

Technicals Walkthrough

Fall 2023

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Emailing:

- If you get 100s emails a day to chat and have to work 9 am to midnight everyday, could you chat with every single person?
- Would you want to work with a person that you like and can mentor?
- NYU Stern Alums | Club Alumni
- Referrals
- Give multiple availabilities that don't conflict
- Emails should not be copy pastes
- Reaching out over messages be formal
- Unformat your emails | Arial
- Email signature
- Send calendar invites
- Structure your chats take the lead analysts are tired, you need to engage them
- If you have to ask yourself, "is this an inappropriate question," it probably is



Emailing:

Hi Said,

I hope you are doing well and keeping safe.

My name is Chirag and I am currently a junior at NYU studying Finance and Data Science with a minor in Studio Arts. I recently saw the posting for Partners Group Analyst Program and wanted to learn more about the firm and your experiences there. I understand that you have a busy schedule, but if you have some time, I would love to schedule a call over the next few weeks to hear more about your time at the firm, at NYU, and in PEG. My availabilities are (in MDT):

Today (4/27), Monday (5/2), Wednesday (5/4): 12:00 pm - 4:30 pm Thursday (4/28): 11:00 am - 8:00 pm Friday (4/29): 3:00 pm - 8:00 pm

Please let me know what time works best for you, and I would be more than happy to work around your schedule. I have also attached my resume for your reference. Thanks a lot for your time, and I look forward to hearing from you!

Warm regards,

Chirag

Chirag Gupta

B.S. in Finance and Data Science | <u>Studio Arts</u> Leonard N. Stern School Of Business New York University | Class of 2023 <u>chirag.gupta@stern.nyu.edu</u> | (917)-412-0379

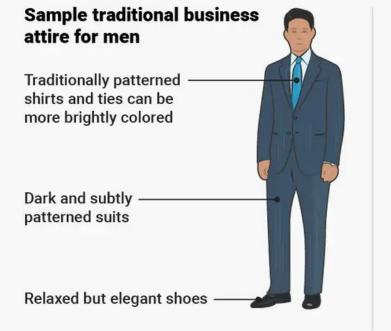


Networking:

| | 1 🔟 : × |
|---------|---|
| | Chirag <> Devon Monday, September 19 · 4:00 - 4:30pm |
| | Take meeting notes : Start a new document to capture notes |
| \odot | +1 (917) 412-0379 <> +1 (973) 494-4085 |
| 8 | 2 guests 2 yes |
| | Chirag Gupta Organizer Set your working location |
| | Devon Horton |
| = | Hi Devon, |
| | Thanks for taking the time to chat and I am looking forward to catching up! |
| | Warm regards, Chirag |
| Ļ | 15 minutes before |
| | Chirag Gupta |
| Going? | Yes Vo Maybe V |

- Good questions to ask:
 - How did you decide to do banking?
 - I have always been curious about how the buy and the sell side processes are different, can you tell me more about them?
 - As a junior, do you get a lot of autonomy on running client calls?
 - I have always valued mentorship and as a junior, I want to be in a group where people feel free to ask questions and seniors are receptive to growth
 - How can I learn more about the industry group you are in? Do you collaborate with other groups a lot?
 - What are some best practices in terms of managing deal team expectations?
 - How was moving to NY like for you? Any favorite places? What else do you like to do? My favorite recs are....
 - Give some context for why you are asking a particular question and follow up and reaffirm the point they mention
 - DO NOT ASK ABOUT EXITS & BONUSES









Interviewing:

- Go to info sessions
- Know your technicals
- Mock Interview | PEG is happy to help you with this
- Make sure your resume is on point
- Be concise and to the point | Take a deep breath
- Walk through your technical answers and ask for help | Always say this is how you think it could be done and would love to learn the correct way/ you're on the correct track
- Follow news Morning Brew | ExecSum | DD | FT | WSJ | NY Times | Robinhood Snacks
- Be humble Do not be cocky about your knowledge
- Prepare for your behaviorals really well
- Ask good questions
- Try to make your interview a conversation
- Read the room
- Research the company, interviewers, and groups



INDUSTRY SPECIFIC PREPARATION



INVESTMENT BANKING

Industry Breakdown

• Investment Banks

• Boutiques vs. Bulge Bracket





- Coverage Groups vs. Product Groups
 - Coverage Groups: Industry vertical specific: TMT, Healthcare, Industrials, Natural Resources
 - Product Groups: "Product" being a service an investment bank offers: M&A, ECM, DCM, LevFin, Restructuring
 - Be aware of how banks structure their groups, and be very aware of asking about the right group when networking!



