Merger valuation: Time to jettison EPS

Assessing an acquisition’s value by estimating its likely impact on earnings per share has always been flawed. Now it’s likely to be flat-out wrong.

Richard Dobbs, Billy Nand, and Werner Rehm

In any acquisition, it’s difficult to predict future cash flows and synergies. Managers, boards, and analysts in the United States and Europe have therefore generally tested the relative attractiveness of a transaction by measuring its positive or negative impact on earnings per share (EPS). Simplistic and flawed as this approach may be, executives could argue that it was valid as long as accounting rules supported it.

That should have changed for US executives two years ago, when companies using US generally accepted accounting principles (GAAP) stopped amortizing goodwill.¹ Under the new rules, nearly every acquisition shows a positive, or accretive, impact on EPS before the cost of restructuring—making the EPS test completely unreliable as an indicator of value created. Yet news releases and public comments from US executives and Wall Street analysts continue to discuss and assess acquisitions in terms of EPS accretion or dilution. In addition, remuneration committees continue to evaluate management teams on their EPS performance. For European executives, the rules on amortizing goodwill have only recently changed.²

¹ The US GAAP changes also removed the pooling accounting approach, which allowed companies to avoid goodwill entirely. See Neil W. Harper, Robert S. McNish, and Zane D. Williams, “Shed no tears for pooling’s demise,” McKinsey on Finance, Number 1, Summer 2001, pp. 17–20.
² The European Union switched to the International Financial Reporting Standards (IFRS) in January 2005. Now more than 60 countries require IFRS. An additional 7 countries (Bahrain, China, Kazakhstan, Romania, Russia, Ukraine, and the United Arab Emirates) require some domestic companies to use IFRS, and a further 24 allow all of them to use it. Australia’s AIFRS (Australian Equivalents to IFRS) resembles IFRS with respect to the amortization of goodwill.
With basically the same standard for the amortization of goodwill now established in so many countries, it’s time for companies to drop, once and for all, the flawed EPS accretion/dilution test as a measure of an acquisition’s value. At best, the test is inaccurate; at worst, it thoroughly misleads investors. A better proxy, if executives need a new rule of thumb, would be an acquisition’s impact on the acquirer’s economic profit—another imperfect measure but one that is better than EPS because it takes into account an acquisition’s full economic cost.

**A flawed test**

Goodwill is the amount paid for acquired companies above the fair value of their book assets. Under previous International Accounting Standards, it was placed on the acquiring company’s balance sheet and then amortized over the duration of its useful life or for 20 years, whichever was less. This amortization in effect penalized the company for the cost of the acquisition and could therefore restrain managers who might try to increase earnings through acquisitions that would destroy shareholder value.

Assessing the impact of acquisitions on EPS rather than on total net income corrects for the dilutive effect of acquisitions that involve the issuing of shares. When a company uses cash to complete acquisitions, its earnings are reduced by the loss of interest income on the cash used in the transaction or by the loss of the interest on the additional debt. When it issues additional shares to complete a transaction, EPS declines mathematically, since earnings are spread across a greater number of shares.

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3 Before the change, in 2001, the US GAAP had permitted up to 40 years of useful life for goodwill.
But the EPS accretion/dilution test doesn’t reflect the actual value created by an acquisition. Writing off goodwill over 20 years may penalize companies too much—particularly in industries with intangible assets such as brands, which can endure longer than 20 years. Or it may penalize companies too little—particularly in cash deals when the EPS calculation doesn’t charge for the acquisition’s full cost of capital. As a result, there is no correlation between the financial markets’ impression of the value created by a deal and its accretive or dilutive nature. In an analysis of 117 transactions larger than $3 billion by US companies from 1999 to 2000, we found no correlation between the capital markets’ reaction to a deal and the deal’s impact on the acquirer’s EPS (Exhibit 1).

The EPS test under new rules
Starting January 1, 2005, countries that had been members of the European Union in 2002 are requiring public companies to adopt a consistent accounting methodology: IFRS. As the US GAAP did earlier, IFRS has changed the rules for the treatment of goodwill. Under the new rules for both of these accounting standards, acquirers record it as an asset but don’t amortize its value over time. Instead, companies must test the value of goodwill at least annually. If the value has been impaired, they must write it down and take a charge against earnings. If it hasn’t been impaired, the goodwill is assumed to have an indefinite life span and isn’t amortized.

The new rules have no effect on the actual cash flow of the combined companies or on the value created by a deal. They do, however, have a significant impact on EPS accretion/dilution in acquisitions that create goodwill: because it isn’t amortized, most acquisitions will now result in EPS accretion. This further undermines the EPS accretion/dilution test as an indicator of the value in a deal. It also creates a new danger for boards that use EPS to measure the performance of executives: these boards could be encouraging them to undertake value-destroying deals that increase EPS as measured under the new accounting standards.

We illustrate this point with a sample set of goodwill-creating transactions by US companies in 1999 and 2000. On average, under the old accounting standards requiring the amortization of goodwill, the earnings dilution for these deals was 24 percent in the first fiscal year after the acquisition and 12 percent in the second. Only 2 of the 11 deals were accretive in the second year (Exhibit 2, part 1, on the next page).

