

Week 8 – Relative Valuation

Investment Banking Recruiting

October 25, 2024



- “Passion for finance”
- “Once I get an internship, all my problems will be solved”
- Needing extensions on the midterm
 - Effective coffee chatting and networking
- Understanding of investment banking

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Intrinsic vs Relative Valuation



Trading Comps

Precedent Transactions

Assignments & Attendance Word

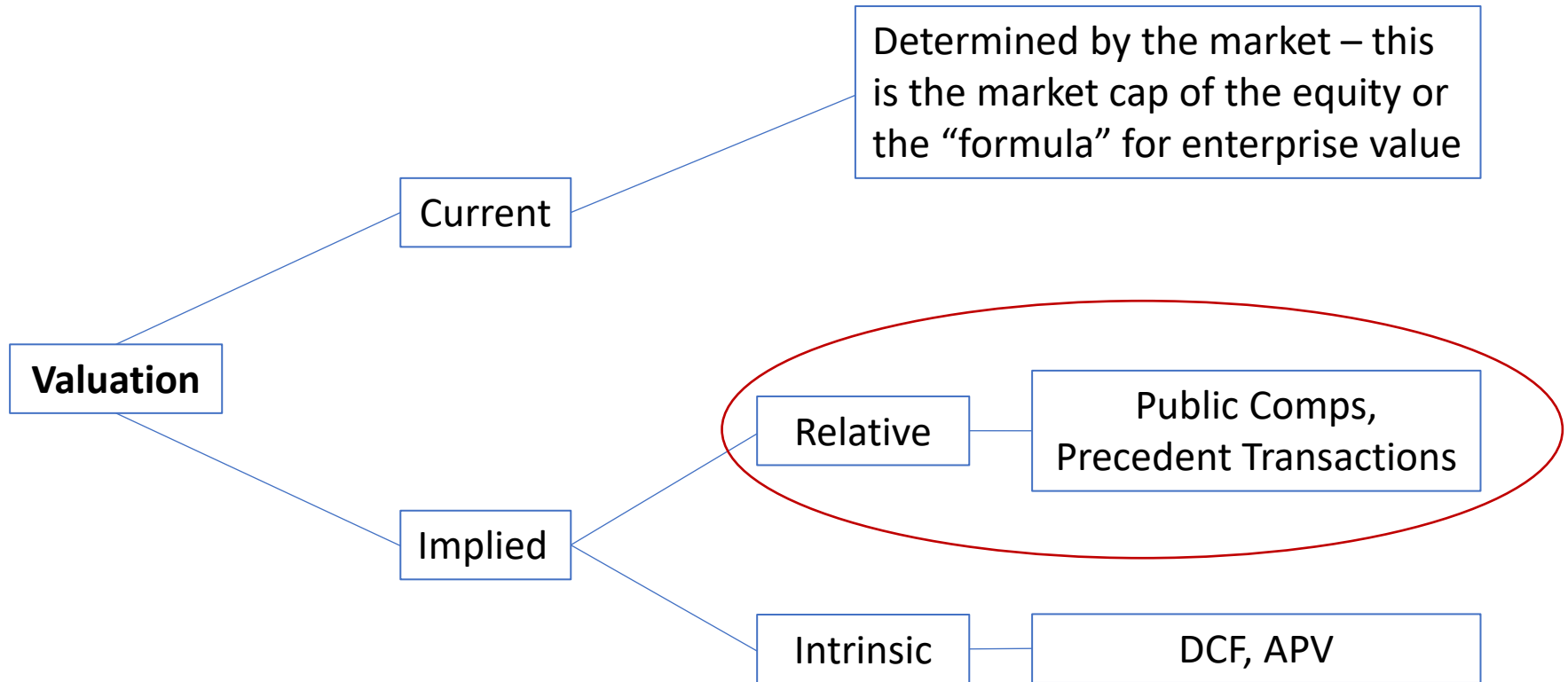
Intrinsic vs relative valuation

The 2 common approaches to valuing a business are Intrinsic (DCF) or Relative Value (Comps). The focus of this course is Relative Valuation

| Approach | Definition/Application | Benefits | Considerations |
|--|--|--|--|
| Intrinsic  | <ul style="list-style-type: none">Valuation based on a company's potential future free cash flow generationDiscounted Cash Flows | <ul style="list-style-type: none">Directly linked to traditional academic theoryUseful if there are limited comparable companies or precedent M&A deals | <ul style="list-style-type: none">Subject to assumptions used to project future FCFFCF projections may differ from those implied by current public markets |
| Relative  | <ul style="list-style-type: none">Valuation based on how a company compares relative to its peersTrading Comps or Precedent Transactions | <ul style="list-style-type: none">Provides a benchmark to determine market valueReflects the current public market valuation and overall sentiments | <ul style="list-style-type: none">Can be distorted by several items (market volatility)Not based on fundamental FCF generationDepending on industry, universe of comparable comps may be limited |

Current vs Implied Valuation

The most effective tool for valuing an asset is a financial market – analysis made by an investment banker seeks to represent value on either a relative or intrinsic basis to cross check market valuations and value private firms



What determines the value
of an asset?

