

## METHODS OF VALUATION FOR MERGERS AND ACQUISITIONS

This note addresses the methods used to value companies in a merger and acquisitions (M&A) setting. It provides a detailed description of the discounted cash flow (DCF) approach and reviews other methods of valuation, such as book value, liquidation value, replacement cost, market value, trading multiples of peer firms, and comparable transaction multiples.

### Discounted Cash Flow Method

#### Overview

The discounted cash flow approach in an M&A setting attempts to determine the value of the company (or ‘enterprise’) by computing the present value of cash flows over the life of the company.<sup>1</sup> Since a corporation is assumed to have infinite life, the analysis is broken into two parts: a forecast period and a terminal value. In the *forecast period*, explicit forecasts of free cash flow must be developed that incorporate the economic benefits and costs of the transaction. Ideally, the forecast period should equate with the interval in which the firm enjoys a competitive advantage (i.e., the circumstances where expected returns exceed required returns.) For most circumstances a forecast period of five or ten years is used.

The value of the company derived from free cash flows arising after the forecast period is captured by a *terminal value*. Terminal value is estimated in the last year of the forecast period and capitalizes the present value of all future cash flows beyond the forecast period. The terminal region cash flows are projected under a steady state assumption that the firm enjoys no opportunities for abnormal growth or that expected returns equal required returns in this interval. Once a schedule of free cash flows is developed for the enterprise, the Weighted Average Cost of Capital (WACC) is used to discount them to determine the present value, which equals the estimate of company or enterprise value.

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<sup>1</sup>This note focuses on valuing the company as a whole (i.e., the enterprise.) An estimate of equity value can be derived under this approach by subtracting interest bearing debt from enterprise value. An alternative method, not pursued here, values the equity using residual cash flows. Residual cash flows are computed net of interest payments and debt repayments plus debt issuances. Residual cash flows must be discounted at the cost of equity.

## Review of basics of DCF

Let's briefly review the construction of free cash flows, terminal value, and the WACC. It is important to realize that these fundamental concepts work equally well when valuing an investment project as they do in an M&A setting.

### Free cash flows

The free cash flows in an M&A analysis should be the operating cash flows attributable to the acquisition, before consideration of financing charges (i.e., pre-financing cash flows). Free cash flow equals the sum of after-tax earnings, plus depreciation and non-cash charges, less capital investment and less investment in working capital. From an enterprise valuation standpoint, "earnings" must be the earnings after taxes available to all providers of capital or "NOPAT" (net operating profits after taxes.)

The expression for free cash flow is:

Free Cash Flow =  $EBIT (1 - T) + \text{Depreciation} - \text{CAPEX} - \Delta\text{NWC}$ , where:

- EBIT is earnings before interest and taxes.
- T is the marginal cash (not average) tax rate, which should be inclusive of federal, state and local, and foreign jurisdictional taxes.
- Depreciation is noncash operating charges including depreciation, depletion, and amortization recognized for tax purposes.
- CAPEX is capital expenditures for fixed assets.
- $\Delta\text{NWC}$  is the change in net working capital.<sup>2</sup>

### Terminal value

A terminal value in the final year of the forecast period is added to reflect the present value of all cash flows occurring thereafter. Since it capitalizes the long-term growth prospects of the firm, terminal value is a large component of the value of a company, and therefore careful attention should be paid to it.

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<sup>2</sup> We assume in this formulation that working capital is increasing and therefore represents a negative cash flow. If net working capital is decreased, however, it enters as a positive component of free cash flow.

A standard estimator of the terminal value in period  $t$  is the constant growth valuation formula.

$$\text{Terminal Value}_t = \frac{\text{FCF}_t(1+g)}{(\text{WACC} - g)}, \text{ where:}$$

- FCF is the expected free cash flow to all providers of capital in period  $t$ .
- WACC is the weighted average cost of capital.
- $g$  is the expected constant growth rate in perpetuity per period.

Small changes in the growth rate will produce relatively large changes in terminal value, which reminds us that special care should be taken in estimating the growth rate, especially for high-growth companies. The growth rate cannot exceed WACC in perpetuity. Therefore, cash flows should be projected out to the point where the firm and its industry are in a long-term sustainable equilibrium. This is past the high-growth stage. Every company reaches a mature stage where long-term growth is moderate. At this point the constant growth rate formula becomes applicable and  $g$  is likely to take on a value close to the inflation rate plus or minus some small adjustment for other factors (e.g., real growth).

