



LIBOR

Little Investment Bankers of Rutgers

Technical Interview Prep
9:00 PM Tuesday February 6th, 2024

Resources & Preparation

- ▶ Read the Wall Street Oasis and Breaking Into Wall Street guides
 - ▶ Located in the Resources section of our website
- ▶ Write down key points for in-depth questions
 - ▶ This will help refine your answers
- ▶ Schedule mock interviews with upperclassmen
 - ▶ Practice, practice, practice



About Technical Questions

- ▶ Key part of the interview
 - ▶ Only one part of who receives an offer (academics, resume, behaviorals, etc)
 - ▶ Understand the concepts *and* can explain them concisely
 - ▶ Your explanation and thought process are just as important as your final answer

The goal is to “check the box”



Poor technicals *will* cost you an offer





Accounting

What are the 3 main financial statements?

▶ **Income Statement**

▶ Revenues – Expenses = Net Income

▶ **Cash Flow Statement**

▶ Net Income adjusted for non-cash expenses and non-expense cash flows => Change in Cash

▶ Operating, Investing and Financing Cash Flows

▶ **Balance Sheet**

▶ Assets = Liabilities + Shareholders' Equity

▶ Change in cash comes from the Cash Flow Statement



How do the 3 statements connect?

- ▶ Net Income from the bottom of the IS becomes the top line of the CFS
- ▶ Add back non-cash expenses from the IS on the CFS (e.g., depreciation)
- ▶ Reflect changes in operational BS line items
 - ▶ If an Asset goes up, cash flow goes down and if a Liability goes up, cash flow goes up
 - ▶ Reflect Purchases/Sales of Investments and PP&E in Cash Flows from Investing
 - ▶ Reflect Dividends, Debt issued or repurchased, and Shares issued or repurchased in Cash Flows from Financing
- ▶ Calculate the net change in cash at the bottom of the CFS, and then link this into cash at the top of the next period's BS
- ▶ Update the BS to reflect changes in Cash, Debt, Equity, Investments, PP&E, and anything else that came from the CFS
- ▶ Net Income from the IS flows into Retained Earnings on the BS



Accounting Portion of the Interview

▶ **Conceptual Questions**

- ▶ What's the difference between Accounts Receivable and Deferred Revenue?

▶ **Single-Step Scenarios**

- ▶ What happens on the 3 statements when Depreciation goes up by \$10?

▶ **Multi-Step Scenarios**

- ▶ Walk me through what happens when you buy inventory using debt, turn it into products, and then sell the products.

▶ **More Advanced Accounting**

- ▶ Walk me through what happens when you acquire a 70% stake in another company and pay \$70 for it.



Walk me through how a \$10 increase in depreciation impacts the 3 statements?

▶ **Income statement:**

- ▶ Depreciation is an expense so operating income (EBIT) declines by \$10
- ▶ Assuming a 40% tax rate, Net Income falls \$6

▶ **Cash Flow Statement**

- ▶ Net income decreased \$6 and depreciation increased \$10 so cash flow from operations increased \$4

▶ **Balance Sheet:**

- ▶ Cumulative depreciation increases \$10
- ▶ Net PP&E decreases \$10 but cash increased \$4 (CFS)
- ▶ \$6 reduction of Net Income caused Retained Earnings to decrease by \$6.
- ▶ **Assets decreased \$6 (PP&E -10 and Cash +4) and Shareholder's Equity decreased \$6.**

Here's What Happens on the Statements...		
Cash Changes By...		\$ 4
Shareholders' Equity Changes By...		\$ (6)
Net Income Changes By...		\$ (6)
Assets Side Changes By...		\$ (6)
Liabilities & Equity Side Changes By...		\$ (6)
Balance Sheet Still Balanced?		OK!



Possible Questions:

- ▶ What are the major line items on the 3 statements?
- ▶ What is the difference between LIFO and FIFO? How do they impact reported profitability?
- ▶ Walk me through what happens on the 3 statements when:
 - ▶ Accrued Expenses increases by \$10
 - ▶ A company issues \$100 in Dividends
 - ▶ There's an Asset Write-Down of \$100
 - ▶ A firm sells PP&E for \$120 and the PP&E is worth \$100 on the BS
- ▶ Multi-step:
 - ▶ Firm buys \$100 worth of new factories with debt. How are all 3 statements affected at the start of "Year 1?"
 - ▶ Assume the Debt is high yield, so no principal is paid off, the interest rate is 10%, and the factories Depreciate at a rate of 10% per year. What happens during Year 2?