M&A INVESTMENT BANKING

Standard Questions on Accounting and Valuation

- Independent Advisors (EVR, PJT, Moelis)
 - Demand Strong Conceptual Understanding
 - You will likely be asked to pick a business you are interested in. All technical questions will then be based off the 3 statements for that specific company
 - Need good understanding of specific line items for that business / industry. Eg: key line items and multiples will starkly differ for a consumer vs. a software company
 - Accretion Dilution Questions
 - Quick arithmetic calculation (based on financial concepts) to find whether an M&A deal will be accretive or dilutive. To make it complicated, firms might ask you to back-solve into synergies, or a specific tax rate that will change a deal from accretive to dilutive
 - Bulge Brackets (JPM, MS)
 - Bulge brackets have more run-of-the-mill technical questions that will mostly span accounting, DCFs, and enterprise value. The one caveat with BBs is that they expect you to be more up-to-date on the markets and macro concepts (eg. yield curves)
 - Both BB's and EB's will stress on your resume. In my personal experience, most technical questions are tailored to past internship experience



Restructuring Investment Banking

Context and Recruiting

• What is RX?

- Product group in the boutique investment bank responsible for advising stressed, distressed, and bankrupt companies as well as creditors (e.g. distressed debt hedge funds, distress-for-control private equity funds)
- Most of the time refers to the reorganization of a company; but can also include governments (from the municipal level to an entire country)
- One of the most niche and misunderstood products in IB due to limited information on what it is lack of people/alumni working in the field
- Rise in popularity over the past few years can be attributed to the fact that now Rx groups are some of the most sought after jobs from students at top targets due to exit opportunities/historical placements from Rx groups, more technical experience (complexity of deals; combination of law, psychology, finance, game theory, strategy that goes into each transaction), much smaller groups, and prestige
- Dealing with stakeholders who all want different things need to move fast
- The good news is that NYU sends kids to top RX groups every year so you have a great shot if you're interested!



Restructuring Investment Banking

Key Things to Know

Top Players





LAZARD MOELIS & COMPANY

Things to know:

- 1. Causes of financial distress
 - a. Structural market reasons
 - b. Cyclical industry/broader macro
 - c. Idiosyncratic business/liquidity
- 2. Signs of financial distress
- 3. Bond/Waterfall math (in some cases structural subordination, advanced waterfalls)
- 4. Solutions for debtor/creditor in distress (pros and cons and be able to have a thorough discussion about each)
- 5. Role of the investment banker
- 6. All regular IB techs!

*RX runs on an earlier timeline and tends to be more competitive due to the limited number of spots, highly technical nature of the process, and demand from top students at Wharton/Harvard/NYU etc.



PRIVATE EQUITY / SECONDARIES

Industry Breakdown

• Private Equity

- Funds are differentiated by size (Megafund, Large Cap, Middle Market), geography, industry vertical, and strategy
 - Some firms have analyst programs, some only hire associates after two years of banking/consulting
 - MF: Blackstone, KKR, Ares, Vista Equity Partners, SilverLake, Bain Capital
 - Large Cap / MM: Apax, Audax, LLR, GTCR
 - Most competitive processes network well and show genuine passion for the space
- Secondaries
 - Funds are also differentiated by size and strategy vanilla LP, GP-led, opportunistic, asset-class focus
 - Funds with analyst programs: Blackstone Strategic Partners, Ares Landmark Partners, Lexington Partners, Ardian, Macquarie, CVC Glendower, Harbourvest



PRIVATE EQUITY / SECONDARIES

Banking Basics + LBOs, Business Intuition, Investing Acumen

- Private Equity
 - Case study-esque questions:
 - eg. Compare family owned coffee bean farm to coffee chain (line items on IS, which would you rather LBO and why)
 - Need good business intuition i.e. understanding of operating leverage, supply and demand, relationship with customers/suppliers, regulatory regime, etc.
 - Paper LBO / Returns Questions
 - Typically given enough information to calculate stream of levered cash flows, know IRR and MOIC for different time frames (rule of 72, 114, 144)
 - LBO Understanding
 - Good LBO candidate, exit strategies, levers to boost IRR, what to do with surplus cash, debt financing characteristics, questions to ask management
 - Secondaries
 - All of the above + Denominator effect, LP vs. GP led, benefits of secondaries over primaries, characteristics of secondaries investments, macroeconomic pressures on LPs, understanding of fund structure and fee-flow



CREDIT **I**NVESTING



Direct Lending roles are very lucrative – they pay slightly less than PE but have considerably better work life balance. You learn to think like an investor and some of the biggest private capital investors have started analyst programs

- Common Technicals:
 - Accounting questions, Valuation questions, HY vs IG credit, Bond math, Loans vs Bonds, Credit vs Equity features
- Advanced Technicals:
 - Walk me through an LBO, Use of LBOs in credit, LBO Math (Calculating IRR and LBO)