### **Discount rate**

The discount rate should reflect investors' opportunity cost on comparable investments. The WACC must reflect the capital costs that investors would demand in owning assets of similar business risk to the assets being valued. In addition, because the WACC also imbeds an assumption about the target mix of debt and equity, it also must incorporate the appropriate target weights of financing going-forward. Recall that the appropriate rate is a blend of the required rates of return on debt and equity, weighted by the proportion these capital sources make up of the firm's market value.

$$\text{WACC} = W_d k_d(1-T) + W_e k_e, \text{ where:}$$

- $k_d$  is the interest rate on new debt.
- $k_e$  is the cost of equity capital (see below).
- $W_d, W_e$  are target percentages of debt and equity (using market values of debt and equity.)<sup>3</sup>
- $T$  is the marginal tax rate.

The costs of debt and equity should be going-forward market rates of return. For debt securities, this is often the yield to maturity that would be demanded on new instruments of the

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<sup>3</sup> Debt for purposes of the WACC should include all permanent, interest bearing debt. If the market value of debt is not available, the book value of debt is often assumed as a reasonable proxy. The approximation is more accurate the shorter the maturity of the debt and the closer the correspondence between the coupon rate and required return on the debt.

same credit rating and maturity. The cost of equity can be obtained from the Capital Asset Pricing Model (CAPM).

$k_e = R_f + \beta (R_m - R_f)$ , where:

- $R_f$  is the expected return on risk-free securities over a time horizon consistent with the investment horizon. Generally use the ten-year government bond rate.
- $R_m - R_f$  is the historic risk premium for common stocks over government bonds (6.0 percent.)
- $\beta$  is beta, a measure of the systematic risk of a firm's common stock. The beta of common stock includes compensation for business and financial risk.

### **The M&A setting**

No doubt many of these concepts look familiar so that we must now consider how they are altered by the evaluation of a company in an M&A setting. First, we should recognize that there are two parties (sometimes more) in the transaction: an acquirer (buyer, or bidder) and a target firm (seller, or acquired.) Suppose a bidder is considering the potential purchase of a target firm and we are asked to assess whether the target would be a good investment. There are some important questions that arise in applying our fundamental concepts:

1. What are the potential sources of value from the combination? Does the acquirer have particular skills, or capabilities that can be used to enhance the value of the target firm? Does the target have critical technology, or other strengths that can bring value to the acquirer?

Potential sources of gain or cost savings achieved through the combination are called *synergies*. Baseline cash flow projections for the target firm may or may not include synergies, or cost savings gained from merging the operations of the target into those of the acquirer. If the base-case cash flows do not include any of the economic benefits an acquirer might bring to a target, they are referred to as *stand-alone* cash flows. Examining the value of a target on a stand-alone basis can be valuable for several reasons. First, it can provide a view of what the target firm is capable of achieving on its own. This may help establish a floor with respect to value for negotiating purposes. Second, construction of a stand-alone DCF valuation can be compared to the target's current market value. This can be useful in assessing whether the target is under or over valued in the market place. However, given the general efficiency of markets, it is unlikely that a target will be significantly over or under valued relative to the market. Hence, a stand-alone DCF valuation allows analysts to calibrate model assumptions to those of investors. By testing key assumptions relative to this important benchmark, analysts can gain confidence that the model provides a reasonable guide to investors' perception of the situation.

2. If one performs a stand-alone analysis of the target, what is the proper discount rate to use?

If the target is going to be run autonomously on a “stand-alone” basis, the most appropriate cost of capital is the WACC of the target firm. In this instance, the business risk investors bear as a result of this transaction is the risk of the target’s cash flows. The use of the target’s WACC also assumes that the target firm is financed with the optimal proportions of debt and equity and that these proportions will continue post-merger.

Less frequently, an acquirer may intend to increase or decrease the debt level of the target significantly after the merger—perhaps because it believes the target’s current financing mix is not optimal. The WACC still must reflect the business risk of the target. A proxy for this can be obtained from the unlevered beta of the target firm’s equity. However, in this circumstance, the target’s pre-merger unlevered beta must be relevered to reflect the acquirer’s intended post-merger capital structure.

#### Step 1: Unlever the beta

$\beta_u = \beta_L / [1 + (1-T) D/E]$ , where

- D/E is the target’s debt-equity ratio before acquisition.
- $\beta_u$  is the target’s unlevered beta:
- $\beta_L$  is the target’s pre-merger beta.

