

YALE UNDERGRADUATE DIVERSIFIED INVESTMENTS

MEETING # 1

GENERAL & KEY TERMINOLOGY

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 Shares Outstanding = Equity Value

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

EQUITY VALUE

Bob's Pasta Company (BPC)

\$35

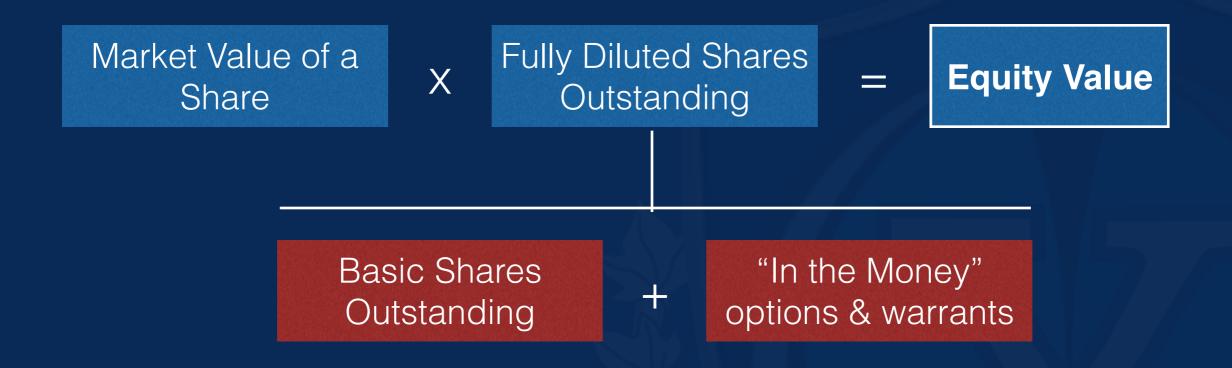
X

19,500,000

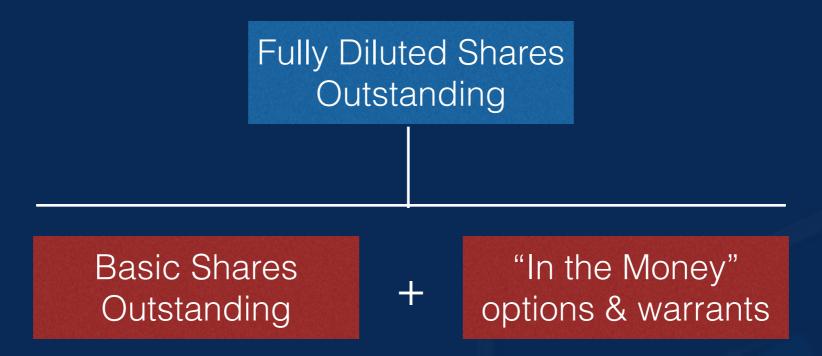
\$682.5 MM

EQUITY VALUE

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



<u>EQUITY VALUE</u>



- 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 taxdeductible. 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.



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

<u>EBIT</u>

- 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