Special Situations / Distressed / Opportunistic



A lot of these funds invest in credit, but also equity and structured equity/credit. Interviews are highly technical and focus on value investing intuition as well as a good understanding of credit, capital structure, and restructuring solutions

- Case Study Example
 - ABS report 24hrs prior to the interview -Make investment recommendation
- Technical Questions
 - Accounting Multisteps, Investing Case
 Study, Revenue → Unlevered FCF, EV
 Waterfall, Restructuring concepts,
 Valuation (DCF, LBO), EV QV



Some perspective

PE / Credit / Secondaries Associate Class Sizes: 5 - 12, with the biggest ones being around 18 (MM, UMM, and MF) **Investment Banking Analyst Class Sizes:** 8 (Restructuring and MM) - 180+ (Bulge Brackets)

- Pros of going to the buy side
 - Comparable, if not higher pay
 - Usually better hours
 - More "meaningful" work
 - Learn to think like an investor 2 years early
 - Cons
 - Smaller Network
 - No formal training at many firms
 - Can pigeonhole you (Eg: Infrastructure, Real Estate, Credit)

- Pros of going to the sell side
 - Great pay
 - Higher volume of work (More reps)
 - More Optionality, still good exits in 2 yrs
 - Structured Training and Larger Network
 - Cons:
 - Longer hours
 - More grunt work
 - Getting to the buy side is hard





Three Statements

- Income Statement
 - Records a company's summary of revenues and expenses *for the duration* of a specific period i.e., a complete fiscal year or a quarter
 - Two key principles of classification on the income statement:
 - Must be tax deductible
 - Must be *for* the stipulated / current period
 - Cash Flow Statement

Most Important Statement - Why?

- Reports cash receipts and payments *for the duration* of a specific period
- Extremely helpful in understanding the liquidity from operations, investing and financing activities
- Balance Sheet
 - Snapshot of a company's financial position *at the end* of a specific period
 - Records what a company owns versus what it owes in the short and the long run
 - Also, records the total equity / book value for a company taking into account a net of its proceeds from common / preferred stock, retained earnings, and APIC against dividends paid out and treasury stock



Linking The Three Statements

Cash Flow Statement

FY Ending December 31

\$3,618.00

Balance Check:

FY Ending December 31

OK!

Balance Sheet

| | | Cash Flow Statement Fl | chaing December 51 | balance Sneet | FI Chung December |
|--|-----------------------|--|--------------------|---|-------------------|
| | | (amounts in millions) | | (amounts in millions) | |
| Income Statement | FY Ending December 31 | CASH FLOWS FROM OPERATING ACTIVITIES: | | ASSETS: | |
| | FF Ending December 31 | | 101 | Current Assets: | |
| amounts in millions) | | Net Income: | \$1,679.00 | Cash & Equivalents: | \$3,618. |
| Total Revenue: | \$14,135.00 | Adjustments for Non-Cash Charges: | | Accounts Receivable: | 2,365 |
| | | (+) Depreciation: | 299 | Inventory: | 1,247 |
| Cost of Goods Sold (COGS): | 8,554.00 | +) Impairment of Goodwill: | 2 | Prepaid Expenses & Other Current Assets: | 2,586 |
| | | (+) Amortization of Other Intangibles: | 312 | Total Current Assets: | 9,816 |
| Gross Profit: | 5,581.00 | (+/-) Deferred Taxes: | 6 | | |
| Contraction of the second of the | | (+) Stock-Based Compensation: | 37 | Non-Current Assets: | |
| Operating Expanses | | (+/-) Other Non-Cash Items: | 76 | Net PP&E: | 1,709 |
| Operating Expenses: | 0.015.00 | Changes in Operating Assets and Liabilities: | | Goodwill: Other Intangible Assets: | 4,886 1,999 |
| (+) Selling, General & Administrative: | 2,815.00 | Accounts Receivable: | -83 | Other Long-Term Assets: | 1,556 |
| (+) Amortization of Intangible Assets: | 250 - | Inventory: | 24 | Total Non-Current Assets: | 10,150 |
| (+) Impairment of Goodwill: | 2 | Prepaid Expenses & Other Assets: | 226 | Iotal Non-Current Assets: | 10,150 |
| Total Operating Expenses: | 3,067.00 | Accounts Payable: | 8 | Total Assets: | \$19,966 |
| | 1.25525550011.53 | Accrued Expenses: | 161 | iotar Assets. | 915,500 |
| Operating Income (EBIT): | 2,514.00 | Other Liabilities: | -219 | LIABILITIES AND EQUITY: | |
| Operating (EBIT) Margin: | 17.80% | Net Cash Provided by Operating Activities: | 2,528.00 | Current Liabilities: | |
| operating (EBN) margini | 1710070 | | | Accounts Payable: | \$634 |
| Other Income / (Funence) | | CASH FLOWS FROM INVESTING ACTIVITIES: | 244 | Accrued Expenses: | 1,272 |
| Other Income / (Expense): | | (-) Capital Expenditures: | -368 | Other Current Liabilities: | |
| (-) Interest Expense: | -239 | (+/-) Other Investing Items: | -88 | Total Current Liabilities: | 2,483 |
| (+) Interest and Other Income: | 72 | Net Cash Used in Investing Activities: | -456 | | |
| Total Other Income / (Expense): | -167 | | | Non-Current Liabilities: | |
| | 1 | CASH FLOWS FROM FINANCING ACTIVITIES: | | Long-Term Debt: | 6,344 |
| Pre-Tax Income: | 2,347.00 | (-) Dividends Paid: | -528 | Deferred Tax Liability: | |
| (-) Provision For Income Taxes: | -717 | (-) Stock Repurchases: | -1,900.00 | Other Long-Term Liabilities: | |
| Income from Continuing Operations: | 1,630.00 | (+) Debt Issuances / (-) Repayments: | 1,264.00 | Total Non-Current Liabilities: | 7,774 |
| meenie nom containing operations. | 1,000.00 | (+) Other Financing Items: | 24 | The second | |
| (+) Income from Discontinued Operations: | 49 | Net Cash Provided by Financing Activities: | -1,140.00 | Total Liabilities: | \$10,257. |
| ••• | | FX Rate Effects: | -93 | Equity: | \$9,709. |
| Net Income: | \$1,679.00 | Change in Cash & Cash Equivalents: | 839 | | 640.000 |
| | | Beginning Cash: | 2,779.00 | Total Liabilities & Equity: | \$19,966. |
| | | Contraction of the second seco | 2,775.00 | | |