Questions:

If you could only have two financial statements, which two would you choose? Why?

If you could only have one financial statement, which would you choose? Why?





Valuation

Valuation Overview

- ▶ **Firm Value (i.e., Enterprise Value):** The total value of an operating business regardless of its capital structure
 - ▶ Enterprise Value = Equity Value + Debt + Preferred Stock + Noncontrolling Interests – Cash
- ▶ **Equity Value (i.e., Market Value of Equity, Market Cap):** Value business to its equity holders after paying creditors and preferred claim holders
 - ▶ Equity Value = share price * # shares outstanding
- ▶ **Unlevered Free Cash Flow**
 - ▶ Unlevered Free Cash Flow = EBIT - Taxes + D&A - CapEx - Change in Working Capital
 - ▶ Measure of unlevered/debt-free because it does not include interest
- ▶ **EBITDA**
 - ▶ One of the most important single items someone will look at in evaluating a Company
 - ▶ EBITDA = Revenues – Expenses (excluding interest, taxes, depreciation, and amortization)



Valuation Overview (Continued)

- ▶ **Weighted Average Cost of Capital (WACC):** the average rate of return a company expects to compensate all its different investor
- ▶ **How do you calculate WACC?**
 - ▶ $WACC = (\% \text{ of Equity} * \text{Cost of Equity}) + (\% \text{ of Debt} * \text{Cost of Debt} * (1-t))$
- ▶ **How do you calculate the Cost of Equity?**
 - ▶ Use the Capital Asset Pricing Model (CAPM)
 - ▶ $\text{Cost of Equity} = \text{Risk Free Rate} + [\text{Beta} * (\text{Market Risk Premium})]$
- ▶ **How do you calculate the Cost of Debt?**
 - ▶ If the company has public debt, use its YTM
 - ▶ If not, consider your company against public debt comps



Questions:

Explain the intuition behind CAPM. What does beta represent?

What company would you expect to have a higher cost of equity: META or WMT? Why?



Walk me through a DCF

- ▶ Project unlevered free cash flow for a period of time (5 years)
- ▶ Project Terminal Value: 2 methods
 - ▶ Method 1 - Perpetuity Growth Method: choose a rate at which the firm can grow forever (i.e., inflation)
 - ▶ Method 2 - Terminal Multiple Method: multiply the last year's free cash flow by EBITDA multiple
- ▶ Find present value of free cash flows and terminal value by using a discount rate (aka WACC)
- ▶ Sum up present value of projected cash flows and present value of the terminal value to get DCF value
- ▶ *Note: because we use unlevered cash flows and WACC as our discount rate, the DCF value = Enterprise Value, not Equity Value*



Questions:

How do we project unlevered free cash flows?

What is sensitivity analysis? What things might be included in the analysis?



Ratios

- ▶ Used to put the performance or characteristics of a company in common terms
- ▶ Valuation ratios:
 - ▶ The most common is EV / EBITDA
 - ▶ Industries may have unique multiples (such as EV / page views for technology companies)
- ▶ Operating / efficiency ratios:
 - ▶ Indicate how well a company is being run



