

Full-Goodwill Method of Accounting for Business Combinations and Quality of Financial Statements

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Accounting goodwill arises as a result of business combinations and appears in a consolidated balance sheet of an acquirer. It is an intangible asset which reflects an excess of value of an acquired business as a whole over a summed value of its identifiable net assets. Since 2010, the International Financial Reporting Standards (IFRS) allow for two alternative methods of measuring goodwill in those business combinations, where an acquirer obtains a control over a target company without obtaining 100% share in its shareholder's equity. Under one of these methods, which is called a "full-goodwill method", the goodwill attributable to non-controlling interests in subsidiary is measured at fair value. Thus, the main accounting problem with this method lies in its requirement to estimate the fair value of non-controlling interests. This paper suggests that the "full-goodwill method" may sacrifice financial statement reliability for its alleged relevance, with significant potential for "creative accounting". The problems with reliability and transparency of financial statements, when "full-goodwill method" is applied, are illustrated by a real-life example of the takeover of Formula Systems Ltd. by Asseco Group (one of the biggest IT companies in Europe, listed on the Warsaw Stock Exchange).

Keywords: goodwill, full-goodwill method, business combinations, financial statement quality, fair value accounting

Introduction

Corporate intangible assets can be either purchased (individually or as part of a business combination) or internally generated (Vašek & Filinger, 2013). Goodwill is an intangible asset that is typically paid for in a business combination when the consideration paid to acquire the target company exceeds the fair value of the target's net assets (Robinson, Henry, Pirie, & Broihahn, 2012). Thus, goodwill is a purchased intangible asset and reflects an excess of the value of a company as a whole (i.e., as an organized business) over the summed value of its individual identifiable assets and liabilities. Under International Financial Reporting Standards (IFRS), when a company acquires another company and records part of the acquisition price as goodwill, the goodwill is capitalized as an asset and no periodic amortization charges are taken against it. Instead, companies must evaluate goodwill and other acquired intangible assets for impairment annually or whenever events or changes in circumstances indicate that the value of such an asset is impaired.

This paper discusses one of the accounting problems with measurement of goodwill in cases where an acquirer obtains control over the target company without obtaining 100% ownership in its shareholders equity. In such instances, there are two broad categories of subsidiary's shareholders: a controlling entity, which

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consolidates the subsidiary's financial results and net assets in its consolidated financial statements, and non-controlling interests, also known as minority interests. Figure 1 presents a hypothetical example of such shareholding structure.

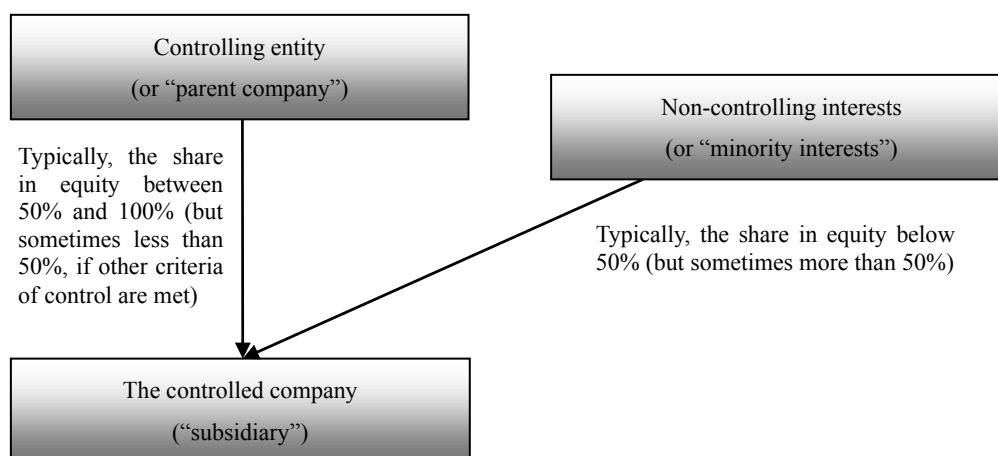


Figure 1. A hypothetical example of a control of a parent company over its subsidiary without full ownership of the subsidiary's shareholder's equity. Source: the author.

In business combinations (also called mergers and acquisitions), resulting in ownership structures similar as depicted in Figure 1 (i.e., with non-controlling interests in the subsidiary's shareholder's equity), two alternative approaches to measuring non-controlling interests and related goodwill are permitted under IFRS. Under one of these approaches, called "full-goodwill method", the non-controlling interests may be measured with an application of subjective valuation techniques.