Ending Cash:

Fundamental Concepts & Key Terms

- Basic Accounting Equation
 - Assets = Liabilities + Shareholders' Equity
 - Assets: Economic resources expected to yield benefits in the future (result from past transactions)
 - Liabilities: Economic obligations or debt expected to incur sacrifices in the future (result from past transactions)
 - Shareholders' Equity (or Book Value): The total value of a company available to equity shareholders after all the debt holders have been paid off through complete liquidation of the business's assets
- Working Capital
 - Conceptually, working capital for a company refers to the cash tied up to finance the day-to-day, core functions and current operations of a business
 - A business's *liquidity reserve* to cover its most current / pending liabilities
 - Net Working Capital (NWC)= Current Assets Current Liabilities
 - Operating Working Capital (OWC) = [Current Assets (Cash & Cash Equivalents)] [Current Liabilities (Interest Accruing Liabilities)]
 - Can NWC be negative? Is that a good or bad thing?



Single-step Scenarios

- Single change that flows through the three financial statements and happens over the span of 1 year
- 4 main categories of changes:
 - To true cash items
 - To non-cash / re-classified items
 - To operational items (items that flow into NWC)
 - To non-operational items (items in the investing and financing sections of CFS and shareholders equity)
- Things to keep in mind:
 - Be aware of the fundamental differences between an asset and a liability along with sources of revenue and expenses
 - Be clear about the tax treatments of key line items
 - Understand how the three statements are linked
 - Prepare to assume tax rate(s) from 20% to 40% and interest rate(s) from 5% to 20%



Single-step Scenarios

Walk through the immediate changes on the financial statements when a company's Accounts Receivable increases by \$10

Income Statement

Revenue goes up by **\$10**, Net Income goes up by **\$8** (assuming tax rate of 20%)

Cash Flow Statement

Net Income is up by \$8, AR is up (asset) so CFO will be down by \$10, Net Cash is down by \$2

Balance Sheet

Cash is down by **\$2**, AR is up by **\$10** so Total Assets will be up by **\$8**, Net Income flows into Retained Earnings so Liabilities plus Shareholders' Equity will be up by **\$8**