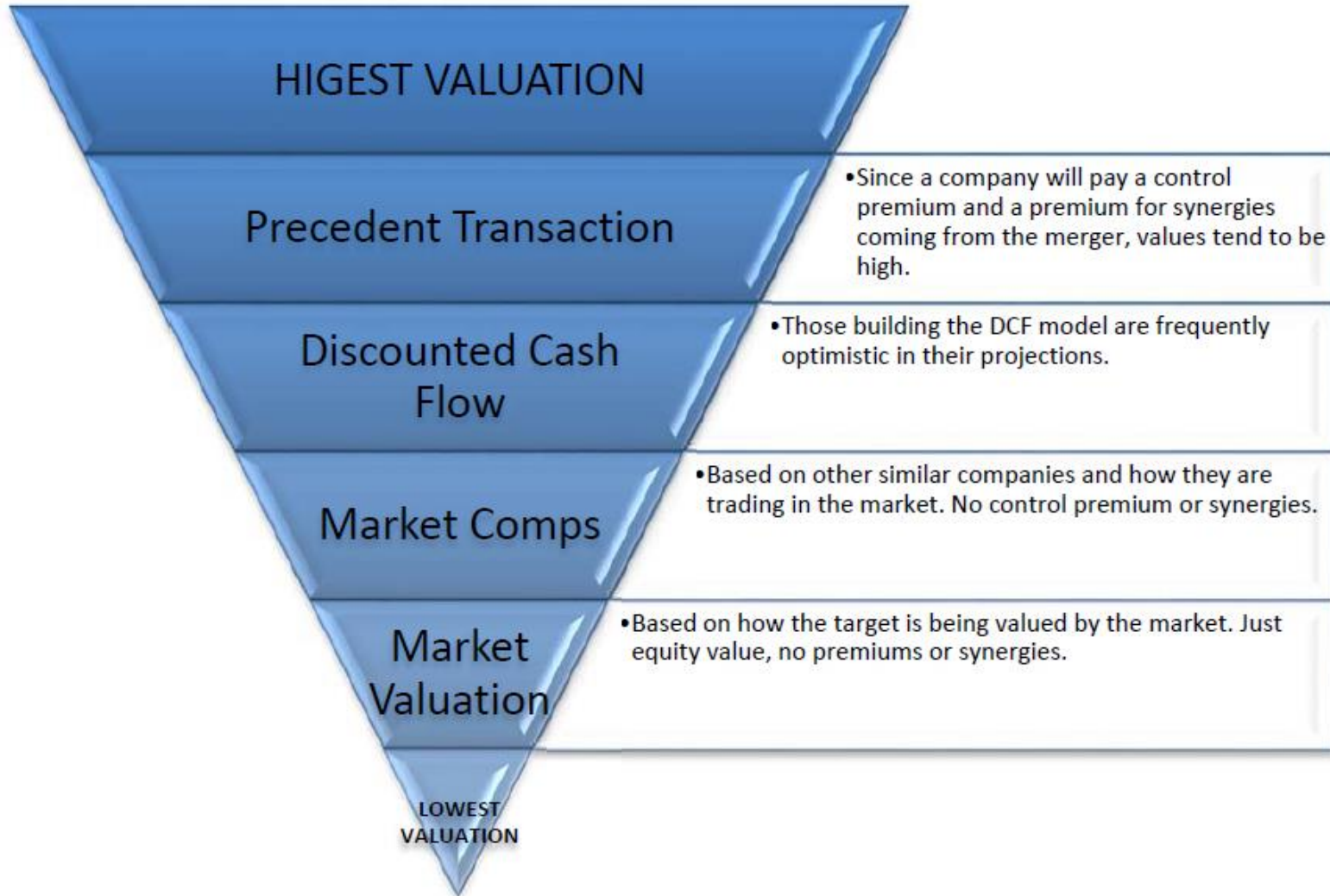
Question:

One of the following ratios is incorrect. Which one?

- ▶ Equity Value / Net Income
- ▶ EV / EBITDA
- ▶ EV / Subscribers
- ▶ Equity Value / EBITDA
- ▶ EV / EBIT



Which of the Valuation Methodologies will Result in the Highest Valuation?





Stock Pitch

Overview

- ▶ Good to have prepared even if you are not interviewing for a directly market-facing role
- ▶ Prepare a long, short, and possibly currency/ETF pitch (depending on desk/firm you are interviewing with)
 - ▶ Pick companies with an easy-to-understand business model



Researching the Company

- ▶ Gain a general understanding of the company (business model and recent news) as well as the industry
- ▶ Resources: Company IR/Reports, IBISWorld (industry), Yahoo Finance, WSJ, **Bloomberg Terminal**
- ▶ Qualitative Analysis
 - ▶ Porter's 5 Forces
 - ▶ SWOT Analysis
- ▶ Quantitative Analysis
 - ▶ 3-Statement Analysis
 - ▶ Comparable Companies and Precedent Transactions
 - ▶ DCF