Among the fundamental concepts of accounting are such qualitative characteristics of financial statements as reliability, comparability, transparency, and relevance. Accounting information is deemed to be reliable if it is verifiable and neutral, where neutrality means that a company cannot select information to favour one set of interested parties over another (Kieso, Weygandt, & Warfield, 2010). Comparability of financial information means that decision makers can compare it with similar information about another company. Transparency, in turn, refers to the principle of creating an environment where accounting information is understandable to market participants (Lepădatu & Pîrnău, 2009). Finally, to be relevant, accounting information must be capable of making a difference in a decision. Financial statements, to have high quality, should be reliable, comparable, transparent, and relevant simultaneously. However, it is often argued that there exists an inevitable trade-off between some of these features, particularly between reliability and relevance of accounting information (Spalding, 2011). For example, historical cost (as the measurement basis for carrying values of assets) is considered relatively reliable but may be irrelevant for decision makers (because of its lacking relationship with the changes of asset's market values). In contrast, fair values of assets may be relevant (if their valuations are verifiable) but may often be unreliable, particularly if their estimates are not backed by directly observable and objective market data. Thus, any accounting information may be considered relevant only if it is sufficiently reliable. It is argued in this paper that significant dose of discretion and subjective judgments inherent in the "full-goodwill method" of accounting for business combinations may erode the reliability, comparability, and transparency of consolidated financial statements, particularly in case of companies engaged in multiple business combinations. Thus, in the author's opinion, the "full-goodwill method" sacrifices reliability,

comparability, and transparency of financial statements for their alleged relevance, resulting in accounting information which may be neither relevant nor reliable, comparable, and transparent.

Accounting goodwill is generally considered to be a “soft” and doubtful asset which is highly prone to manipulations and misreporting (Fridson & Alvarez, 2002; Schilit, 2002; Stickney, Brown, & Wahlen, 2004; Giroux, 2006). However, the majority of empirical studies on goodwill focus either on those accounting problems which relate to its impairment testing after initial recognition or on its impact on stock prices and credit-risk metrics. This paper, in contrast, discusses important problems with the initial recognition of goodwill in those business combinations where non-controlling interests in a target company are present. Given that the “full-goodwill method” is allowed by IFRS only since 2010 (although it was permitted before by the United States Generally Accepted Accounting Principles (US GAAP)), the topic is relatively new, empirically unexplored and omitted by most currently available textbooks on financial statement analysis.

The paper is organized as follows. In the following section, the principles of measuring goodwill under IFRS are summarized. Then, the main accounting problems stemming from fair value estimates required by “full-goodwill method” and the impact of that method on reliability, comparability, and transparency of financial statements are discussed in Sections 3 and 4 respectively. Next, the problems with reliability, comparability, and transparency of consolidated financial statements, resulting from “full-goodwill method”, are illustrated in Section 5 by a real-life case-study of Asseco Group (one of the largest IT companies in Europe, listed on the Warsaw Stock Exchange). Finally, the paper closes with concluding remarks.

Measurement of Goodwill Under IFRS

Paragraph 32 of IFRS 3 states that the acquirer shall recognise goodwill as of the acquisition date measured as the excess of (1) over (2) below:

(1) The aggregate of:

(a) The consideration transferred measured in accordance with the Standard;

(b) The amount of any non-controlling interest in the acquiree measured in accordance with the Standard;

(c) In a business combination achieved in stages, the acquisition-date fair value of the acquirer’s previously held equity interest in the acquiree.

(2) The net of the acquisition-date amounts of the identifiable assets acquired and the liabilities assumed measured in accordance with the Standard.

Thus, according to Paragraph 32 of IFRS 3, in the case of shareholding structures similar as shown in Figure 1, an initial recognition of goodwill requires the measurement of value of any non-controlling interests in an acquired subsidiary.

Until 2010, the IFRS allowed for only one method of computing goodwill resulting from business combinations with non-controlling interests. Namely, the goodwill was computed as the simple difference between the consideration paid for the controlling interest and the acquirer’s share in the fair-value of net assets of a target company. It meant that goodwill presented in the consolidated assets reflected only that part of the full goodwill which is attributable to the acquirer and excluded any goodwill attributable to the non-controlling interests. This approach to computing goodwill is still permitted under IFRS (as one of the two alternatives) and is called a “partial-goodwill method”. On the opposite side of the balance sheet, this method resulted in recognizing the non-controlling interests (reported in consolidated shareholders’ equity) at the value equal to the share of these non-controlling interests in the net assets of the acquired entity.

