rechnungslegung für den deutschen Aktienmarkt – Begründung, Messprobleme und Erkenntnisse empirischer Forschung, in Gerhard Seicht (ed.), *Jahrbuch für Controlling und Rechnungswesen*, Wien: LexisNexis, 405–463.

Ohlson, James (2001), Earnings, Book Values, and Dividends in Equity Valuation: An Empirical Perspective, *Contemporary Accounting Research* 18, 107–120.

Pellens, Bernhard and Thorsten Sellhorn (2001a), Neue Goodwill-Bilanzierung nach US-GAAP – Der Impairment-Only Approach des FASB, *Der Betrieb* 54, 713–720.

Pellens, Bernhard and Thorsten Sellhorn (2001b), Goodwill-Bilanzierung nach SFAS 141 und 142 für deutsche Unternehmen, *Der Betrieb* 54, 1681–1689.

Pellens, Bernhard and Thorsten Sellhorn (2002), Neue US-Goodwill-Bilanzierung steht deutschen Unternehmen nun offen – DRS 1a vom Bundesministerium der Justiz bekannt gemacht, *Zeitschrift für Kapitalmarktorientierte Rechnungslegung* 2, 113–114.

Penman, Stephen H. (2003), *Financial Statement Analysis and Security Valuation*, 2nd Edition, New York et al.: McGraw Hill.

Rappaport, Alfred (1986), *Creating Shareholder Value*, New York/London: Free Press.

Revsine, Lawrence, Daniel Collins and W. Bruce Johnson (2004), *Financial Reporting and Analysis*, 3. Edition, Upper Saddle River: Prentice Hall.

Schilit, Howard (2002), Financial Shenanigans: *How to detect Accounting Gimmicks and Fraud in Financial Reports*, 2nd Edition, New York et al.: McGraw Hill.

Sellhorn, Thorsten (2004), *Goodwill Impairment*, Frankfurt am Main: Peter Lang.

Stewart, G. Bennett III (1991), *The Quest for Value*, New York: Harper Business.

Stickney, Clyde P., Paul R. Brown and James M. Wahlen (2004), *Financial Reporting and Analysis*, 5th Edition, New York: Thomson/South-Western.

Stowe, John D., Thomas R. Robinson, Jerald E. Pinto and Dennis W. McLeavey (2002), *Analysis of Equity Investments: Valuation*, Charlottesville: Association for Investment Management and Research (AIMR).

White, Gerald I., Ashwinpaul C. Sondhi and Dov Fried (2003), *The Analysis and Use of Financial Statements*, 3rd Edition, New York: Wiley.

Wöhe, Günter (1980), Zur Bilanzierung und Bewertung des Firmenwertes, *Steuer und Wirtschaft* 59, 89–108.