Designing Your Investment Thesis

- ▶ **Recommendation:** buy, sell, or hold?
- ▶ **Reason:** 3 main points
 - ▶ These key points tell the story of why you want to buy, sell or hold
 - ▶ Each main point is supported by your research
 - ▶ Ex: “I recommend Illumina as a buy because the company is well-positioned to reap the benefits from a changing industry landscape, market dominance in DNA data sphere, and strong new sequencing technology”
- ▶ Ask yourself: “does this story make sense to me?”
 - ▶ If you aren’t convinced, your interviewer won’t be either
 - ▶ Play Devil’s Advocate to cross-check your own argument



Delivering the Pitch and Interview Tips

- ▶ Delivery Order
 - ▶ Stock Name
 - ▶ Current Price
 - ▶ Business Overview
 - ▶ Thesis, briefly explain each point
 - ▶ Catalysts (eg. earnings)
- ▶ Tips
 - ▶ Do not memorize a script
 - ▶ Only include a portion of what you know - save the rest for Q&A
 - ▶ Be well-informed
- ▶ Q&A
 - ▶ Use simple and clear answers - start with high-level information
 - ▶ If you are unsure, say so
- ▶ Common Questions
 - ▶ What are some risks?
 - ▶ How to deal with these risks?
 - ▶ Other Metrics (P/E, EV/EBITDA)
 - ▶ Upside/Downside



Sample Research Outline

Investment Thesis: NextEra Energy Corp. is a leading producer, distributor, and operator of clean energy, with approximately 45,900 megawatts of generating capacity and consolidated revenues of around \$16.2 billion. With a shift towards sustainable, renewable clean energy manifesting itself over the last few years, NextEra is poised to meet the growing market demand at an affordable price that is well below average. As NextEra gains share in this growth market as a result of its increasing wind and solar production and continuing investment into its natural gas pipelines and new contracted renewables, it is well positioned to become the dominant player in the industry.

Key Drivers:

1. **Secular Growth:** With May utilities outperforming the S&P with a gain of 5.17% relative to the S&P's gain of 2.57%, June saw a revision of IPP estimates higher and Diversified estimates lower. The industry is seeing gas utility price targets moving higher on a ~2% multiple expansion, beneficial for NEE in terms of increasing margins and EPS for their Florida Power & Light electric utilities business. Additionally, the stability of the Retail + Generation business in Florida (see figure 1) and major capital initiatives (see figure 2) totaling \$5-\$5.5 billion will contribute to its continued strong growth potential going forward.
2. **Strong Wind & Solar Business:** A largely underscored, yet expanding aspect of utilities is the renewable energy business, as it offers a cheaper alternative to natural gas and is largely untapped by competitors of NEE. With NEE's already existing dominance in the wind generation business and strong renewables origination of 413 megawatts of wind and 208 megawatts of solar PPAs in Q12017, the firm is well positioned in this strong growth industry. The company has also successfully commissioned the first 114 megawatts of its wind repowering program and expects to add a total of nearly 2,100 megawatts of solar across Florida over the next several years, showing continuous capital initiatives in renewables that are unmatched by competitors and underappreciated by investors.
3. **Recurring Revenues:** NEE enters into long-term contracts for both its natural gas and renewables businesses, allowing them to have a 20-year visibility that consistently drives value for customers and relies less on unpredictable cash flows. The firm also generates strong cash flow from renewables, which it reinvests into growing its Energy Resources and FPL businesses. NEE has above average 6-8% EPS growth through 2020e and has guided to an attractive 12-14% dividend/share growth, planning to continue to stay towards the top end of the range year-over-year.

In your prep documents you should also have:

- ▶ Valuation
- ▶ Catalysts
- ▶ Risks
- ▶ Competitor Analysis
- ▶ Few Strong Stats



Sample Final Pitch

“I recommend buying cyber security stock Proofpoint (PFPT) on the recent dip due to its sustainable secular growth, as well as several company specific catalysts.