However, since 2010, the IFRS allowed for the alternative approach, called a “full-goodwill method”, which has already been permitted before by US GAAP. Under this approach, the goodwill is recognized in the consolidated assets at its full value and includes both the goodwill attributable to the controlling and the non-controlling interests. As a result, under this approach, the carrying value of goodwill is higher, because it covers the full goodwill and not only its part attributable to the acquirer. However, given that now the total consolidated assets of an acquirer are valued higher than under the “partial-goodwill method” (as a result of higher goodwill), also the “right-hand side” of the balance sheet must be valued higher. This boost of the goodwill on the asset side is “plugged” by the increase of the carrying amount of the non-controlling interests, which results in boosting the total consolidated shareholders’ equity of the acquiring company.

However, a significant accounting problem may arise under the “full-goodwill method”, because the carrying value of non-controlling interests must be measured somehow. According to IFRS 3, under the “full-goodwill method”, the non-controlling interests in the subsidiary are to be measured at fair value. If the subsidiary’s shares are listed on an active market, then this measurement should be rather simple. In such cases, the fair value should be determined on the basis of the market prices for shares not acquired by the parent company. However, if the market prices are not available (e.g., when a subsidiary is not a public company or if its shares are listed on a market with poor liquidity), valuation techniques must be used (Alfredson, Leo, Picker, Loftus, Clark, & Wise, 2009). In contrast, under the “partial-goodwill method”, the non-controlling interests (and the related goodwill) are measured at their proportionate share in the acquiree’s identifiable net assets (which are less prone to valuation issues).

The choice of method to measure goodwill and non-controlling interests (the “partial-goodwill method” vs. the “full-goodwill method”) should be made separately for each business combination, rather than as an accounting policy. In making this election, management should carefully consider all factors, since the two methods may result in significantly different amounts of goodwill recognized (Mackenzie, Coetsee, Njikizana, Chamboko, Colyvas, & Hanekom, 2012). Thus, it is possible that a company applies different accounting approaches for measuring goodwill resulting from different business combinations.

Fair-Value Accounting Issues Related to the “Full-Goodwill Method”

The main accounting problem with the “full-goodwill method” lies in its reference to the fair value of goodwill attributable to non-controlling interests. While under the “partial-goodwill method” the non-controlling interests are calculated in a rather objective and non-manipulative way, under the “full-goodwill method”, they may be estimated (and overstated) with the use of the subjective valuation techniques.

According to IFRS 13 (Fair Value Measurement), to the extent possible, fair value should be based on an observable market price of an asset in question. In such cases, the estimate of fair value is considered to be objective, verifiable, and immune to manipulations. Thus, it satisfies the reliability principle. However, in those instances where such a market price is unavailable, the determination of fair value must rely on valuation techniques. According to IFRS 13, such valuation techniques should have a strong bias towards the use of observable rather than unobservable inputs, as these are considered more objective and more likely to be taken into consideration by market participants than unobservable inputs.

IFRS 13 provides a fair value input hierarchy to serve as a framework for classifying valuation inputs based on the extent to which they are based on observable data. According to this hierarchy, there are following three levels of inputs:

(1) Level 1 inputs (Directly observable): Quoted prices in active markets for identical assets or liabilities that the reporting entity has the ability to access at the measurement date;

(2) Level 2 inputs (Indirectly observable): Directly or indirectly observable prices in active markets for similar assets or liabilities, quoted prices for identical or similar items in markets that are not active, inputs other than quoted prices (e.g., interest rates, yield curves, credit risks, volatilities) or “market corroborated inputs”;

(3) Level 3 inputs (Unobservable): Inputs that are unobservable and that reflect management’s own assumptions about the assumptions market participants would make.

If Level 1 is not available, the estimate of fair value should be determined by adjusting observable prices of market transactions for similar assets or liabilities that occur at or near the measurement date. In the case of shares of companies it calls for techniques of relative (or comparative) valuation, which are usually based on accounting multiples (e.g., price-to-earnings, price-to-book-value, or price-to-sales). These approaches, although more immune to manipulations than techniques involving Level 3 inputs, are vulnerable to multiple subjective judgments (Damodaran, 1996; Pratt, 2001a). Among the relevant choices that must be made, here are:

(1) Types of valuation multiples which are used (e.g., based on earnings or book values of equity);

(2) Whether valuation is done on the basis of only historical accounting numbers (e.g., past earnings) or with the use of forecasted financial results;

(3) Whether valuation involves simple statistical tools (e.g., medians) or more advanced approaches (e.g., multiple regression of valuation multiples);

(4) Weights applied to results obtained from different valuation multiples;

(5) Number of companies serving as comparables (“peers”).