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4 Most of the ten EU accession countries either permit or require filing in IFRS. Companies that already report in the US, Canadian, or Japanese GAAP can continue to do so until 2007.
6 The sample, including transactions valued at more than $5 billion, excluded the telecommunications, high-tech, and software companies that drove the market bubble of that period.
Under the new rules, the picture would be very different: 9 of the 11 deals would have been accretive during both the first and the second years (Exhibit 2, part 2). Across all of these deals, the average accretion would have been 13 percent in year two, as compared with a 12 percent dilution in the same year under the old accounting rules. The new standard has, in effect, completely undermined the traditional rule of thumb.

Why? In essence, under the new rules the impact on the acquirer’s EPS doesn’t reflect the full economic cost of the acquisition. Consider a hypothetical example (Exhibit 3). A company evaluating the acquisition of a business worth $400 million in the capital markets is willing to pay a 25 percent premium, or $500 million in cash. For simplicity’s sake, let’s assume that the deal will create no synergies and that the acquisition target has a net income of $30 million. The acquiring company decides to finance the deal by raising debt at a pretax interest rate of 6 percent. Obviously, this deal destroys value because the company is paying $500 million for an entity that is worth only $400 million (remember, no synergies). Even so, next year’s earnings—and therefore EPS—increase to 2.3, from 2.0, because earnings from the acquired company exceed the after-tax interest payments that are required for the new debt.

This proposed acquisition would have returns higher than the cost of the debt used to finance it but lower than the overall weighted average cost of

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**EXHIBIT 2**

**Nearly every deal is accretive under new accounting rules**

<table>
<thead>
<tr>
<th>Sample of 11 deals¹</th>
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<tbody>
<tr>
<td><strong>Old accounting rules</strong></td>
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<tr>
<td><strong>Average impact on earnings per share (EPS), %</strong></td>
</tr>
<tr>
<td>1st year after acquisition</td>
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<td>2nd year after acquisition</td>
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<td><strong>New accounting rules</strong></td>
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<td>2nd year after acquisition</td>
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¹Goodwill-creating transactions ≥$1 billion by US companies from Jan 1999 to Dec 2000.

Source: Analysts’ reports; Standard & Poor’s; Thomson; US Securities and Exchange Commission (SEC) filings; McKinsey analysis.
capital, which includes the required return for equity holders. Raising debt to finance the deal places a sizable burden on the company’s shareholders without compensating them for the additional risk. Only when the return on invested capital is greater than the company’s overall cost of capital is each investor appropriately compensated. In our example, earnings of $30 million on an investment of $500 million would bring a mere 6 percent return on invested capital. While this exceeds the after-tax cost of financing the debt at 3.9 percent,7 it is below the overall cost of capital.

If instead the acquiring company exchanged shares to pay for the business it acquired, it would need to issue 12.5 million new shares to provide the 25 percent acquisition premium to the target company’s shareholders. After the deal, the company would have 52.5 million shares outstanding and earnings of $110 million.8 The EPS of the new company would rise to 2.1, so the deal would again be accretive. Regardless of the actual value created, a deal will always be earnings accretive if the acquirer’s price-to-earnings ratio is greater than the target’s P/E ratio, including the acquisition premium.

7 The pretax cost of debt × (1 – tax rate) with a tax rate of 35 percent.
8 This example assumes that the capital markets don’t penalize the acquirer and that the exchange ratio can be set in relation to the preannouncement share price plus the 25 percent acquisition premium.
No substitute for fundamentals
Therefore, when boards, executives, and investors look at acquisitions, it is no longer possible for them to rely on the EPS accretion/dilution test as a proxy for value creation—if indeed they ever could. Remuneration committees in particular must be wary of using EPS targets to evaluate management. In many countries, the executives would have an incentive to pursue value-destroying deals to make the EPS targets. Instead, boards, shareholders, and executives must fully understand every transaction’s fundamentals, including a detailed perspective on how synergies will create value and an evaluation using a discounted-cash-flow analysis.

While there is no perfect metric to prove whether a deal creates value, one measure companies could explore in their dialogue with investors is a deal’s impact on economic profit, calculated with a charge for goodwill at the full cost of capital. This analysis is fairly well established. In fact, many companies already use economic profit for internal decision making. A dialogue about how long a deal will dilute economic profit forces managers to ask how long it will take the company to begin earning its cost of capital on the acquisition. As with any measure, this one can’t be applied unthinkingly: some deals create substantial value through the long-term growth of the business while diluting economic profit in the short term. Understanding the impact of an acquisition on the dilution or accretion of economic profit could, however, provide a good basis for communication and discussion.

Assessing the value of an acquisition by estimating its impact on EPS has always been questionable. Under recent changes in accounting standards, that approach has become misleading and risky. Companies, boards, and investors must take note.

*Economic profit = invested capital \times \left( \text{return on invested capital} - \text{weighted average cost of capital} \right) .


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