#### Step 2: Relever the beta

$\beta'_L = \beta_u [1 + (1-T)D/E^*]$ , where

- D/E\* is the intended debt-equity ratio after relevering.
- $\beta'_L$  is the post-merger target beta.

3. How does one incorporate the value of synergies in a DCF analysis?

Operating synergies are reflected in enterprise value by altering the stand-alone cash flows to incorporate the benefits and costs of the combination. Free cash flows that include the value an acquirer and target can achieve through combination and are referred to as *combined* or *merger* cash flows. If the acquirer plans to run the acquired company as a stand-alone entity, as in the case of Berkshire Hathaway purchasing a company unrelated to its existing holdings, there may be little difference between the stand-alone and merger cash flows. However, in many strategic acquisitions, such as the Vodafone-Mannesman, AOL-Time-Warner, there can be sizeable differences. Moreover, how the value of these synergies is split between the parties through the determination of the final bid price or premium paid is a major

issue for negotiation.<sup>4</sup> If the bidder pays a premium equal to the value of the synergies, all of the benefits will accrue to target shareholders and the merger will be a zero net present value investment for the shareholders of the acquirer.

4. What is the appropriate discount rate to value the combined cash flows?

The appropriate WACC still depends on the answers to our basic questions. What is the business risk of the cash flows going-forward? And, what is the appropriate financial structure for the post-merger firm? Often in these cases it is useful to consider two scenarios—one where the target and acquirer are in the same industry and one where they are in different industries.

If the target and acquirer are in the same industry, then it is likely that they have similar business risk. Since the business risk is similar and the acquirer's financial structure is optimal (often it is assumed to be optimal unless the managers of the acquired firm reveal otherwise), one can use the WACC of the acquirer to value the merger cash flows.

If the target and acquirer are in different industries, their business risks are not likely to be the same (e.g., suppose a pharmaceutical company buys an airline.) Because business risk is different, their assets, collateral, and debt paying abilities are also likely to differ. This suggests that an acquirer, in order to realize the maximum value from the transaction, will be motivated to *finance the target in a manner that is optimal for the target*. In these cases, the WACC should reflect the business risk and financing of the target going forward. There are several approaches to estimating an appropriate discount rate in this circumstance:

- a. One can use the WACC of the target firm under the assumption that its current financial structure is optimal and will continue post-merger.
- b. One can compute the WACCs of firms in the target's industry and average them (or rely on the median WACC). By using the betas and financial structures of firms engaged in this line of business, a reliable estimate of the business risk and optimal financing can be established going forward.
- c. One can also unlever the beta of firms in the target's industry, find the business risk, and then relever the unlevered beta to reflect the average debt-

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<sup>4</sup>The premium paid is usually measured as the (bid price for each share – market price for target shares before the merger)/market price for target shares before the merger.

equity ratio of the target industry. Note that this procedure usually produces similar results to averaging the WACCs of the target industry firms.<sup>5</sup>

The circumstances of each transaction will dictate which of these approaches is most reasonable. Of course, if the target's business risk somehow changes as a result of the merger, some adjustments must be made to all of these approaches on a judgment basis. The key concept is to find the WACC that best reflects the business and financial risks of the target's cash flows.

### Example of DCF Method

Suppose A-Company has learned that its competitor, B-Company, has retained an investment bank to auction the company and all of its assets. In considering how much to bid for B-Co., A-Co. starts with the projected cash flow statement drawn up by B-Co.'s investment bankers shown below. If a competitor or A-Co. were to acquire B-Co. and allow it to run as an autonomous, or stand-alone unit it would also make sense to use B-Co.'s weighted average cost of capital of 10.94% to value the company. The inputs to WACC will be discussed further later. On a stand-alone basis, the analysis suggests that B-Co.'s enterprise value is \$13.7 million.

#### Cash Flows of B-Company with No Synergies

(Assume that A-Company or other acquirer allows former B-Company to run as a stand-alone unit.)