As a result of these necessary choices, the application of relative valuation techniques is heavily subjective and vulnerable to manipulations.

If neither Level 1 nor Level 2 is available, the estimate of fair value should be determined using other valuation techniques (Alfredson et al., 2009). For shares of companies, it typically means discounted cash flow valuation techniques, which are heavily exposed to multiple subjective assumptions (DePamphilis, 2010), including (among others):

(1) Assumptions about future macroeconomic and industrial conditions;

(2) Assumptions about future revenues, expenses, and net assets of the valued entity;

(3) Discount rates used in discounting forecasted cash flows.

Of all the valuation approaches applied in valuing businesses, the techniques involving significant load of Level 3 inputs are considered the most vulnerable to manipulations.

In certain situations, such as when using Level 1 inputs, use of a single valuation technique is sufficient. In other situations, management may need to use multiple valuation techniques. According to IFRS 13, when doing so, the results yielded by applying the various techniques are to be evaluated and appropriately weighted based on judgement as to the reasonableness of the range of results. The objective of the weighting is to determine the point within the range that is most representative of fair value. Clearly, such weighting constitutes another factor increasing the vulnerability of fair value estimation to manipulations.

There are two views of the consequences of fair value accounting of unverifiable assets (Paananen, 2008). One view is that discretion inherent in fair value estimates provides the management of companies with an opportunity to disclose private information to investors, lowering information asymmetry. The alternative view is that the discretion introduced provides an opportunity to manipulate the financial reporting, thereby making it harder for investors to predict future cash flows.

To sum up, when fair value estimates are based on observable prices of valued assets from active markets (Level 1), they are verifiable and relatively unsusceptible to opportunistic use. In contrast, fair values which are not based on prices from actively traded markets (Levels 2 and 3) are unverifiable and can increase the likelihood of opportunistic disclosure (Holthausen & Watts, 2001; Ramanna & Watts, 2007). Unfortunately, many business combinations are takeovers of private companies (often small and incomparable to other entities), in which case none market prices are observable. This creates room for manipulating fair value estimates, resulting in misreported goodwill and acquirer's total shareholder's equity. Furthermore, as will be illustrated later by a real-life example of takeover of one listed company by another public firm, acquirers sometimes use inputs other than Level 1 even for valuing shares which do have quoted market prices (without any justification for such practice offered in an acquirer's annual report). Thus, the "full-goodwill method", with its susceptibility to accounting manipulations, may sacrifice financial statement reliability, comparability, and transparency for alleged relevance, with the significant potential for the "creative accounting".

Impact of Misreported Goodwill on the Reliability of Financial Statements

According to Paragraph 27 of IAS 27, the non-controlling interests are to be identified and presented within consolidated equity, separately from the parent shareholder's equity. That is, they are regarded as an equity contributor to the group, rather than a liability of the group (Alfredson et al., 2009).

Given that the non-controlling interests are reported under IFRS as part of an acquirer's consolidated shareholders' equity, the "full-goodwill method" provides room for boosting and overstating that equity (when fair value of goodwill attributable to the non-controlling interests is deliberately overvalued). Prior research found that accounting goodwill is valued by investors as an asset (Barth & Clinch, 1996; Jennings, Robinson, Thompson, & Duvall, 1996; Vincent, 1997) and that investors react more strongly to financial statement disclosures about separately recognized intangibles than they do to goodwill (Pozza, 2007). The other studies found that investors tend to systematically overvalue firms with overstated goodwill and that they do not fully anticipate predictable goodwill impairments (Li & Sloan, 2014). This may motivate managers to boosting goodwill. Furthermore, subjectivity inherent in procedures for testing goodwill for impairment brings about long delays (up to several years) of goodwill impairment announcements (Hayn & Hughes, 2006). However, when the impairment of overstated goodwill is finally announced, it has a strong negative impact on stock prices, particularly for firms with relatively high proportion of goodwill to total assets (Li, Amel-Zadeh, & Meeks, 2010; Li, Shroff, Venkataraman, & Zhang, 2011). Thus, the subjectivity of estimates embedded in the "full-goodwill method" may cause significant stock mispricing and earnings surprises.

An overstatement of shareholders' equity possible under the "full-goodwill method" results also in an understatement of the acquirer's indebtedness ratios, which constitute inputs to many bankruptcy-prediction models (Caouette, Altman, Narayanan, & Nimmo, 2008). Thus, it not only distorts an equity valuation, but also erodes the usefulness of credit risk analysis tools. In leveraged takeovers, particularly when an acquirer buys significantly less than 100% of shares in target's shareholder's equity, this method (when abused) creates a possibility of significantly lowering the consolidated indebtedness, despite borrowing for acquiring the controlling interests (if only the non-controlling interests are valued high enough).