EQUITY & ENTERPRISE VALUE



EQUITY & ENTERPRISE VALUE

Definitions & Formulas

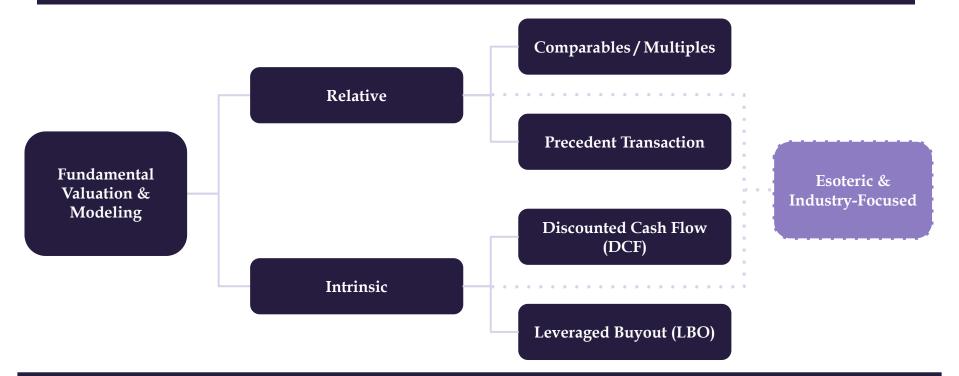
- Equity Value
 - It is the market capitalization of a company: how much it is worth to equity holders
 - Equity Value = Share price * Number of shares (for a public company)
 - For a private company, you have to be more creative to derive Equity Value (i.e. look at public comparables and apply a liquidity discount)
- Enterprise Value
 - <u>It is the value of a business's core operational assets to all shareholders</u> (both debt and equity)
 - It tells you how much it would cost for you to acquire a business
 - Basic formula: Enterprise Value = Equity Value + Debt Cash + Noncontrolling interests
 - Full formula:
 - Debt-like items (add): Preferred stock, Unfunded pension obligations, Capital leases, Restructuring liabilities
 - Cash-like items (subtract): Equity investments, Net operating losses



<u>V</u>ALUATION



Overview & Standard Methods





Comparable Companies

- Refers to the proverbial (almost legendary) act of *spreading comps*
- Will be used almost always during a live deal process, to slot into a pitch, or even before a catch up meeting
- Different multiples (EV / QV) are borne out of different metrics (EBIT / EBITDA / NI / FCF / Price / BV)
- Each multiple produces a different analysis and serves varying purposes for bankers and investors alike

Screening Criteria

- Geography
 - Segment into continents, countries, and domestic regions
- Industry
 - Think of coverage groups (TMT, FIG, C&R, HC, NR, Industrials)
- Financials (Size)
 - Metrics (Revenue, EBITDA, FCF, NI)

Conceptual & Logical Perspective

- A multiple (**shorthand**) allows us to relate the *implied* value yielded by a company for each dollar of its earning, profit, book and even market value
- Company's value based on its competitors / similar companies
- Can be used as a **cross check for intrinsic value** and a guiding principle for determining assumptions



Precedent Transactions

- Compile historical pricing data for sale of similar companies that have already occurred
- Will likely be used when there is sufficient data available on similar M&A transactions
- Multiples (EV / QV) derived from purchase price acquirers have paid in the past
- Often useful to get a sense of the *control premium* that has been negotiated between incumbents in the past

Screening Criteria

- Geography
- Industry
- Financials (Transaction Value)
- Time / Market Context
 - Timing adds context to the deal terms
 / size of premium (Multiples during GFC vs Today)

Caveats & Limitations

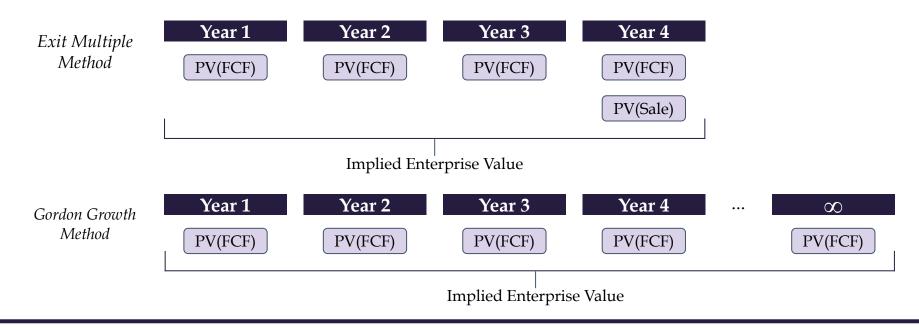
- Can only use **100**% **takeovers / acquisitions**
- **Earn outs** can skew the final transaction multiple
- **Payment methods** (cash / stock / debt) can impact multiples
- Often produce the most **random output**





Definition & Principle

A Discounted Cash Flow (DCF) analysis consists in valuing a company based on the present value of its aggregated future cash flows.





