Class #17
"Issues in Mergers and Acquisitions"

Mergers & Acquisitions: The Issues

- Why take over another firm?
  - What are the gains to takeovers?
- Strategies for Valuing Private Firms
  - What to do when there is no observable market price?
- Enterprise Valuation
- Calculating Unlevered Betas … Why?
- A Review of the Latest in M&A Accounting

Why take over another firm?

- What are the gains to mergers/takeovers?
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Valuation Methods for Private Companies or Divisions

- Use comparable ratios for publicly-traded firms:
  - P/E, M/B, P/Sales, etc.
  - Ensure same industry, risk (capital structure, and asset risk)
- Use DCF or abnormal earnings valuation analysis
- Asset Valuation:
  - Book Value (Net Worth)
    - Problems?
  - Tangible Net Worth
  - Economic Net Worth (Adjusted Book Value)
    - Fair market value of net assets plus Goodwill
    - Where do you estimate Goodwill?
      - Could use abnormal earnings.

What is the cost of capital for a private company?

- Assume that a private company that you wish to value has 5 reasonably comparable publicly-traded competitors. However, each of these firms has a different capital structure which affects the equity beta.
- How would we calculate the equity cost of capital of the private firm?

Unlevering the beta of publicly-traded companies

- It can be shown that a firm's levered beta can be expressed as:
  - $Beta_{equity} = Beta_{assets}*[1+(1-t)*(D/E)]$
  - Equity risk increases in firm leverage
- This is useful because we can easily estimate the (levered) equity beta of publicly-traded firms and then find the (unlevered) asset beta:
  - $Beta_{assets} = Beta_{equity}/[1+(1-t)*(D/E)]$

Example of Estimating Equity Discount Rate for Private Firm

- Consider a private company (or division) with 5 publicly-traded comparable firms. But, the capital structure of the firms is very different and we need to estimate the equity cost of capital for the private company (or division).
  - Step 1) Calculate asset betas for public companies
  - Step 2) Determine asset beta for private company using average or median of industry asset betas.
  - Step 3) Re-lever the private firm's beta to get equity beta.

Company	*Beta*	*D/E*	*tax rate*	*Equity Beta/[1+(1-t)*D/E]*
#1	1.21	1	0.32	0.72
#2	1.54	0.8	0.37	1.02
#3	1.05	0.55	0.39	0.79
#4	0.92	0.48	0.27	0.68
#5	0.86	0	0.34	0.86

Example of Estimating Equity Discount Rate for Private Firm

- Now assume that the private firm has a D/E ratio of 1.5 and an effective tax rate of 26%. Therefore, the equity beta for the private firm is:

$$\begin{aligned} Beta_{equity} &= Beta_{assets} * (1+(1-t)*D/E) \\ &= 0.84 * (1+(1-0.26)*1.5) \\ &= \underline{1.77} \end{aligned}$$

- Here's the rub:
  - Would like to use market values in the D/E calculation, but you cannot observe this for the private company. Therefore, you must use the book value of equity as an approximation.

Overview of M&A Accounting

- Accounting Method depends on ownership stake.
  - Why do firms hold minority ownership stakes in other firms?
- <u>Minority Passive Ownership</u>: <20% Ownership
  - <u>Case #1:</u> Trading Securities –intent to sell within 1 year
    - Mark-to-market on the balance sheet
    - Unrealized gains (losses) are recognized as income each period (quarter or year)
  - <u>Case #2:</u> Available-for-Sale Securities –intent to hold for more than 1 year, but can sell whenever appropriate
    - Mark-to-market on balance sheet
    - Unrealized gain/loss <u>not</u> recorded as income, but goes directly to increase/decrease shareholders' equity
    - Examples of Intel and Cisco

Overview of M&A Accounting

- <u>Minority Active Ownership</u>: 20% to 50%Ownership
  - Investor can influence management
  - Use Equity Method of Accounting
- <u>The Equity Method:</u>
  - Basically, 1-line consolidation in income statement and balance sheet
  - Original investment recorded at cost (Balance Sheet Account = Investment in Affiliate)
    - Investment account increases for investor's proportionate share of investee's income and decreases when investor firm receives dividends.
    - Share of investee's income appears on investor's inc statement
    - Dividends paid by investee do not affect investor's income because dividends are a return of capital (increase cash, decrease investment).

Overview of M&A Accounting

Asset combinations: Occur when a company acquires the assets of one or more other firms, or when a new firm is formed to acquire the assets of two or more existing firms. Target firms cease to exist as operating entities and may be liquidated.

Stock combinations: Occur when one firm acquires more than 50% of the outstanding voting common stock of one or more target firms, or when a new firm is formed to acquire controlling interest in the outstanding voting common stock of two or more target firms.

Financial Reporting Methods for Mergers and Acquisitions

The past methods:

• The “Old” Purchase Method – Goodwill asset created and amortized over 40 years.

• Pooling of Interests Method - The pooling method was available when certain criteria were met. If the pooling criteria are not met, the purchase method would be used.

Why did most firms prefer pooling of interests in the past?

- It appears that managers used pooling-of-interests to increase future accounting income. How?
  - Is the market fixated on earnings?

- There is evidence that, on average, acquiring firms were willing to pay larger premiums for target firms if the acquisition could be accounted for as a pooling-of-interests?
  - Example of the Daimler Benz and Chrysler “merger”

The New Merger Accounting Rules

- New rule now in effect:
  - Statement 141 requires that all M&A be accounted for under a single method - The new purchase method (pooling-of-interests is no longer permitted). Purchase method must be used for M&A starting July 1, 2001.
  - Statement 142 Goodwill no longer has to be amortized to earnings, but instead be reviewed for impairment. This rule is retroactive! Amortization of Goodwill ceases for most companies on January 1, 2002.
  - Implications for comparison?

The New Financial Reporting Rules: Purchase Method

Under the new purchase method, the combined firm reports the previously recorded assets and liabilities of the target firm at FMV on acquisition date.

Any excess of the FMV of the target over the FMV of the net assets recorded on its balance sheet is reported as goodwill.

Financial Reporting Methods for Mergers and Acquisitions

- Business combinations accounted for by the purchase method are recorded at cost.
- In exchanges involving cash, the net assets are recorded in the amount of cash disbursed.
- In exchanges involving the issuance of securities, the market value of the securities is the basis for recording the acquisition.

Types of Purchase Business Combinations

A purchase method combination may be approached in one of two ways:

1) The acquiring firm may purchase the assets (asset acquisition) of the target firm. In this case, normally the target firm is liquidated and only one firm continues.

2) The acquiring firm may purchase more than 50% of the outstanding voting common stock of the target firm. In this case, the financial statements of the two firms are consolidated.

Where Next?

- Next Class: Employee Stock Options and Valuation
  – Course Reader: Section (I) “Stock Options and Valuation – skim pages 317-334
- Sample and Practice problems for Quiz #2 will be distributed next class
- Review session for Quiz #2
  – Tentatively scheduled for Wednesday, April 23.