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Accounting for business combinations: Do purchase price allocations matter?

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A B S T R A C T

This study investigates the informativeness of purchase price allocations (PPAs) that involve fair value estimation of acquired assets and liabilities after a business combination. Using a model capturing the amount of goodwill expected after the initial announcement of an acquisition, we examine how allocation of abnormal levels of purchase price to goodwill (Abnormal Goodwill) affects stock price reaction surrounding the first disclosure of the PPA in SEC filings, and the acquirer's future performance. From a sample of 308 economically significant U.S. business combinations completed between 2002 and 2011, we document the following results: (1) Abnormal Goodwill is negatively associated with cumulative abnormal returns surrounding the first disclosure of the PPA, (2) there is a stronger negative reaction to Abnormal Goodwill for acquisitions that were already negatively received by market participants when initially announced than for acquisitions that were initially received positively, (3) the frequency and magnitude of goodwill impairment during the three years following completion of the acquisition increases as Abnormal Goodwill increases, and (4) future performance decreases as Abnormal Goodwill increases. Overall, our findings indicate that Abnormal Goodwill is informative regarding the quality of acquisitions. This study contributes to the debate on the usefulness of PPA.

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1. Introduction

Financial reporting allows capital providers to assess the return potential of investment opportunities and to monitor managers' important decisions such as mergers and acquisitions. Recent proposals by the U.S. and international standard-setters resulted in a major change in business combination accounting treatment: the purchase price of the target entity must now be allocated to the fair values of identifiable tangible and intangible assets, such as trademarks, technology, customer relationships and order backlogs, in order to provide relevant information about acquisitions (SFAS 141 and IFRS 3).[1] The process for identifying and valuing acquired tangible and intangible assets, namely purchase price allocation (hereafter PPA), requires goodwill to be considered as the residual of the consideration paid. According to the FASB, PPA should "provide users with a better understanding of the resources acquired and improve their ability to assess future profitability and cash flows".[2] However, questions have been raised about the usefulness of the information provided under the joint FASB and IASB position relating to PPAs. The standard-setters are not completely supported by certain academics and users of financial information, who are concerned about the relevance of recognizing intangible assets separately from goodwill, and the quality of fair value measurement of intangible assets.[3] Reliance on subjective fair value estimates makes PPA prone to manipulation, which potentially reduces its informativeness for investors.

In this paper, we address the following question: is PPA useful for investors? To address this question, we examine: (1) whether market participants take into consideration (react to) the information content of PPAs disclosed by acquirers, particularly the level of goodwill resulting from the PPA, to revise their expectations about the risk, amount and timing of future cash flows; (2) whether the information content of PPAs, if any, is informative about the quality of acquisitions.

In order to isolate the effects of PPA on investors' capital allocation decisions, we examine market participants' reaction to an abnormal level of purchase price allocated to goodwill (Abnormal Goodwill). All else equal, the subjectivity involved in estimating intangibles' fair values coupled with management's incentives to manipulate PPA can lead to variations in the amount of purchase price that is allocated to goodwill, which is a "plug-in" number in PPA (Shalev et al., 2013). Abnormal Goodwill could also capture the quality of acquisitions, since goodwill mechanically subsumes any overpayment. The abnormal amount of recognized goodwill captures deviations from the expected purchased goodwill. We define Expected Goodwill as the level of purchase price allocated to goodwill that is consistent with the economic fundamentals of the acquisition and investors' expectations of synergies and overpayment at the time of announcement of the acquisition. Expected Goodwill is affected by four factors: (1) revaluation (fair value adjustments) of the target's tangible assets and identification and valuation of intangible assets not previously recognized by the target, (2) the target's going concern (internally generated) goodwill, reflecting its performance and growth opportunities as a stand-alone entity, (3) the expected synergies between the acquirer and the target resulting from the combination, and (4) the expected overpayment for the target firm (Henning et al., 2000; Johnson and Petrone, 1998; Zanoni, 2009).

We measure Abnormal Goodwill as the difference between observed goodwill and Expected Goodwill predicted from a model capturing factors (1) to (4) above upon announcement of the acquisition and sector characteristics (Kimbrough, 2007; Shalev, 2009; Shalev et al., 2013). Abnormal Goodwill is the amount of purchase price allocated to goodwill that differs from the Expected Goodwill, considering the underlying economics of the acquisition, i.e., fair value adjustments, the target's going concern goodwill, expected synergies between the acquirer and the target, and expectation of overpayment upon announcement of the acquisition. We test the association between Expected Goodwill, Abnormal Goodwill and cumulative abnormal returns surrounding the first disclosure of the PPA in acquirers' 10-Q or 10-K filings released after completion of the acquisition (Kimbrough,

[1] SFAS 141 is now included in the Accounting Standards Codification (ASC) paragraphs 805-10-50 and 805-30-50.

[2] http://www.fasb.org/summary/stsum141.shtml.

[3] See Garten (2001), Kanodia et al. (2004), Skinner (2008), and Penman (2009) on the usefulness for investors of requiring separate recognition of (non-goodwill) intangible assets. See also Ball (2006), Shalev (2009) and Shalev et al. (2013), who argue that PPAs are open to manipulation. We review their arguments in more detail in the literature review.