The problems with the reliability and transparency of consolidated financial statements when the "full-goodwill method" is applied are illustrated in the following section with a real-life example from the Polish stock market.

Real-Life Case-Study of the “Full-Goodwill Method”

Practical problems with the reliability and transparency of financial statements, when the “full-goodwill method” is applied in accounting for business combinations, will be illustrated by a real-life example of takeover of Formula Systems (1985) Ltd. by Asseco Group. Asseco Group is one of the 10 largest IT companies in Europe and is listed on the Warsaw Stock Exchange, while Formula Systems is the IT company headquartered in Israel and listed on NASDAQ.

Table 1 contains an extract from Note 9 to Consolidated Financial Statements of Asseco Group for the year ended December 31, 2011, referring to the acquisition of Formula Systems shares. Table 2, in turn, presents the computation of a goodwill arising from that business combination, resulting from an application of the “full-goodwill method” as disclosed by Asseco Group. The following essential conclusions may be inferred from these extracts:

(1) In November 2010, Asseco Group took control over Formula Systems by acquiring 49.19% share in its equity, which gives 50.66% of votes at the Shareholders General Meeting;

(2) The non-controlling interests in Formula Systems Ltd. have been valued at fair value (thus, the “full-goodwill method” has been applied);

(3) The purchase price paid for the controlling shares (49.19%) equalled 409.9 million PLN (139.1 million USD), while the non-controlling interests have been valued at 1,099.7 million PLN (373.2 million USD).

Table 1

Extract From Note 9 to Consolidated Financial Statements of Asseco Group for the Year Ended December 31, 2011

Extract from Note 9: Restatement of comparative data due to a change in the initial recognition of obtaining control over the Formula Systems Group

On 25 November 2010, Asseco Poland obtained control over Formula Systems (1985) Ltd. as a result of effective acquisition of a 50.66% voting interest and a 49.19% equity interest in Formula Systems (1985) Ltd. from Emblaze Ltd. Goodwill arising from the purchase of Formula Systems shares, as disclosed in the financial statements for the year ended 31 December 2010, was estimated on the basis of provisional values of identifiable assets, liabilities and contingent liabilities. Up till 31 December 2011, following the completion of the purchase price allocation process, the estimated goodwill arising from the acquisition of Formula Systems Group was changed. Concurrently, we decided that the non-controlling interest resulting from this transaction shall be carried at fair value.
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Note. Source: Asseco Poland (2012).

Although Asseco Group purchased less than 50% share in a target’s equity, this investment gave it over 50% of votes at the Shareholders General Meeting. Thus, there is no reason to claim that the criteria for control are not met. However, according to the information shown in Table 2, the non-controlling interests in Formula Systems (which in fact are majority interests, with their 50.81% share in a target’s equity) were recognized in the consolidated equity of Asseco Poland at 1,099.7 million PLN (373.2 million USD). This is the estimated fair value of slightly more than 50% share in the target’s equity (and only 1.6 percentage point more than the interest acquired by Asseco Group), which does not give the control over the target company. It seems, therefore, that these non-controlling interests should be worth rather less (and not more by 168%) than the controlling interests purchased by Asseco Group, because of the possible inclusion of a control premium in the per-share fair value of the controlling interest (Mackenzie et al., 2012).

Clearly, such strikingly high valuation of the fair value of non-controlling interests, as compared to the consideration paid for acquiring controlling shares, calls for an analytical scepticism and rigorous investigation of any disclosures relating to the valuation techniques and underlying assumptions applied by the acquirer (or its advisors) in this valuation. In particular, it is interesting whether Level 2 or Level 3 inputs were applied, and if yes, what were the assumptions taken.

Table 2

Goodwill Resulting From Takeover of Formula Systems Group Computed Under the “Full-Goodwill Method” by Asseco Group

Item of net assets	Fair value as at the acquisition date	
	USD millions	PLN millions
Total assets	450.7	1,328.1
Total liabilities	245.9	724.6
Total price (A)	139.1	409.9
Non-controlling interests at the date of obtaining control at fair value (B)	373.2	1,099.7
Net assets at the date of obtaining control (C)	204.8	603.5
Goodwill at the date of obtaining control (A + B – C)	307.5	906.1

