



How to value acquisitions has always been a crapshoot for corporate managements and investors alike. The big question: Can the expected benefits be realized? Because so many acquisitions fail to deliver on their promise, analyses that offer a better assessment are in great demand. Here's one, built on an economic framework, showing how to project cash returns. Goodwill also comes in for discussion, complete with a few ideas on improved rule-making.

"Reversion to the mean" is an important concept for stock valuation, reflecting the economic principle that above-average economic returns earned in particular businesses attract competitors seeking superior returns, with the consequence that returns get driven toward the average. This is a critical consideration for investment analysis of acquisitive firms; after all, many companies justify making acquisitions in an effort to delay downward "fade" of superior returns or to get inferior returns to "fade" up.

For investors analyzing companies of any type, the most important forecast typically is for returns on future investments. Help in making this forecast is provided by a track record of annual CFROIs[®] (cash-flow-return-on-investment). Incorporating adjustments for inflation and a variety of accounting distortions embedded in the company's historical financial statements, the CFROI metric better approximates economic returns than do accounting-based return-on-capital measures.

For established companies, the likely returns on incremental new operating investments are highly related to the CFROIs being achieved on the firm's existing operating assets. This result is due to new investments of substantial size being similar to existing businesses combined with management's skill not differing, on average, for new versus existing projects.

Investors analyzing acquisitive firms not only need to forecast future profitability for existing businesses and related reinvestment rates, i.e., organic growth, but also face the very difficult task of gauging the economic returns on future acquisitions. Analyzing an acquisitive firm becomes more manageable with the aid of a CFROI life cycle framework, which captures the principle of reversion to the mean, or fade.

Understanding Life Cycles

Track records of firms' CFROIs resemble segments of the competitive life cycle depicted in Figure 1. It shows a stylized firm, with start-up negative returns leading to successful innovation resulting in well-above-average CFROIs and high reinvestment rates, followed by eroding returns due to competitive forces.

For acquisitions, this life-cycle framework is useful to address important needs of both top managements and

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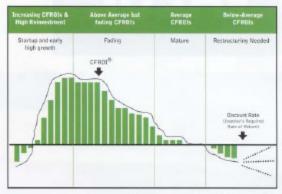
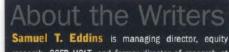


Figure 1.

investors. Take this question: Does it make strategic sense for company X to acquire company Y? Answering it involves understanding where X is in its life cycle and its key valuation issues. If company X has high CFROIs with a large positive spread over its cost of capital but also has limited reinvestment or growth opportunities, acquiring product line extensions at the right price could benefit X's shareholders. If industry overcapacity is the critical element keeping X's CFROIs from exceeding the cost of capital, acquisitions may be the best route to reducing inefficient industry capacity.

Achieving CFROIs above the cost of capital with very high growth via acquired businesses is sometimes achieved by "rolling up" local, fragmented firms and thereby gaining economies of scale. Finally, acquiring intellectual capital, typically represented by substantial past R&D outlays of the acquired firm, can be the needed piece for developing a new product line and/or in leveraging existing core competencies of the acquirer.



Samuel 1. Eddins is managing director, equity research, CSFB HOLT, and former director of research at HOLT Value Associates.

Bartley J. Madden is managing director, equity research, CSFB HOLT, and author of CFROY VALUATION; A Total System Approach to Valuing the Firm.

Credit Suisse First Boston (CSFB) recently acquired HOLT Value Associates, a firm known for its valuation expertise and global database. The combined organization, CSFB HOLT, is uniquely positioned to help money managers and security analysts improve investment insights.

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Basic DCF Valuation Model Asset Base Competitive Life Cycle generates **Net Cash Receipts** Warranted Value 1 + Discount Rate Figure 2.

Purchase Prices

To create value for the acquirer's shareholders, the purchase price needs to be low enough for the investment to generate returns that exceed the acquirer's cost of capital. This type of analysis requires the life cycle framework to be coupled with a discounted cash flow valuation model. Figure 2 illustrates the basic valuation elements of discounting a firm's future net cash receipts, which are the product of a pattern of CFROIs and reinvestment rates that fade over time to competitive averages.

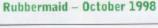
With a specified investors' discount rate, a company's stock price can be translated into implied expectations of future CFROIs and reinvestment rates, Judging the strategic merits of a prospective acquisition is helped by identifying the market's forecasts of future CFROIs not only for the acquirer and its industry peers but also for the target acquisition and its peers. Often, a high-tech acquisition of a small developmental company costs a large premium over book value, seemingly excessive compared with the acquired firm's current earnings. More information is gained by relating the premium paid to the market's forecast of future CFROIs and reinvestment rates for the acquired firm and its peers.

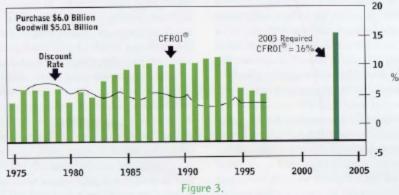
Most Acquisitions Involve Going Concerns

With the vast majority of acquisitions involving "going concerns," the CFROI framework is well suited to analyzing an acquisition price. Consider Newell's 1999 pooling acquisition of Rubbermaid for \$6 billion, a \$5 billion premium over the acquired firm's book assets.

