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Commentary
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Discount Rates in Disarray: Evidence on Flawed Goodwill Impairment Testing

Carlin and Finch, this issue, compare goodwill impairment discount rates used by a sample of large Australian firms with ‘independently’ generated discount rates. Their objective is to empirically determine whether managers opportunistically select goodwill discount rates subsequent to the 2005 introduction of International Financial Reporting Standards (IFRS) in Australia. This is a worthwhile objective given that IFRS introduced an impairment regime, and within this regime, discount rate selection plays a key role in goodwill valuation decisions. It is also timely to consider the goodwill valuation issue. Following the recent downturn in the economy, there is a high probability that many firms will be forced to write down impaired goodwill arising from boom period acquisitions. Hence, evidence of bias in rate selection is likely to be of major concern to investors, policymakers and corporate regulators. Carlin and Finch claim their findings provide evidence of such bias. In this commentary I review the validity of their claims.

The (unstated) theoretical argument adopted in this study is based on agency theory. It is assumed that self-interested managers, in the absence of effective monitoring mechanisms, have incentives to opportunistically select discount rates. Carlin and Finch suggest this opportunism may manifest itself in the selection of excessively low or high discount rates depending on differing incentives; for example, to inflate or dampen earnings or to ‘take “big baths”’ (note 16). Evidence of high deviation from an independently determined (or theoretically correct) discount rate would therefore provide evidence of opportunism. However, it is not clear why managers would have this preference, even in the presence of incentives to inflate or deflate earnings. Arguably, managers could more discretely manage other, less transparent valuation inputs such as cash flow projections or terminal valuation assumptions that are not required disclosures under AASB 136 Impairment of Assets.

There may also be alternative theoretical reasons for why discount rates may deviate from an independently determined rate. Consistent with signalling theory, some managers may prefer to signal the underlying value of their assets by selecting asset-specific discount rates that more accurately reflect
economic reality. Therefore, the applied discount rate may materially differ from an independently determined rate, not because managers are acting opportunistically but because managers have more information about the values of cash-generating units (CGU) than outsiders to the firm. It could also be argued that an observed wide dispersion in rates may simply reflect difficulties managers experienced in initially complying with IFRS. Indeed, many companies extensively relied on external audit firm guidance in the transition to IFRS in 2006.\(^1\) Thus, in the absence of a detailed analysis of incentives and managerial responses, it is not obvious why managers, on average, would be expected to manipulate discount rates.

As the validity of the independently determined discount rate is central to the study’s findings it is important to consider how these rates are determined and applied. Carlin and Finch select a sample of 105 firms from the Top 200 ASX-listed firms by market capitalisation as at 31 December 2006. As it is assumed a ‘whole of firm’ discount rate is comparable with an independently determined discount rate, only firms applying such a single rate are included in the sample, leading to the rejection of 95 firms for using multiple rates or other methods. Thus, the sample selection process limits the study to less than a quarter of listed firms reporting goodwill in 2006.\(^2\)

For the remaining sample of firms, the single discount rates are extracted from note disclosures and are compared to an ‘independently’ determined discount rate. This independently determined rate (in effect, the firm’s cost of equity capital) is estimated using the capital asset pricing model (CAPM) and the unlevered company Beta, a risk premium of 6% and a risk-free rate of 5.885% (measured in December 2006) as inputs into the model. Betas are sourced from AspectHuntley’s FinAnalysis in the first quarter of 2007. This estimation procedure is questionable for a number of reasons.

First, the assumption that the CAPM method is the appropriate method to use is not consistent with the applicable accounting standard, as indicated in the guidance provide in AASB 136 Impairment of Assets:

A17. As a starting point in making such an estimate, the entity might take into account the following rates:

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\(^1\) See Gallery, Cooper and Sweeting (2008).
\(^2\) There were 470 firms listed on the ASX that reported goodwill in the 2006 reporting year.
(a) the entity’s weighted average cost of capital determined using techniques such as the Capital Asset Pricing Model; (b) the entity’s incremental borrowing rate; and (c) other market borrowing rates.

A18. However, these rates must be adjusted:
(a) to reflect the way that the market would assess the specific risks associated with the asset’s estimated cash flows; and (b) to exclude risks that are not relevant to the asset’s estimated cash flows or for which the estimated cash flows have been adjusted. Consideration should be given to risks such as country risk, currency risk and price risk.

From the above extracts, it is clear that an entity’s weighted average cost of capital (and CAPM) is just one starting point for estimating an appropriate asset-specific discount rate. Although the CAPM approach may be defensible on theoretical grounds,3 for some firms the complexity and cost in estimating CAPM inputs could justify the use of an entity’s incremental borrowing rate or another market borrowing rate. In these circumstances, given the low cost of debt capital in 2006, there is a high probability that the cost of debt was lower than the cost of equity in that year. Hence, the selection of a borrowing rate may lead to a rate significantly lower than any independently determined, whole of firm rate based on CAPM.4 Unfortunately, companies are not required to, and rarely disclose which of the three starting point rates they use in determining their discount rates.