Revenue Growth	3%	Terminal Value Growth	3%
COGS	55%	WACC	10.94%
SG&A	20%	Tax rate	39%
NWC	22%		

  

	<u>Year 0</u>	<u>Year 1</u>	<u>Year 2</u>	<u>Year 3</u>	<u>Year 4</u>	<u>Year 5</u>
Revenues (\$ thousands)	9,750	10,000	10,300	10,609	10,927	11,255
COGS		5,500	5,665	5,835	6,010	6,190
Gross Profit		<u>4,500</u>	<u>4,635</u>	<u>4,774</u>	<u>4,917</u>	<u>5,065</u>
SG&A		2,000	2,060	2,122	2,185	2,251
Depreciation		<u>1,000</u>	<u>1,000</u>	<u>1,000</u>	<u>1,000</u>	<u>1,000</u>
Operating Profit-pre-tax		1,500	1,575	1,652	1,732	1,814
Taxes		<u>585</u>	<u>614</u>	<u>644</u>	<u>675</u>	<u>707</u>
NOPAT		915	961	1,008	1,056	1,106
Add: Depreciation		1,000	1,000	1,000	1,000	1,000

<sup>5</sup>We generally prefer method b to method c. The inputs for estimating WACC correspond to observable market parameters that relate to how investors perceive the firm—e.g., bond rating (how much debt is used?), current yields to maturity, and beta. These inputs lead to estimates that are more consistent with investors' perceptions of the firm and risks.

Less: Capital Expenditures	(800)	(800)	(800)	(800)	(800)
Less: Increase in NWC	<u>(55)</u>	<u>(66)</u>	<u>(68)</u>	<u>(70)</u>	<u>(72)</u>
Free Cash Flow	1,060	1,095	1,140	1,186	1,234

**Valuation of B-Company with No Synergies**

	<u>Year 0</u>	<u>Year 1</u>	<u>Year 2</u>	<u>Year 3</u>	<u>Year 4</u>	<u>Year 5</u>
Free Cash Flow	1,060	1,095	1,140	1,186	1,234	
Terminal Value						<u>16,008</u>
Total Cash Flows	1,060	1,095	1,140	1,186	1,234	17,243

Enterprise Value = $PV_{10.94\%}(\text{FCF}) = 13,723$
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Now suppose A-Co. believes that it can make B-Co.’s operations more efficient and improve its marketing and distribution capabilities. We can incorporate these effects into the cash flow model, and thereby estimate a higher range of values that A-Co. can bid and still realize a positive net present value (NPV) for A-Co.’s shareholders. In the combined cash flow model of the two firms below, A+B-Co. has added two percentage points to revenue growth and subtracted one percentage point from both the COGS/Sales and SG&A/Sales ratios relative to the stand-alone model. We assume that all of the merger synergies will be realized within the first five years of combined operations and thus fall within the forecast period. Because A and B are in the same industry, it is assumed that the business risk of B-Co.’s post-merger operations are similar to A-Co.’s. Because the two entities have the same business risk and A-Co. is the purchaser and surviving entity, we can use A-Co.’s WACC of 10.62% in the valuation. Notice that the value with synergies, \$14.6 million, exceeds the value as a stand-alone entity by approximately one million dollars. In devising its bidding strategy, A-Co. would not want to offer \$14.6 million and concede all of the value of the synergies to B-Co. At this price, the NPV of the acquisition to A-Co. is zero. However, the existence of synergies allows A-Co. leeway to increase its bid above \$13.7 million and enhance its chances of winning the auction.

**Combined Cash Flows of A+B-Co. with Synergies**

(Assume that former B-Co. operations are merged with A-Co. and have the same business risk.)

Revenue Growth	5%	Terminal Value Growth	3%
COGS	54%	WACC	10.62%
SG&A	19%	Taxes	39%
NWC	22%		

<u>Year 0</u>	<u>Year 1</u>	<u>Year 2</u>	<u>Year 3</u>	<u>Year 4</u>	<u>Year 5</u>
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Revenues (\$thousands)	9,750	10,000	10,500	11,025	11,576	12,155
COGS		<u>5,400</u>	<u>5,670</u>	<u>5,954</u>	<u>6,251</u>	<u>6,564</u>
Gross Profit		4,600	4,830	5,072	5,325	5,591
SG&A		1,900	1,995	2,095	2,199	2,309
Depreciation		<u>1,050</u>	<u>1,050</u>	<u>1,050</u>	<u>1,050</u>	<u>1,050</u>
Operating Profit-pre-tax		1,650	1,785	1,927	2,076	2,232
Taxes		<u>644</u>	<u>696</u>	<u>751</u>	<u>809</u>	<u>870</u>
NOPAT		1,007	1,089	1,175	1,266	1,361
Add: Depreciation		1,050	1,050	1,050	1,050	1,050
Less: Capital Expenditures		(1,000)	(1,000)	(1,000)	(1,000)	(1,000)
Less: Increase in NWC		<u>(55)</u>	<u>(110)</u>	<u>(116)</u>	<u>(121)</u>	<u>(127)</u>
Free Cash Flow		1,002	1,029	1,110	1,195	1,284