What level of economic performance from the Rubbermaid business must Newell deliver to shareholders to achieve a "break-even" cost-of-capital return on the \$6 billion investment? Figure 3 displays the CFROI track record for Rubbermaid as it existed when the merger was announced in October 1998. It plots CFROIs and investor discount rates (costs of capital), both expressed in real (inflation-adjusted) terms. Note that Rubbermaid's CFROIs fell from 12% to 8% levels and stayed there through fiscal 1997. By our valuation, to earn its cost of capital on the \$6 billion acquisition investment, Newell would have to achieve approximately 16% CFROIs on the Rubbermaid business by 2003. This 16% CFROI was calculated using plausible assumptions for reinvestment rates and long-term fade rates. Rubbermaid's peak CFROI during the early 1990s was 12.5%

Investors analyzing this acquisition along the lines we just described (displayed in Figure 3) should have been skeptical of Newell's chances to earn a break-even return. In fact, shareholders in the combined Newell





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Rubbermaid underperformed the market for an extended period after the acquisition was completed.

Acquisition Accounting

Note that the above analysis of the Rubbermaid pooling acquisition would still apply if it were treated as a purchase acquisition. As long as the combined company's after-tax net cash receipts are unchanged, investors should be indifferent to pooling, which does not involve recording goodwill on the balance sheet, or purchase accounting, which does record goodwill.

From a perspective of holding management accountable for acquisition goodwill, FASB has now eliminated poolings but will allow firms to keep goodwill unamortized unless the management or auditor deems that goodwill has been impaired. Moreover, annual reports now will identify how goodwill is partitioned to each business segment.

By effectively removing goodwill amortization for most companies, FASB has "solved" a dilemma created by the diminishing use of GAAP-based earnings per share. Many investment analysts are increasingly using "cash EPS," which adds back goodwill amortization to reported EPS and thereby is excluded from their analyses. Analysts' disregard of goodwill amortization suggests the need for a more insightful perspective.

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Forecasting Future Net Cash Receipts

Our focus is on the perspective of investors and their primary need to forecast a company's future net cash receipts. Forecast accuracy argues for pooling, which maintains the recorded historical cost for assets, while purchase accounting distorts the historical cost of acquired plant. The exclusion of goodwill is consistent with measuring CFROIs on operating assets, which, as described earlier, link to future economic returns from organic growth. Any other future net cash receipts would come from future acquisitions.

As investors value existing businesses, putting goodwill into the asset base depresses the calculated return on those assets and biases downward the plausibly expected returns on new organic investment. The latest FASB rules for goodwill fall short of helping assess management's acquisition skill in trying to roughly gauge the contribution of future acquisitions to value.

The ideal acquisition disclosures to investors would include:

- A complete inventory of acquisitions for the past 15 years, together with their stated strategic objectives, purchase prices, and data necessary to conduct the analysis depicted in Figure 3 for each acquisition.
- (2) Post-acquisition performance data for the acquired businesses, so achieved returns on the purchase prices can be approximated.
- (3) Pooling treatment for historical cost accounting figures for acquired assets. The reason this is important: Forecasts of returns on new investments in operating assets are guided by gauging the achieved returns on the original, or historical, cost of existing assets.
- (4) Clearly articulated plans for future acquisition activity.

The fundamental issue is not an abstract argument about the effect of purchase versus pooling and how much goodwill appears on the balance sheet. Rather, the big issue is providing investors with the most useful information for meeting the above needs.

Investors know that they live in a world of less than ideal information. Incomplete disclosure merely increases the range of approximations (guesses) investors need to make and do make. How well does the latest FASB ruling help investors with the four specified needs?

The latest FASB rules for GOOdWill fall short of helping assess management's acquisition skill in trying to roughly gauge the contribution of future acquisitions to value.

Not Much Help from FASB

First, poorly executed acquisitions and outright disasters would lead to goodwill impairment and write-down. Does the FASB believe that the removal of goodwill emanating from these value-destroying acquisitions also should remove concerns about management's skill in executing future acquisitions? Our approach is to require both identification of past acquisitions and details concerning post-acquisition audits of performance.

Second, post-acquisition performance is fairly easy for investors to gauge when outright disasters are subsequently sold. Examples include AT&T's purchase of NCR and Quaker Oats' acquisition of Snapple; both were subsequently resold at a fraction of their original purchase prices. The economic impact of poor management skill is twofold: (1) economic losses directly tied to past deals, and (2) a decrement to today's stock price reflecting investors' concerns about possible future value-destroying deals.

Recognizing the latter, boards of directors often orchestrate early retirement for CEOs who presided over acquisition disasters. Interestingly, the guidepost of holding management accountable by creating goodwill on the balance sheet becomes even more dubious when top managements who did the bad deals are long gone.

Third, with purchase accounting, the historical cost (gross amount) of the acquired plant is not included in the balance sheet of the acquirer, and neither is the accumulated depreciation on that plant. Instead, the acquired plant is assigned a "fair value," which is incorporated into the acquirer's gross plant account. At the same time, accumulated depreciation for the acquired plant is set back to zero. So, at the time of the transaction, the acquirer's reported gross plant and net plant incorporate the fair value of the acquired plant. The conclusion is that purchase accounting distorts historical cost for the acquirer's gross plant, making it more difficult to measure economic rates of return and to forecast net cash receipts.

The amount by which the acquirer's gross plant account is distorted changes over time as the acquired "fair value" plant is taken off the books and new plant is recorded at cost. Not until the acquired plant is totally replaced is this distortion fully eliminated from the acquirer's financial statements. Pooling avoids this quantitative quagmire.

Finally, managements and boards of directors should be fully aware of investor skepticism about acquisitions in general — and especially large ones. Investors are keenly aware of the risks of management talking eloquently about strategy and synergy but delivering inefficiencies and wealth dissipation. FASB's new rule change does not address this uncertainty about the future. Investor support of management's acquisition plans for the future are, for the most part, based on how well management has executed in the past.