Formula Systems is listed on NASDAQ. This fact immediately calls for valuing the non-controlling interests in its shareholder’s equity at the market price of its common stock on acquisition date (unless convincing arguments are found for claiming that its shares are not actively traded and thus their market price does not constitute a reliable proxy for fair value). Unfortunately, Asseco Group in its “Annual Report for 2011” has not provided any disclosures about the valuation methods and inputs (e.g., quoted prices, relative valuation, or discounted cash flows) which have been used in valuing the non-controlling interests in Formula Systems. However, as may be concluded from data provided below, for some unknown reasons, the fair value estimate was not based on the target’s stock prices as quoted on NASDAQ (without any explanation offered by Asseco Group on why it neglected the objective and easily available Level 1 inputs when doing that valuation). Thus, it seems to be a good illustration of how the “full-goodwill method”, although permitted by the IFRS, may significantly reduce the reliability, comparability, and transparency of the consolidated financial statements.

In order to evaluate the impact of such apparently high valuation of non-controlling interests in Formula Systems on Asseco Group’s total consolidated shareholder’s equity, the following analytical adjustments have been made to the numbers reported by Asseco Group:

(1) The fair value of the non-controlling interests, as valued and reported by Asseco Group, has been replaced by its market value (Level 1 input), consistent with the actual market price of Formula Systems’ stock on NASDAQ at acquisition date (i.e., November 25, 2010);

(2) The fair value of the non-controlling interests, as valued and reported by Asseco Group, has been replaced by the non-controlling interests’ proportionate share in Formula Systems’ net assets at acquisition date (consistent with the “partial-goodwill method”).

Tables 3 and 4 contain the respective computations of both alternative carrying amounts of non-controlling interests in shareholder’s equity of Formula Systems. As might be concluded from Table 3, the fair value estimate based on the observable and objective stock price quotations (113.4 million USD on acquisition date) is lower by as much as 69.6% from the alleged fair value (estimated with the use of undisclosed assumptions) as reported by Asseco Group (373.2 million USD). The carrying amount of these non-controlling interests as computed in accordance with the “partial-goodwill method” (see Table 4) is even lower and equals 104.1 million USD (less by 72.1% than the reported fair value).

Table 3

Carrying Amount of Non-controlling Interests in Formula Systems at Their Market Value (Level 1 Input)

Item for computation of carrying amount	Amount
Weighted-average number of Formula Systems shares outstanding at the end of 2010 (A)	13,282 thousands
Closing price of Formula Systems stock on NASDAQ at acquisition date (B)	16.80 USD
Non-controlling interest's share in shareholder's equity of Formula Systems (C)	50.81%
Carrying amount of non-controlling interests in Formula Systems valued at the market stock price (A × B × C)	113.4 USD millions

Table 4

Estimation of a Carrying Amount of Non-controlling Interests in Formula Systems at Their Share in Formula Systems' Net Assets (the "Partial-Goodwill Method")

Item for computation of carrying amount	Amount
Formula Systems' net assets at the date of obtaining control	204.8 USD millions
Non-controlling interest's share in shareholder's equity of Formula Systems	50.81%
Carrying amount of non-controlling interests in Formula Systems valued at their share in Formula Systems' net assets	104.1 USD millions

Table 5 offers a comparison of the reported amount of the non-controlling interests and related goodwill with its two alternative estimates. As may be seen, the market value of all the Formula Systems' shares not belonging to Asseco Group equalled 113.4 USD millions on acquisition date (according to their quotations on NASDAQ), as compared to 373.2 USD millions as valued and reported by Asseco Group. It means that according to Asseco Group (or its financial advisors), the stock market price of Formula Systems' shares was undervalued on acquisition date by as much as 229%. It is also worth noting that the per-share price paid by Asseco Group for the controlling interests exceeded the per-share stock market value of the non-controlling interests by about 26.9%, which reflects the control premium that seems to be reasonable and not to exceed the average premiums observed in other market transactions regarding controlling interests (Pratt, 2001b).

Table 5

Goodwill Resulting From Takeover of Formula Systems Group Computed in Accordance With Three Alternative Approaches to Valuing Non-controlling Interests

Amount in USD millions	Full-goodwill method		Partial-goodwill method
	Non-controlling interests at fair value (as reported by Asseco Group)	Non-controlling interests at market price of Formula Systems stock at acquisition date	Non-controlling interests at their share in Formula Systems' net assets
Total price (A)	139.1	139.1	139.1
Non-controlling interests at the date of obtaining control (B)	373.2	113.4	104.1
Net assets at the date of obtaining control (C)	204.8	204.8	204.8
Goodwill at the date of obtaining control (A + B - C)	307.5	47.7	38.4
Difference to reported goodwill and non-controlling interests in USD millions (PLN millions)		-259.8 (-765.6)	-269.1 (-792.9)