Projecting Free Cash Flow

| | Free Cash Flo | w Projection | า | | | | |
|--|---------------|-----------------------|---------|---------|--|---------|--|
| (amounts in millions) | FY En | FY Ending December 31 | | | Projected FY Ending December 31 | | |
| | 2018 | 2019 | 2020 | 2021E | 2022E | 2023E | |
| Revenue | \$100.0 | \$105.0 | \$110.3 | \$115.8 | \$121.6 | \$127.6 | |
| (-) COGS | (50.0) | (52.5) | (55.1) | (57.9) | (60.8) | (63.8) | |
| Gross Profit | 50.0 | 52.5 | 55.1 | 57.9 | 60.8 | 63.8 | |
| (-) Operating expenses | (20.0) | (21.0) | (22.1) | (23.2) | (24.3) | (25.5) | |
| EBITDA | 30.0 | 31.5 | 33.1 | 34.7 | 36.5 | 38.3 | |
| (-) D&A | (10.0) | (10.5) | (11.0) | (11.6) | (12.2) | (12.8) | |
| EBIT | 20.0 | 21.0 | 22.1 | 23.2 | 24.3 | 25.5 | |
| (-) Taxes | (4.0) | (4.2) | (4.4) | (4.6) | (4.9) | (5.1) | |
| Net Operating Profit After Tax (NOPAT) | 16.0 | 16.8 | 17.6 | 18.5 | 19.4 | 20.4 | |
| (+) D&A | 10.0 | 10.5 | 11.0 | 11.6 | 12.2 | 12.8 | |
| (-) Changes in NWC | (5.0) | (5.3) | (5.5) | (5.8) | (6.1) | (6.4) | |
| (-) CapEx | (10.0) | (10.5) | (11.0) | (11.6) | (12.2) | (12.8) | |
| Unlevered Free Cash Flow | 11.0 | 11.6 | 12.1 | 12.7 | 13.4 | 14.0 | |

| Margins (% of revenue) | | | | |
|------------------------|-----|--|--|--|
| COGS | 50% | | | |
| OpEx | 20% | | | |
| D&A | 10% | | | |
| Increases in NWC | 5% | | | |
| CapEx | 10% | | | |

| Projections & Rates | | | | | |
|-----------------------|-----|--|--|--|--|
| Revenue Growth | 5% | | | | |
| Tax | 20% | | | | |

- To project individual line items, we can either use a top-down approach, a bottom-up approach, or average out historical margins and assume that they will stay roughly constant over time
- (2) Because we care about the value of the firm to all investors, we project **Unlevered Free Cash Flow**



Discount Rate

| Discounted Unlevered Free Cash Flow | | | | | |
|-------------------------------------|-------|-------|-------|--|--|
| (amounts in million) | 2021E | 2022E | 2023E | | |
| Unlevered Free Cash Flow | 12.7 | 13.4 | 14.0 | | |
| Discounting Factor | 94% | 89% | 84% | | |
| Discounted Free Cash Flow | 12.0 | 11.9 | 11.8 | | |



We use the Weighted Average Cost of Capital (WACC) to obtain the discount rate. WACC reflects a company's capital structure, systemic risk (risk that is proper to its industry), and idiosyncratic risk (risk that is proper to the company's business model)

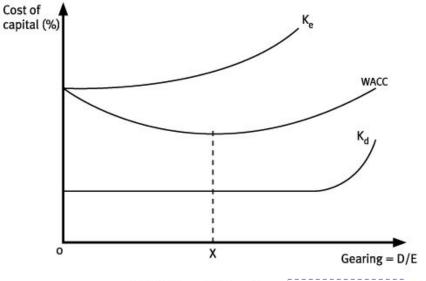
The lower the WACC, the closer to optimal the firm's capital structure, the lower its risk, and the higher the discounted cash flows

Discounted Cash Flow = Undiscounted Cash Flow * Discounting Factor

= Undiscounted Cash Flow
$$*\frac{1}{(1 + WACC)^t}$$



Computing WACC



The goal of every company is to minimize its cost of capital

- Too much equity results in a higher WACC because equity is a more expensive form of financing than debt
- Too much debt results in a higher WACC because the company is at risk of being overleveraged
- WACC is minimized somewhere in the middle. The exact balance of debt to equity depends on the company and the industry it operates in

WACC = %Equity * Cost of Equity + %Debt * Cost of Debt * (1 - Tax Rate)

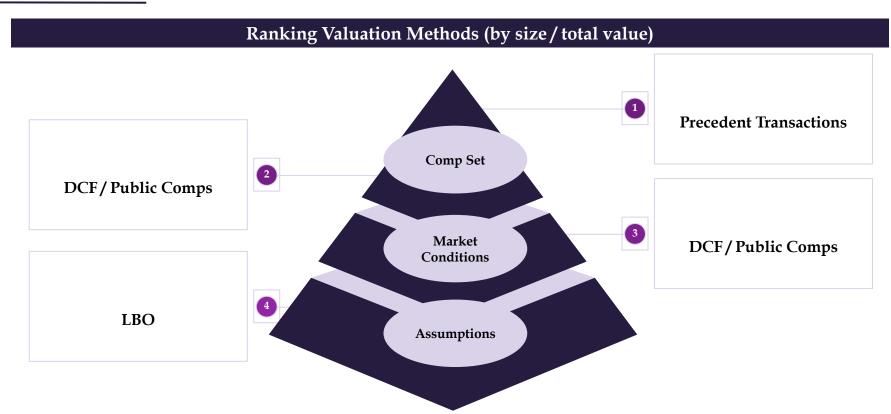
Cost of Equity = Riskfree Rate + Equity Risk Premium * Levered Beta



