Session 06 & 07

Valuation Techniques

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Course : Corporate Valuation (PGDBFS 203)

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Misconceptions About Valuation

Myth 1: A valuation is an objective search for "true" value

Truth 1.1: All valuations are biased. The only questions are "how much" and in which direction.
Truth 1.2: The direction and magnitude of the bias in your valuation is directly proportional to who pays you and how much you are paid.

Myth 2.: A good valuation provides a precise estimate of value

Truth 2.1: There are no precise valuations.
Truth 2.2: The payoff to valuation is greatest when valuation is least precise.

Myth 3: . The more quantitative a model, the better the valuation

Truth 3.1: One's understanding of a valuation model is inversely proportional to the number of inputs required for the model.
Truth 3.2: Simpler valuation models do much better than complex ones.

Introduction

- Asset based valuation
- Earnings based valuation
- Dividends based valuation
- Cashflow based valuation
- Sum of the parts valuation

Reference : Valuation : Measuring and Managing the Value of Companies, Tim Koller, Marc Goedhart and David Wessels : 06th Edition, Chapter 13

Net Asset Based Valuation

- Asset based valuation
- Earnings based valuation
- Dividends based valuation
- *Cashflow based valuation*
- *Sum of the parts valuation*

Relative Valuation

The value of any asset can be estimated by looking at how the market prices "similar" or "comparable" assets.

- Price to Earnings Multiple (PER)
- Price to Book Multiple (PBV)
- EV to EBITDA Multiple
- Price to Sales Multiple
- Price to Operating Cashflow

Price Earnings Ratio (PER)

$$\text{P/E ratio} = \frac{\text{Current market price per share}}{\text{Post-tax earnings per share}}$$

- The P/E ratio is widely recognized and used by investors
- Lower multiple Vs a higher multiple
- Historic Vs future PER
- Comparing the PER with industry peers
- EPS can be negative and the P/E ratio does not make economic sense
- Adjusting the EPS

Adjusting EPS

- Basic versus Diluted Earnings Per Share
- Adjusting for Differences in Accounting Methods
- Normalizing EPS for Business-Cycle Effects
- Adjusting EPS for Nonrecurring Items

Price to Book Value (PBV)

$$\text{P/B ratio} = \frac{\text{Price per Share}}{\text{Book Value per Share}}$$

Rationale for Use of (P/BV)

- Book value is generally positive even when EPS is negative.
- Book value per share is more stable than EPS
- Book value per share has been viewed as appropriate for valuing companies such as finance, investment, insurance, and banking institutions
- Book value has also been used in the valuation of companies that are not expected to continue as a going concern

Price to Book Value (PBV)

Possible Drawbacks of (P/BV)

- Other assets besides those recognized in accounting may be critical operating factors (Brand name, Goodwill, Human capital etc.)
- P/B can be misleading as a valuation indicator when significant differences exist among the level of assets used by the companies under examination
- Accounting effects on book value may compromise book value as a measure of shareholders' investment in the company

Price to Sales (P/S)

$$\text{Price/Sales Ratio} = \frac{\text{Price per Share}}{\text{Sales per Share}}$$

Rationale for Use of (P/Sales)

- Sales are generally less subject to distortion or manipulation than are other fundamentals such as EPS or book value
- Sales are positive even when EPS is negative
- Because sales are generally more stable than EPS
- P/S has been viewed as appropriate for valuing the stock of mature, cyclical, and zero-income companies.

Price to Sales (P/S)

Possible Drawbacks of (P/Sales)

- A business may show high growth in sales even when it is not operating profitably. To have value as a going concern, a business must ultimately generate earnings and cash
- P/S does not reflect differences in cost structures among different companies.
- Although relatively robust with respect to manipulation, revenue recognition practices offer the potential to distort P/S

Price to Operating Cashflow (P/Cash)

$$\text{Price/cash flow ratio} = \frac{\text{Price per Share}}{\text{Cash Flow per Share}}$$

Rationale for Use of (P/Cash)

- Cash flow is less subject to manipulation by management than earnings.
- Cash flow is generally more stable than earnings, price to cash flow is generally more stable than P/E.
- Using price to cash flow rather than P/E addresses the issue of differences in accounting conservatism between companies

Price to Operating Cashflow (P/Cash)

Possible Drawbacks of (P/Cash)

- When the EPS plus noncash charges approximation to cash flow from operations is used, items affecting actual cash flow from operations, such as noncash revenue and net changes in working capital, are ignored.

- Theory views free cash flow to equity (FCFE) rather than cash flow as the appropriate variable for valuation. We can use P/FCFE ratios but FCFE does have the possible drawback of being more volatile compared to cash flow, for many businesses. FCFE is also more frequently negative than cash flow.

EV to EBITDA Multiple

$$\text{EV/EBITDA} = \frac{\text{Enterprise Value}}{\text{EBITDA}}$$

Enterprise Value

Market Capitalization (MPS*Issued shares) + Interest Bearing Borrowings - Cash

Rationale for Use of (EV/EBITDA)

- EV/EBITDA may be more appropriate than P/E for comparing companies with different financial leverage (debt), because EBITDA is a pre-interest earnings figure
- EBITDA controls for differences in depreciation and amortization across businesses EV/EBITDA is frequently used in the valuation of capital-intensive businesses
- EBITDA is frequently positive when EPS is negative

EV to EBITDA Multiple

Possible Drawbacks of (EV/EBITDA)

- EBITDA will overestimate cash flow from operations if working capital is growing. EBITDA also ignores the effects of differences in revenue recognition policy on cash flow from operations

- Free cash flow to the firm (FCFF), which directly reflects the amount of required capital expenditures, has a stronger link to valuation theory than does EBITDA. Only if depreciation expenses match capital expenditures do we expect EBITDA to reflect differences in businesses' capital programs

Dividend Valuation Model (DVM)

$$P_0 = \frac{D_1}{K_e - g}$$

D1 : Expected dividend for next year
g : Growth rate
Ke : Discount rate

$$Dividend\ Yield = \frac{Annual\ Dividend}{Current\ Stock\ Price}$$

Problems with DVM

- They are highly sensitive to the assumptions

$$K_e - g$$

- If g exceeds Ke a nonsensical result occurs

Replace the short-term super-normal growth rate plus the lower rate after the super-normal period with a "g" which is some weighted average growth rate reflecting the return expected over the long run

- Problems of calculating an appropriate required rate of return on equity and growth rates


ANY
QUESTIONS
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