Table 6 compares the Asseco Group's total consolidated shareholder's equity (as at the end of 2010) under these three approaches to valuing non-controlling interests. As might be seen, under both alternative options, the consolidated shareholder's equity is lower by over 12% from its reported amount. Although this effect may not seem dramatic, it must be kept in mind that this is an estimated impact of a single business combination

(out of several takeovers finalized by Asseco Group in the course of the last couple of years). In case of serial acquirers (i.e., companies following a strategy of overtaking many other businesses), a managerial discretion embedded in valuing fair value of non-controlling interests under the “full-goodwill method” may bring about much more severe overstatement of the consolidated shareholders’ equity.

It is also worth noting that despite such lacking transparency of Asseco Group’s consolidated financial statements for 2011 (as regards the accounting for its takeover of Formula Systems and related fair value measurement of non-controlling interests), the auditor’s opinion to these statements (issued by Ernst & Young) lacks any qualification and any reference to the approach applied by Asseco Group in its accounting for that business combination. According to the extract presented in Table 7, in the auditor’s opinion, the audited consolidated financial statements are complete, in a sense that they present truly and fairly all information material for the assessment of the Asseco Group’s results and financial position.

Table 6

Impact of the “Full-Goodwill Method” of Accounting for Takeover of Formula Systems on Asseco Group’s Consolidated Shareholder’s Equity at the End of 2010

Amount in PLN millions	Full-goodwill method		Partial-goodwill method
	Data reported by Asseco Group	Non-controlling interests at market value	Non-controlling interests at their share in Formula Systems’ net assets
Amount of equity adjustment (according to Table 5)	-	-765.6	-792.9
Asseco’s consolidated total equity*	6,341.1	5,575.5	5,548.2
Percent difference to the reported number	-	-12.1%	-12.5%

Note. *: Including non-controlling interests in Formula Systems.

Table 7

Extract From the Independent Auditors’ Opinion (Issued by Ernst & Young) to Consolidated Financial Statements of the Asseco Group for the Year Ended December 31, 2011

Extract from the independent auditors’ opinion
In our opinion, the attached consolidated financial statements, in all material respects:
<ul style="list-style-type: none"> • Present truly and fairly all information material for the assessment of the results of the Group’s operations for the period from 1 January 2011 to 31 December 2011, as well as its financial position as at 31 December 2011; • Have been prepared in accordance with International Financial Reporting Standards as adopted by the EU; • Are in respect of the form and content, in accordance with legal regulations governing the preparation of financial statements.

Note. Source: Asseco Poland (2012).

Concluding Remarks

According to the empirical research (Jennings et al., 1996; Henning, Lewis, & Shaw, 2000), goodwill is considered by markets to be an asset, with its value capitalized in the market value of the firm. Thus, any overstatement of reported goodwill may bring about a mispricing (overvaluation) of a company’s stock. The “full-goodwill method” of accounting for business combinations allows valuing goodwill attributable to non-controlling interests at fair value. However, any fair value estimates which are not based on directly observable prices from liquid markets are prone to manipulations, due to heavy load of subjective judgments and unverifiable valuation assumptions. As shown by a real-life case study of Asseco Group, some companies use their own estimates of fair value of non-controlling interests even in cases when the market value of these

interests is easily available. Furthermore, these fair value estimates, even if suspiciously high (as compared to alternative measurements), are unsupported by any meaningful disclosures about the methods and assumptions taken by a company in valuing non-controlling interests in its subsidiaries. Thus, in the author's opinion, the "full-goodwill method" of accounting for business combinations sacrifices financial statement reliability, comparability, and transparency for alleged relevance, with resulting significant room for accounting manipulations.

The argumentation offered in this paper is supported by a real-life case study based on the financial statement disclosures of only one public company and relating to a single business combination. The author's intention was to attract the reader's attention to the potential problems related to the "full-goodwill method" and its potential for financial statement manipulations. However, the extent to which the issues illustrated in this paper are common and may be generalized remains unexplored. Thus, in the further research, the author intends to comprehensively examine the contents of consolidated financial reports of larger sets of companies.