Putting It All Together

- (1) Project income statement items over the next couple of years using either a bottom-up or top-down approach and project Unlevered Free Cash Flow
- (1) Compute WACC as the weighted average of the firm's Cost of Equity and Cost of Debt
 - To compute Cost of Equity, use the Capital Asset Pricing Model formula. Take your industry's median Unlevered Beta, re-lever it, and use this Levered Beta as a measure of your firm's risk
 - Compute Cost of Debt as the sum of your firm's weighted coupon payments
- (1) Use WACC to obtain the discounting factor and compute the present value of the projected cash flows
- (1) Use either the Multiple Method or the Gordon Growth Method to derive your firm's Terminal Value
- (1) The discounted Terminal Value added to the sum of the discounted future cash flows gives you the firm's Enterprise Value. Use it to derive the Implied Share Price

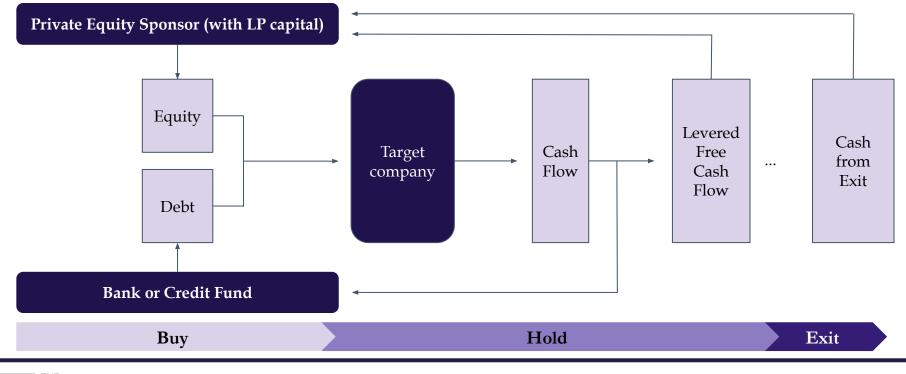








Mechanics of a LBO





LBO Model: Entry & Exit Assumptions

A private equity sponsor acquires Company A at the end of 2020 under the following terms:

- Purchase is done at 10x LTM EBITDA (FY2020 EBITDA is \$40 million)
- The sponsor repays all \$25 million of Company A's outstanding debt at acquisition
- The sponsor incurs transaction fees worth 5% of the purchase price
- The acquisition is to be funded with a \$100 million Term Loan, \$100 new Senior Secured Notes, and \$50 million new Senior Unsecured Notes, with the rest of the funding being equity

The sponsor intends to exit at the end of 2025 under the following terms:

- Exit will be done at 10x LTM EBITDA
- All of the senior debt that can be repaid early must be repaid early. The sponsor will repay the remaining outstanding debt during the exit



LBO Model: Sources & Uses

| Sources | | Uses | |
|--------------------------|---------|---------------------|---------|
| New Term Loan | \$100.0 | Purchase Price | \$400.0 |
| New Senior Secured Notes | 100.0 | Repay existing debt | 25.0 |
| New Senior Notes | 50.0 | Transaction fees | 20.0 |
| Sponsor's Equity | 195.0 | | |
| Total | 445.0 | Total | 445.0 |



LBO Model: Operating Model

| Operating Model | | | | | | |
|------------------------|---------|---------|---------|---------|---------|---------|
| | FY 2020 | 2021E | 2022E | 2023E | 2024E | 2025E |
| Revenue | \$100.0 | \$125.0 | \$156.3 | \$195.3 | \$244.1 | \$305.2 |
| EBITDA | 40.0 | 50.0 | 62.5 | 78.1 | 97.7 | 122.1 |
| (-) D&A | (5.0) | (6.3) | (7.8) | (9.8) | (12.2) | (15.3) |
| EBIT | 35.0 | 43.8 | 54.7 | 68.4 | 85.4 | 106.8 |
| (-) Interest expense | 0.0 | (10.2) | (9.8) | (9.2) | (8.5) | (7.6) |
| Earnings before Tax | 35.0 | 33.6 | 44.9 | 59.1 | 76.9 | 99.2 |
| (-) Tax expense | (7.0) | (6.7) | (9.0) | (11.8) | (15.4) | (19.8) |
| Net Income | 28.0 | 26.9 | 35.9 | 47.3 | 61.5 | 79.4 |
| (+) D&A | 5.0 | 6.3 | 7.8 | 9.8 | 12.2 | 15.3 |
| (-) CapEx | (10.0) | (12.5) | (15.6) | (19.5) | (24.4) | (30.5) |
| (-) Changes in NWC | (5.0) | (6.3) | (7.8) | (9.8) | (12.2) | (15.3) |
| Levered Free Cash Flow | 18.0 | 14.4 | 20.3 | 27.8 | 37.1 | 48.9 |