**Valuation of A+B-Co. with Synergies**

	<u>Year 0</u>	<u>Year 1</u>	<u>Year 2</u>	<u>Year 3</u>	<u>Year 4</u>	<u>Year 5</u>
Free Cash Flow		1,002	1,029	1,110	1,195	1,284
Terminal Value						17,357
Total Cash Flows		1,002	1,029	1,110	1,195	18,641

Enterprise Value = $PV_{10.62\%}(\text{FCF}) = 14,618$
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The inputs to the target’s and acquirer’s WACCs are summarized below. Note that because A and B are in the same industry, their betas and bond ratings, while not exact, are similar. The use of either WACC would allow the bidder to offer more than \$13.7 million and move forward with the offer. Had the target been in a different industry than the acquirer, one is less likely to observe a similarity in WACCs between the target and acquirer. In this case, one is better advised to focus on “where the money is going, rather than where the money comes from” in determining the risk associated with the transaction. In other words, the analysts should focus on the target’s risk and financing in determining the appropriate discount rate.

	A-Co.	B-Co.
Bond Rating	A	BBB
Interest Rate on Bonds	7.20%	7.42%
Tax Rate	39%	39%
After-tax Cost of debt	4.39%	4.53%
Beta	1.05	1.20
Cost of equity -Ke	12.18%	13.08%
Debt % of Capital	20%	25%
Equity % of Capital	80%	75%

10 year Treasury Bond	5.88%	5.88%
Equity Risk Premium	6.00%	6.00%
WACC	10.62%	10.94%

### Other Valuation Methods

Although we have focused on the DCF method, other methods provide useful complementary information in assessing the value of a target. We briefly review some of the most popularly used techniques.

#### Book value

- May be appropriate for firms with no intangible assets, commodity-type assets valued at market, and stable operations.

*Some caveats:*

- This method depends on accounting practices that vary across firms.
- Ignores intangible assets like brand names, patents, technical know-how, managerial competence.
- Ignores price appreciation due, for instance, to inflation.
- Invites disputes about types of liabilities. For instance, are deferred taxes equity or debt?
- Book value method is backward looking. It ignores the positive or negative operating prospects of the firm.

#### Liquidation value

- The sale of assets at a point in time. May be appropriate for firms in financial distress, or more generally, for firms whose operating prospects are very cloudy. Requires the skills of a business mortician rather than an operating manager.

*Some caveats:*

- Difficult to get a consensus valuation. Liquidation values tend to be highly appraiser-specific.

- Key judgment: How finely one might break up the company: Group? Division? Product line? Region? Plant? Machines?
- Physical condition, not age, will affect values. There can be no substitute for an on-site assessment of a company's real assets.
- May ignore valuable intangible assets.

### **Replacement-cost value**

- In the 1970s and early 1980s, during the era of high inflation in the United States, the Securities and Exchange Commission required public corporations to estimate replacement values in their 10-K reports. This is no longer the case making this method less useful for U.S. firms, but still is useful for international firms where the requirement continues.
- Often cited to explain the merger wave of 1970s and early 1980s. Since stock market values tended to be less than replacement cost, buyers seemed to be realizing "bargain" prices. It's cheaper to buy than build." This seems unlikely to be an explanation for the merger boom of the 1990s.
- But comparisons of replacement costs and stock market values ignore the possible reasons for the disparity: overcapacity, high interest rates, oil shocks, inflation, etc.
- Replacement cost estimates not highly reliable, often drawn by simplistic rules of thumb. Estimators themselves (operating managers) frequently dismiss the estimates.

### **Stock-market value (stock price × shares outstanding)**

- Helpful if the stock is actively traded, followed by professional securities analysts, and if the market efficiently impounds all public information about the company and its industry.
- Rarely do merger negotiations settle at a price below the market price of the target. On average, mergers and tender offers command a 30-50% premium over the price one day before the merger announcement. Premiums have been observed to be as high as 100% in some instances. Often the price increase is attributed to a "control premium." The premium will depend on: i. the rarity of the assets sought after and to what extent there are close substitutes for the technology, expertise, or capability in question, ii. the distribution of financial resources between the bidder and target, iii. the egos of the CEOs involved (the hubris hypothesis), or iv. the possibility that the *ex ante* target price was unduly inflated by market rumors.