References

- Alfredson, K., Leo, K., Picker, R., Loftus, J., Clark, K., & Wise, V. (2009). *Applying International Financial Reporting Standards*. Milton, Australia: John Wiley & Sons.
- Asseco Poland. (2012). Consolidated financial statements of the Asseco Group including opinion of independent certified auditors for the year ended 31 December 2011. Prepared in accordance with the International Financial Reporting Standards. Retrieved from http://inwestor.asseco.pl/en/reports/financial_reports/2011/
- Barth, M. E., & Clinch, G. (1996). International accounting differences and their relation to share prices: Evidence from U.K., Australian, and Canadian firms. *Contemporary Accounting Research*, 13(1), 135-170.
- Caouette, J. B., Altman, E. I., Narayanan, P., & Nimmo, R. W. J. (2008). *Managing credit risk: The great challenge for global financial markets*. Hoboken, NJ: John Wiley & Sons.
- Damodaran, A. (1996). *Investment valuation: Tools and techniques for determining the value of any asset*. Hoboken, NJ: John Wiley & Sons.
- DePamphilis, D. M. (2010). *Mergers, acquisitions, and other restructuring activities*. London: Elsevier.
- Fridson, M. S., & Alvarez, F. (2002). *Financial statement analysis: A practitioner's guide*. New York, NY: John Wiley & Sons.
- Giroux, G. (2006). *Earnings magic and the unbalance sheet: The search for financial reality*. Hoboken, NJ: John Wiley & Sons.
- Hayn, C., & Hughes, P. (2006). Leading indicators of goodwill impairment. *Journal of Accounting, Auditing and Finance*, 21(3), 223-265.
- 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.
- Holthausen, R., & Watts, R. L. (2001). The relevance of the value-relevance literature for financial accounting standard setting. *Journal of Accounting and Economics*, 31(1-3), 3-75.
- Jennings, R., Robinson, J., Thompson, R. B., & Duvall, L. (1996). The relation between accounting goodwill numbers and equity values. *Journal of Business Finance & Accounting*, 23(4), 513-533.
- Kieso, D. E., Weygandt, J. J., & Warfield, T. D. (2010). *Intermediate accounting*. Hoboken, NJ: John Wiley & Sons.
- Lepădatu, G. V., & Pîrnău, M. (2009). Transparency in financial statements (IAS/IFRS). *European Research Studies*, XII(1), 101-108.
- Li, K. K., & Sloan, R. G. (2014). *Has goodwill accounting gone bad?* Retrieved from <http://ssrn.com/abstract=1466271>
- Li, K., Amel-Zadeh, A., & Meeks, G. (2010). *The impairment of purchased goodwill: Effects on market value*. Retrieved from <http://ssrn.com/abstract=930979>
- Li, Z., Shroff, P. K., Venkataraman, R., & Zhang, X. (2011). Causes and consequences of goodwill impairment losses. *Review of Accounting Studies*, 16(4), 745-778.
- Mackenzie, B., Coetsee, D., Njikizana, T., Chamboko, R., Colyvas, B., & Hanekom, B. (2012). *2012 interpretation and application of International Financial Reporting Standards*. Hoboken, NJ: John Wiley & Sons.
- Paananen, M. (2008). *Fair value accounting for goodwill under IFRS: An exploratory study of the comparability in France, Germany, and the United Kingdom*. Retrieved from <http://ssrn.com/abstract=1275803>

- Pozza, L. (2007). Purchase price allocation disclosures: The information content of separately recognized intangible assets in the London Stock Exchange. Working Paper, Bocconi University.
- Pratt, S. P. (2001a). *The market approach to valuing businesses*. New York, NY: John Wiley & Sons.
- Pratt, S. P. (2001b). *Business valuation discounts and premiums*. New York, NY: John Wiley & Sons.
- Ramanna, K., & Watts, R. L. (2007). Evidence on the effects of unverifiable fair-value accounting. Working Paper No. 08-014, Harvard Business School.
- Robinson, T. R., Henry, E., Pirie, W. L., & Broihahn, M. A. (2012). *International financial statement analysis*. Hoboken, NJ: John Wiley & Sons.
- Schilit, H. (2002). *Financial shenanigans: How to detect accounting gimmicks & fraud in financial reports*. New York, NY: McGraw-Hill.
- Spalding, A. D. (2011). Mark-to-market and the widening gap between financial and tax accounting. *Global Journal of Business Research*, 5(1), 125-137.
- Stickney, C. P., Brown, P. R., & Wahlen, J. M. (2004). *Financial reporting and statement analysis: A strategic perspective*. Mason, Ohio: Thomson/South-Western.
- Vašek, L., & Filinger, M. (2013). Influence of internally generated intangible assets on financial statements prepared in accordance with IFRS. *European Financial and Accounting Journal*, 8(3-4), 10-23.
- Vincent, L. (1997). Equity valuation implications of purchase versus pooling accounting. *Journal of Financial Statement Analysis*, 2(4), 5-19.