| Margins & Growth | | | |
|-------------------|-----|--|--|
| Revenue growth 25 | | | |
| EBITDA | 40% | | |
| D&A | 5% | | |
| Tax rate | 20% | | |
| Capex | 10% | | |
| Changes in NWC | 5% | | |

We compute Levered Free Cash Flow because we care about the value of the company to equity investors only



LBO Model: Debt Paydown

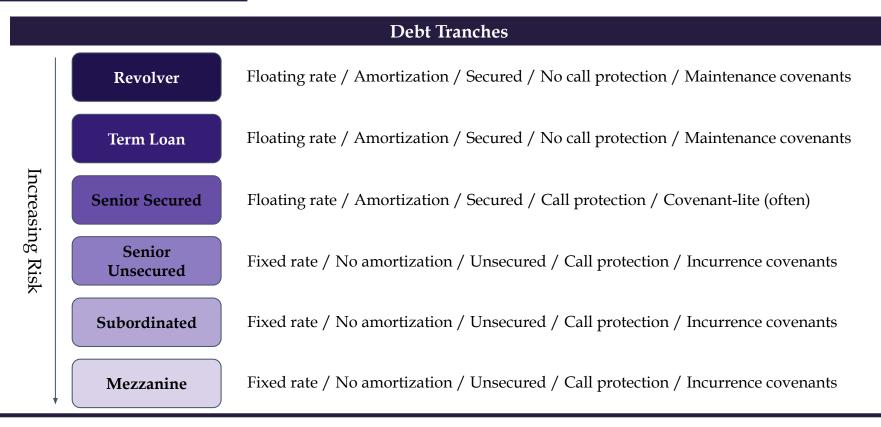
| Debt Paydown | | | | | | |
|------------------------------------|---------|--------|-------|-------|--------|--------|
| | FY 2020 | 2021E | 2022E | 2023E | 2024E | 2025E |
| Cash available for debt repayment | 18.0 | 32.4 | 20.3 | 27.8 | 37.1 | 48.9 |
| Term Loan Interest rate 2.009 | * | | | | | |
| Beginning Balance | 0.0 | 100.0 | 82.8 | 74.5 | 60.5 | 36.2 |
| (-) Amortization | 0.0 | (10.0) | (8.3) | (7.5) | (6.1) | (3.6) |
| (-) Prepayment | 0.0 | (7.2) | 0.0 | (6.5) | (18.2) | (32.6) |
| Ending Balance | 0.0 | 82.8 | 74.5 | 60.5 | 36.2 | 0.0 |
| Interest Expense | 0.0 | (1.7) | (1.5) | (1.2) | (0.7) | 0.0 |
| Senior Secured | _ | | | | | |
| Interest rate 5.009 | % | | | | | |
| Beginning Balance | 0.0 | 100.0 | 95.0 | 90.3 | 85.7 | 81.5 |
| (-) Amortization | 0.0 | (5.0) | (4.8) | (4.5) | (4.3) | (4.1) |
| (-) Prepayment | 0.0 | 0.0 | 0.0 | 0.0 | (0.0) | (1.0) |
| Ending Balance | 0.0 | 95.0 | 90.3 | 85.7 | 81.5 | 76.4 |
| Interest Expense | 0.0 | (4.8) | (4.5) | (4.3) | (4.1) | (3.8) |
| Senior Unsecured | | | | | | |
| Interest rate 7.509 | % | | | | | |
| Beginning Balance | 0.0 | 50.0 | 50.0 | 50.0 | 50.0 | 50.0 |
| (-) Amortization | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Ending Balance | 0.0 | 50.0 | 50.0 | 50.0 | 50.0 | 50.0 |
| Interest Expense | 0.0 | (3.8) | (3.8) | (3.8) | (3.8) | (3.8) |
| Cash available after debt repaymen | nt 18.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |



LBO Model: IRR Analysis

| Exit Assumptions | |
|---------------------------|---------------|
| 10x LTM EBITDA exit price | 1,220.7 |
| (-) Debt oustanding | (126.4) |
| Equity received | 1,094.3 |
| Entry equity MOIC | 195.0 5.6x |
| IRR | 41% |









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