It is also relevant to note that, in accordance with AASB 136, Para A18, only ‘specific’ asset risks should be included in estimating relevant discount rates and these should include country, currency and price risk. While it is difficult to know how these risks affect rate determination, it is reasonable to expect that such risks lead to rates that deviate from independently determined discount rates that do not incorporate such risk adjustments. Ample evidence is provided in company note disclosures to suggest that managers do, in practice, adjust rates to reflect specific assets risks.

Second, sound estimates of the cost of capital are crucial for the evaluation of investments and for corporate valuation. Current state-of-the-art methodology for estimating the cost of equity capital avoids using the traditional CAPM approach due to its imprecision. Other methods or

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3 See Husmann and Schmidt (2008).
4 Husmann and Schmidt (2008) come to a similar conclusion in their comparative analysis of discount rates.
adjustments to the traditional CAPM model have become the norm in capital markets research (for example, the Fama/French three-factor model, or a variation to this model). A recent alternative approach uses a market-implied cost of equity capital for a particular firm, defined as the internal rate of return that equates the current stock price to the present value of the market’s expected future residual flows to common shareholders (see Botosan and Plumlee 2002; Easton 2004).

Even where in practice the simplistic CAPM model is used, adjustments are often made to reflect the term structure of interest rates and uncertainty about the risk premium. For example, Stulz (1999) argues increased globalisation has caused equity premia to decline in all markets. If firms use some of these alternative methods, or use a CAPM method with a risk premium lower or greater than 6%, their discount rates may deviate considerably from the independently determined rates.\(^5\) Thus, the discretion in rate determination permitted by AASB 136 and the diversity in CAPM/cost of capital estimation practices raises doubt about the validity of comparing standardised independently determined rates with whole-of-firm rates.

In recognition that their independently determined rate may be subject to estimation error, Carlin and Finch use an arbitrarily determined tolerance threshold of 150 bps. A whole-of-firm rate that falls outside this threshold is attributable to opportunism. The reported results (Table 3) show a very wide rate of dispersion with only 31 (30%) firms disclosing rates falling within the tolerance threshold and 74 (70%) firms disclosing rates that fall outside the threshold. Surprisingly, 53 (50%) of firms disclose rates that fall outside a wider 250 bps threshold. In their industry analysis (Table 4), half of the industries examined have more than 75% of firms with rates falling outside the 250 bps threshold. No supplementary analysis and little explanation is provided for such wide dispersion, but such an outcome could be expected if the model parameters used to generate the independently determined rates were estimated with considerable error. The prospect that the selection of goodwill discount rates may be due to non-opportunistic factors is further reinforced in the goodwill intensity analysis (Table 5). When the discount

\(^5\) Despite the authors’ reassurances in the paper, their other CAPM input measures are also questionable. The commercially sourced Beta values are not timely (the first quarter of 2007) and are modified (bounded at a maximum of 2 and a minimum of 0.5). Likewise, the risk-free rate proxy of 5.885% is the December 2006, 10-year Australian government bond rate rather than the more appropriate June 2006 rate of 5.79%. Also, using an Australian rate may overstate the rate applicable to foreign CGUs.
rate variance is stratified by goodwill intensity scores (goodwill/net profit before tax), contrary to expectation, firms with the higher intensity scores (that is, with the most to lose from impairment write-downs) do not tend to select discount rates that fall outside the tolerance threshold. Alternatively, goodwill intensity may interact with other relevant factors such as firm size, firm performance, goodwill age, industry categorisation, and so on, in influencing managers’ selection of discount rates. However, multivariate methods that could potentially capture the effects of such interactions are not employed in this study.

Given the major concerns I have identified above, it is difficult to accept the claim that managers are acting opportunistically and biasing their goodwill discount rates. Consequently, I am not convinced that the paper, with its limited sample and early IFRS study year offers sufficient evidence to support the conclusion that, in Australia, goodwill impairment testing is ‘flawed’ and goodwill ‘discount rates are in disarray’. While this research, through its informative insights into rate selection practices, provides a good starting point from which such conclusions may ultimately be substantiated, future research should consider a more rigorous analysis of how and why firms select discount rates. The information disclosed in the note disclosures of company financial statements offers a rich source of information in which to explore the complexities associated with discount rate selection and valuation decisions. I encourage future researchers to delve into these disclosures in their quest to better understand the nature and consequences of those decisions.

References