First, taking a top-down approach, I’m convinced that cyber security is the next emerging sector to participate in. Global spending in this market is set to increase 8% in ‘15 to \$77bn, and reach about \$170bn in ‘20. Major corporations and governments across different regions are facing an evolutionary increase in cyber attacks – just think Target, JP Morgan, and Sony. Cyber attacks cost businesses \$400bn to \$500bn+ a year, making it more profitable to leverage a cyber security company’s services instead – yet only 1/3 of corporations even have a data breach response plan. The US government has spent \$100bn on cyber security over the past decade, and has \$14bn budgeted for 2016. Basically, the exponential growth in cyber crimes may cause the loss of intellectual and financial assets which businesses and governments are willing to pay to avoid. Threats are up y/y since ‘09 with a 66% CAGR. Additionally, the industry has been marked with much M&A and consolidation. Across the sector, each firm tends to offer something unique. For example, bellwether PANW focuses on malware and firewall protection while FEYE identifies threats and irregularities to handle big cyber attacks. Large players like Cisco are acquiring smaller players, and even the small players are teaming up to provide full suites to clients.

PFPT in particular has several company specific catalysts that make it an attractive investment. First of all, the two areas where PFPT focuses its services (cloud and mobile security) are the hottest growing. PFPT recently announced its TAP (Targeted Attack Protection) extension to mobile devices as well, which is already in high demand. PFPT has also been under the radar compared to larger players like FEYE and PANW because it is smaller and more specialized, but I believe it has more to gain. It also has a strong management team that is looking for long-term growth. As a small-cap with a focused product line, being a potential M&A target is the “cherry on top” for this investment.

As for why today is a good time to buy, the stock has been shot by recent macro trends and market volatility. However, CEO Gary Steele has stated himself that these macro events have not and will not impact demand, as this industry’s sales are actually insensitive to fluctuations in economic developments. I believe now is the time to buy the dip on general market volatility and investor concerns that the industry cannot consistently outperform.

Overall, the stock on average is predicted to provide ~30% upside, with the stock closing at \$59 today and consensus price targets averaging \$77. I believe we should buy today to capture that upside before investors catch on.”





Markets

Where do you think the stock market will be in 3/6/12 months?

- ▶ This is another question that can show your interest in the markets
- ▶ **No right or wrong answer**
- ▶ Have an opinion and well thought out reasoning for that opinion
 - ▶ Explain why you believe that your opinion is “correct”
 - ▶ The most important thing is to showcase your understanding of the market, market events, and using logical reasoning in your thought process
- ▶ Research
 - ▶ Important to have a longer-term understanding of recent market events
 - ▶ See what writers for major newspapers are predicting to help drive your explanation - see if you can find trends over multiple weeks/months
- ▶ Stick to your opinion.
 - ▶ Interviewers may challenge reasoning. Instead of changing your opinion, use your rationale to defend it against what the interviewer is saying - they want to see your thought process under pressure and debating skills



Critical Information

Figures

- ▶ S&P 500
- ▶ NASDAQ
- ▶ DJIA
- ▶ Stock Price of Firm
- ▶ Names of CEO & CFO
- ▶ Spot Price of Gold
- ▶ Spot Price of Oil
- ▶ Fed Funds Rate
- ▶ 2yr, 10yr, 20yr

Market Themes

- ▶ Inflation?
- ▶ Russia?
- ▶ Healthcare?
- ▶ Europe?
- ▶ Oil?
- ▶ Political drama?
- ▶ Cryptocurrency?



The Federal Reserve

- ▶ What happens when the Fed raises rates?
- ▶ When's the next meeting?
- ▶ Are they hawkish/dovish on markets? Why?
- ▶ When are they going to raise rates?
 - ▶ Fed Dot Plot
 - ▶ CME FedWatch



Question:

What is the Federal Funds rate?
What is the target range currently?



Other Common Markets Questions

- ▶ Do you think the stock market is efficient?
- ▶ What is going on in the economy today? Where is it going and why?
- ▶ How has the U.S. stock market performed YTD and what are the factors that are driving it higher or bringing it down? What are your thoughts on how 2015 pans out?
- ▶ What are the Dow Jones Industrial Average, NASDAQ, S&P 500? How do they work? Where are they at today?
- ▶ What do you think about gold as an asset class?
- ▶ Where do you see interest rates going and why?
- ▶ What is the relationship between interest rates and exchange rates?
- ▶ How would you invest \$1 million?
- ▶ Why are you passionate about the markets?



Questions?