- Less helpful for less well-known companies with thinly or intermittently traded stock. Not available for privately-held companies.
- Ignores private information known only to insiders or acquirers who may see a special economic opportunity in the target company. Remember, the market can efficiently impound only *public* information.

### **Trading multiples of peer firms**

- Most frequently observed are price-earnings ratios and market value of equity to book value of equity ratios.
- If a multiple is used in place of the constant growth model for terminal value, the multiple must be based on cash flow, EBIT, or EBITDA (i.e., not Price-Earnings ratio). Only these multiples are consistent with the definition of free cash flow as pre-financing cash flows available to all capital.
- Requires a forecast of EBIT or earnings for the next year. Never use last year's EBIT or earnings; the market only capitalizes future performance.

#### *Some caveats:*

- Requires careful research to find other firms comparable to the target company.
- Depends on accounting practices. There are a number of acceptable ways to determine operating earnings.
- Assumes the same (but undefined) growth rate in perpetuity.
- Can ignore the critical differences between profits and cash flow: e.g., new capital expenditures and investment in net working capital, and depreciation.
- May not separate the investment and financing effects into discrete variables. Difficult to analyze the effect of financing changes.
- May ignore the time value of money.

### **Transaction multiples for comparable deals**

In an M&A setting, analysts will look to comparable transactions as an additional benchmark against which to assess the target firm. The chief difference between transaction multiples and peer multiples is that the former will reflect a “control premium,” typically 30 to 50 percent, that is not present in the ordinary trading multiples. If one is examining the price

paid for the target equity, transactions multiples might include the offer price per share  $\div$  target book value of equity per share, or offer price per share  $\div$  target earnings per share. If one is examining the total consideration paid in recent deals, one can use Enterprise Value $\div$ EBIT. The more similarly situated the target and the more recent the deal, the better the comparison will be. Ideally, there must be several similar deals in the last year or two from which to calculate median and average transaction multiples. If so, you can glean valuable information about how the market has valued assets of this type.

Analysts will also look at premiums for comparable transactions by comparing the offer price to the target's price before the merger announcement at selected dates, such as one or 30 days, before the announcement. A negotiator might point to premiums in previous deals for similarly situated sellers and demand that shareholders receive "what the market is paying." One must look closely, however, at the details of each transaction before agreeing with this premise. How much the target share price will move upon the announcement of a takeover will depend on what the market had anticipated before the announcement. If the share price of the target had been driven up in the days or weeks before the announcement on rumors that a deal was forthcoming, the control premium may appear low. To adjust for the "anticipation," one must examine the premium at some point before the market learns of (or begins to anticipate the announcement of) the deal. It could be also that the buyer and seller in previous deals are not in similar situations compared to the current deal. For example, some of the acquirers may have been financial buyers (leveraged buyout (LBO) or private equity firms) while others in the sample were strategic buyers (companies expanding in the same industry as the target.) Depending on the synergies involved, the premiums need not be the same for strategic and financial buyers.

### **Summary Comments**

The DCF method of valuation is superior for company valuation in an M&A setting.

- Not tied to historical accounting values. Is forward-looking.
- Focuses on cash flow, not profits. Reflects non-cash charges and investment inflows and outflows.
- Separates the investment and financing effects into discrete variables.
- Recognizes the time value of money.
- Allows private information or special insights to be incorporated explicitly.
- Allows expected operating strategy to be incorporated explicitly.
- Embodies the operating costs and benefits of intangible assets.

Virtually every number used in valuation is measured with error, either because of flawed methods to describe the past or because of uncertainty about the future. Therefore,

- No valuation is “right” in any absolute sense.
- It is appropriate to use several scenarios about the future, and even several valuation methods to bound the target’s value.

Adapt to diversity. It may be easier and more accurate to value the divisions or product lines of a target, than to value the whole company. Recognize that different valuation methods may be appropriate for different components.

Avoid analysis paralysis. Bound the value quickly, then if the target still looks attractive try some sensitivity analysis.

Beyond the initial buy/no buy decision, the purpose of most valuation analysis is to support negotiators. Knowing value boundaries and conducting sensitivity analysis enhances one’s flexibility to respond to new ideas that may appear at the negotiating table.