

# Accounting for Goodwill

Based on BFI Working Paper No. 2023-142, “Accounting for Goodwill,” by Stefan J. Huber, Rice University, and Charles G. McClure, University of Chicago

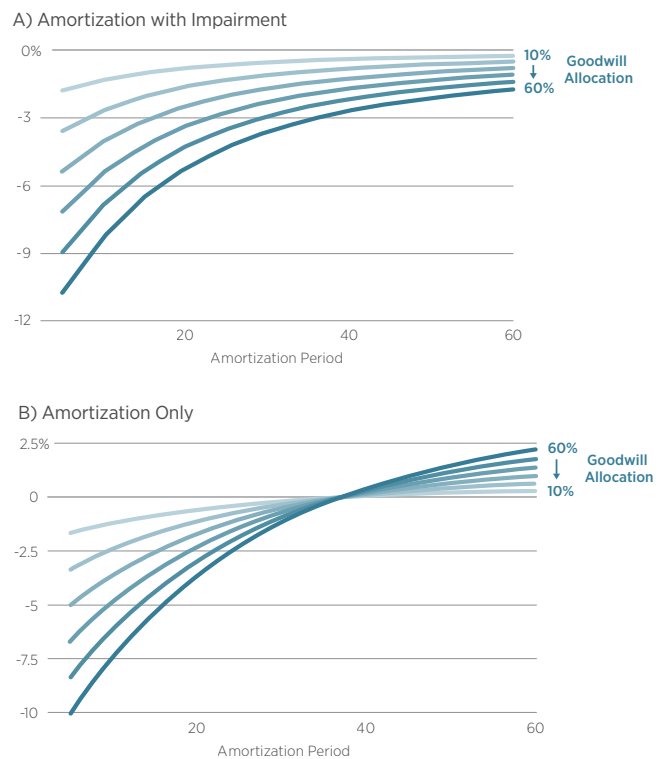
Amortizing goodwill reduces buyout premia by 6 percentage points and shrinks M&A volume by 4.29%, or \$68.6 billion per year; also, the fraction of private equity acquirers increases by 7.74 percentage points, shifting control over productive assets to the private and financial sector.

Imagine that you are planning to buy a business. You will likely start by tallying the value of all the assets in the target firm, things like machinery, inventory, land, buildings, intellectual property, brands, and so on. But the value of your purchase does not stop there. There is also the value that you will receive when your existing and acquiring businesses are joined, like reduced labor and capital costs from eliminating redundancies, for example. Those assets, collectively defined as goodwill, offer particular challenges for determining the value of the acquisition.

An accountant’s definition of goodwill is the amount of the purchase price over the amount of the fair market value of the target company’s assets, minus its liabilities. So, how do you determine that particular “overage” amount? The answer is important, as goodwill represents nearly half of the aggregate deal value of US corporate mergers and acquisitions (M&A). In terms of total corporate assets, goodwill accounts for almost 7 percent or nearly \$5 trillion in 2021. Likewise, when it comes to corporate M&A, a company’s goodwill can have significant implications for the combined company’s future earnings and, thus, may alter a firm’s willingness to pay.

In this new work, the authors investigate the real effects of goodwill accounting on the market for corporate control. However, as suggested above, this is a fraught exercise. Policymakers have debated how to measure goodwill in M&A markets for over half a century, in large part because how accounting treats

**Figure 1** • Pseudo-Valuations Under Goodwill Amortization



Note: This figure shows the change in a strategic bidder’s pseudo-valuation for a target if the bidder was subjected to amortization instead of impairment of goodwill. It shows how this difference in valuation changes with the amortization period and the fraction of the purchase price allocated to goodwill. Panel A presents the valuation changes when the accounting standard requires amortization with impairments. Panel B presents the valuation changes when the accounting standard requires only amortization. This figure shows that valuation differences increase as the proportion of deal value allocated to goodwill in an acquisition increases. Additionally, the sensitivity of pseudo-valuation differences to the amortization horizon intensifies with higher levels of recognized goodwill in the acquisition.

goodwill affects acquirers' private values of a target. In other words, we cannot observe the underlying private values of an acquirer; rather, we derive those values from the transaction price. The transaction price is determined by the interplay between the valuation of the buyer and the competition from other potential acquirers. How, then, do we disentangle this competition effect to recover the underlying values and quantify the role of goodwill accounting?

To address these and related questions, the authors develop a model of corporate takeovers where potential acquirers offer bids based on their private values and the competition from others. Broadly described, the authors' model has the following features: takeovers are modeled as auctions where the current market value serves as a reserve price (which is the minimum price that a seller would be willing to accept), bidders do not bid above their private values, and bidders do not permit another bidder to win if they could have bid more and maintained a positive surplus. With these rules in place, the authors can observe the competition effects within their modeled markets, thus allowing them to estimate the effect of goodwill accounting on bidders' private values and the takeover market.

A key feature of the authors' model (whose estimates are based on 861 all-cash deals from July 2001 to September 2022), is that bidders' valuations of the target are a function of the target's characteristics and the accounting treatment of goodwill. Bidders exhibit different preferences over future cash and earnings streams, leading to different sensitivities to the accounting for goodwill. We must pause here for helpful definitions. The authors' model features two classic types of bidders: strategic bidders, who care about the treatment of goodwill because their value is a weighted average of discounted cash flows and earnings; and financial bidders, often private equity investors, who are insensitive to goodwill as their value is based on the target firm's expected discounted cash flows (DCF). Finally, DCF is a valuation technique that uses expected future cash flows, in conjunction with a discount rate, to estimate the present fair value of an investment.

By estimating a model of merger activity that includes different types of bidders, the authors can quantify how merger markets change under hypothetical accounting regimes. For example, relative to the current accounting regime, the authors estimate regimes where firms must amortize goodwill over ten years, and goodwill is subject to annual impairment testing (to determine if an event(s) has lessened goodwill value), to find that:

- The average bid premium declines by 6 percentage points, and the number of deals failing increases by 10%.
- Together, these two effects reduce aggregate deal value by 4.29%. Overall, this reduction would equate to a reduction of \$68.6 billion in deal value for 2021.

Under this alternative accounting standard that amortizes goodwill (e.g., on an amortization schedule where firms "use up" goodwill over 10 years), not only do transaction prices and aggregate deal values change, but the type of winners do as well, influencing the ownership of a substantial portion of the economy:

- Adopting an accounting standard that amortizes goodwill increases the likelihood of a financial bidder winning the takeover from 29.6% to 37.4%.
- Combined with the changes in deal value, the increase in assets held by financial bidders to be 20.7%.
- Further, the authors' counterfactual analysis of hypothetical accounting changes for goodwill (moving from an impairment-only regime to an amortization regime for goodwill) would shift assets to financial bidders.

**Bottom line:** Accounting rules for intangible assets matter. Goodwill accounts for a significant amount of corporate value that plays an important role in M&A activity that, in effect, influences corporate control. For those charged with setting accounting standards, this work provides important insights into the real effect of accounting in the M&A market, as accounting rules have a real effect on winners and losers.

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## ABOUT OUR SCHOLAR



### Charles G. McClure

Assistant Professor of Accounting,  
Chicago Booth

