YALE
UNDERGRADUATE
DIVERSIFIED
INVESTMENTS

MEETING # 1

GENERAL & KEY TERMINOLOGY

SEPTEMBER 17 9 PM

GOALS OF MEETING # 1

1) What We're Doing?
2) Outline
3) Key Terminology

WHAT WE'RE DOING?

- Trying to provide a way for us to learn key information, understand valuation, and prepare for interviews.

- I am **NOT** an expert by any means - most of you probably know just as much about finance, but I am trying to provide a **structured way for us to learn**.

- It's a learning process for everyone in this room - we're all in this together!

OUTLINE

FALL

1. Key Terminology
2. Accounting Statements
3. Valuation Methodologies - Discounted Cash Flow
4. Valuation Methodologies - Precedent Transaction + Public Comparables
5. Valuation Example Run-through
6. YUDI Exam & Interview Prep

SPRING

1. Interview Prep
2. Interview Prep
3. Valuation Example #2
4. Establish Team & Industry Groups
5. Team Work
6. Team Presentations

DEBT & EQUITY

- means of financing a company
- **Debt**: money given and owed back plus interest
    - $500,000 loan at 5% - I owe the principle and the interest rate on the loan
- **Equity**: part ownership of a company - rights to earnings of the company
    - $500,000 investment for 20% of my company and 20% of the profits (net income)

DEBT & EQUITY

- Which is better/cheaper?
- **Debt is cheaper!**
  - interest payments on debt are tax deductible
  - Company pays less taxes, nets more from operations, and maintains ownership to earnings.
  - Nets more profit to shareholders
    - $100 in profits - $30 in corporate taxes and then tax on dividends for shareholders
    - $100 in profits ($100 in debt) = means corporate tax is $0 and only taxes is paid once on the dividend rather than twice

EQUITY VALUE

- also known as **Market Capitalization** (Market Cap)
- provides a measure of relative size
- value of company available to shareholders

Market Value of a Share X Basic Shares Outstanding = **Equity Value**

total # of common shares in the market (found in company 10-K)

EQUITY VALUE

Bob's Pasta Company (BPC)

$35 X 19,500,000 = **$682.5 MM**

EQUITY VALUE

- there is a more accurate way to calculate using the **Fully Diluted Shares Outstanding**

Market Value of a Share X Fully Diluted Shares Outstanding = **Equity Value**

Fully Diluted Shares Outstanding = Basic Shares Outstanding + “In the Money” options & warrants

EQUITY VALUE

Fully Diluted Shares Outstanding

Basic Shares Outstanding + "In the Money" options & warrants

- Basic shares outstanding and information on options & warrants can be found on a company's 10-K
- The # of additional shares from "In the Money" options has to be calculated.

EQUITY VALUE

“In the Money”
options & warrants

- Some companies offer stock options to employees as well as stipulations with debt holders that allow them to convert existing debt into equity.
- “In the money” means that the option or warrant’s STRIKE or CONVERSION PRICE is less than the market value.

EQUITY VALUE

Stacy's Stock Options

- Stacy has the stock option to buy 1000 shares of Bob's Pasta Company for $25 a share. Today, the value of the share is $35. This means Stacy's stock option is "In the Money"

EQUITY VALUE

David's Debt Warrant

- David has lent Bob's company $100 with the ability to convert this debt into equity at a certain price. After 2 years, David decides to convert the remaining $60 in debt to equity at a conversion price of $30, but the current market price of a share is $35.

EQUITY VALUE

- Actual TOTAL # of shares of a company is greater than the basic shares outstanding because people like Stacy & David are increasing the number of shares in the market
- Calculate the change to the # of shares through the Treasury Stock Method (options) or the If-Converted Method (warrants)

EQUITY VALUE

- **Treasury Stock Method**
  - assumes that Stacy & Bob exercise all of their “In the Money” options at a weighted average strike price
  - The company raises money from Stacy & Bob by issuing them shares. The company uses this money to repurchase existing shares.
  - The net difference in shares is **dilutive** because the strike price of the “In the Money” options are below the actual market value and the **company buys back less than it issues to Stacy & Bob.**

EQUITY VALUE

- **If Converted Method**
  - Debt holders convert debt to equity which eliminates the debt but dilutes total company shares
  - Company cannot repurchase shares because it is not receiving money but rather eliminating debt (more dilutive effect)
  - This eliminated debt increases profit or net income **but only less taxes because now the company is not making payments on debt** that are tax-deductible. More shares now have to share the profit in the form of dividends which also dilutes EPS

ENTERPRISE VALUE

- total enterprise value or firm value
- Sum of all ownership interests in the company and claims on its assets from debt and equity holders.

Equity Value + Total Debt + Preferred Stock + Non-Controlling Interest - Cash & Cash Equivalents

= **Enterprise Value**

ENTERPRISE VALUE (EV)

- Independent of capital structure (forms of funding & operation)
  - Increase in Debt = Cash on Balance Sheet
  - Increase Equity to pay Debt = decrease in Debt

- Similar companies would be expected to have consistent enterprise value multiples despite differences in capital structure
- Highly levered companies may trade at a discount, however - EV may decrease as equity value decreases

FINANCIAL DATA

- Sales
- Gross Profit
- EBITDA
- EBIT
- Net Income

SALES

- Total Revenue - 1st line item “top line” of the income statement
- Total dollar amount realized by a company through the sale of its products or services during a given time period
- Companies with greater sales volumes tend to benefit from scale, market share, purchasing power, and lower risk profile - **premium valuation relative to smaller companies**

GROSS PROFIT

- Sales (Total Revenue) minus Cost of Goods Sold (COGS)
- key indicator of profitability
- $100 in revenue, $60 in COGS, 40% Gross Profit

Gross Profit Margin: (Sales - COGS) / Sales

- % of sales remaining after subtracting COGS
- lower % signifies a higher cost per unit
- higher % signified a lower cost per unit

EBIT

- **Earnings BEFORE Interest & Taxes**
- Often the same as operating income, operating profits, or income from operations
- Independent of tax regime and different capital structures (i.e. because taxes & interest on debt are not included)

EBIT Margin: EBIT / Sales

- measures operating profitability - used to compare

EBITDA

- **Earnings BEFORE Interest Taxes, Depreciation & Amortization**
- take EBIT and add back depreciation & amortization from the cash flow statement
- Ignores capital structure & tax regimes so serves as a fair means of comparison among companies in similar sectors
- Proxy for operating cash flow because it excludes depreciation & amortization expenses vs. EBIT

EBITDA Margin (operating margin): EBITDA / Sales

- measures operating profitability - used to compare

Net Income

- **Earnings or "bottom line"** is the residual profit after all company expenses
- Earnings available to equity holders once company obligations have been satisfied
- Wall Street tends to view net income on a per share basis (EPS or earnings per share)

Net Income Margin: Net Income / Sales

- measures overall profitability as opposed to operating profitability
- affected by capital structure and tax regimes because includes interest payments & taxes - companies with similar operating margins can still have very different net income margins