$$EV = \frac{FCF_n * (1 + g)}{(r - g)}$$

Intrinsic Valuation

$$EV = \frac{1}{(r - g)} * FCF_{n+1}$$

Relative Valuation

$$EV = \frac{1}{(r - g)} * FCF_{n+1}$$

$$EV = 10x * FCF_{n+1}$$

Multiples are a shorthand measure for intrinsic valuation – both value the firm based off the present value of future cash flows

$$\frac{1}{(r - g)} * FCF_{n+1} = 10x * FCF_{n+1}$$

What must be true of WACC and the growth rate for this equation to hold true?

$$\frac{1}{(r - g)} * FCF_{n+1} = 10x * FCF_{n+1}$$

Parameters of Relative Valuation

For multiples to be applied from one set of firms to another, the firms must face similar systematic risk and have similar growth rates – this allows for standardization of WACC and thus leaves CF as the only variable

$$\frac{1}{(r - g)} * FCF_{n+1} = 10x * FCF_{n+1}$$

Essential Characteristics of Comps Universe

Business Characteristics

- Sector
- Products and Services
- Customers and End Markets
- Distribution Channels
- Geography

Financial Characteristics

- Size
- Profitability
- Growth
- Return on Investment
- Credit Profile

Review of Cash Flows

In the world of finance, you will often hear the word levered used to describe whether the impacts of capital structure have been taken into consideration when looking into cash flows, multiples, and valuation

Unlevered (EV)

The impacts of capital structure have not yet been considered

$$\text{FCFF (UFCF)} = \text{NOPAT} + \text{D\&A} - \text{NWC} - \text{Capex}$$

Levered (Equity Value)

The impacts of capital structure (financial leverage), including the payment of interest, have been considered

$$\text{FCFE (LFCF)} = \text{NI} + \text{D\&A} - \text{NWC} - \text{Capex} - \text{Net Borrowing}$$

Cash Flows and Practical Applications

Cash drives firm value – thus in a perfect world, only cash flow multiples would be used to represent firm value, however as the income statement is standardized and thus allows for greater degree of comparability

| Valuation Metrics | |
|--|--|
| Cash Flow <ul style="list-style-type: none">- FCFF (UFCF)- FCFE (LFCF)- FCF | Income Statement <ul style="list-style-type: none">- Revenue- EBITDA- EBIT- Net Income |

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Trading comps overview

By comparing a company's relative position within its industry, we can establish a framework for valuing that company

Main Concept



Comparable Companies Analysis (aka “Trading Comps”) – similar companies provide a key reference point for valuing one given company. By **benchmarking a company's relative position** within its competitive landscape, we can begin to form a view on valuation for that company

Why Trading Comps?

Peer companies share similar business models, financial profiles, performance drivers, and risks

Purpose of Analysis

Calculating a potential valuation range for a target based on **trading values** of publicly-traded peers

Remember the House?



How to Do It

- **Select peer companies** to benchmark against one another
- **Calculate valuation multiples** for peers based on public market trading levels
- **Apply your company's financial metrics** to the range implied by peers to derive valuation

Review of multiples

Definition



Multiples – use a **value metric** in the numerator and a **financial or operational metric** in the denominator. Reflects current valuation on a per unit basis based on market conditions

Enterprise Value Multiples

EV / Revenue

Enterprise Value divided by Revenue

EV / EBITDA

Enterprise Value divided by EBITDA

EV / EBIT

Enterprise Value divided by EBIT

Equity Value Multiples

P / E

Equity Value divided by Net Income, **OR**
(Price per Share divided by EPS)

PEG

P / E ratio divided by Projected Long-term EPS
Growth Rate

P / B

Equity Value divided by Book Value of Equity

Common EV multiples

Financial analysts use multiples to fit a specific use case, such as valuing an early-stage venture versus an established, mature and profitable Fortune 500 company

| Multiple | Denominator | Benefits | Drawbacks |
|---------------------|--|---|--|
| EV / Revenue | Total Revenue | <ul style="list-style-type: none"> Used to value companies based on future prospects High growth or early-stage companies | <ul style="list-style-type: none"> Assumes peer companies have comparable cost structures Revenue potential is not a direct link or guarantee for profit or cash flow generation |
| EV / EBITDA | EBITDA (Revenue – COGS – Operating Expenses + D&A +/- Non-recurring Items) | <ul style="list-style-type: none"> Most popular EV multiple used across industries Independent of capital structure P&L-based proxy for cash flow from ops. as it excludes D&A | <ul style="list-style-type: none"> Less useful when comps have different levels of capital intensity because the need to exclude the impact of D&A expense is less critical |
| EV / EBIT | EBIT (Revenue – COGS – OpEx +/- Non-recurring Items) Can also use Operating Income | <ul style="list-style-type: none"> Reflects core operations without impact of financing and non-recurring items Useful when capital intensity is not comparable or when D&A is not available | <ul style="list-style-type: none"> Used less than EV / EBITDA because differences in D&A accounting policies and CapEx timing can cause skews in data |

Common equity value multiples

Financial analysts use multiples to fit a specific use case, such as valuing an early-stage venture versus an established, mature and profitable Fortune 500 company

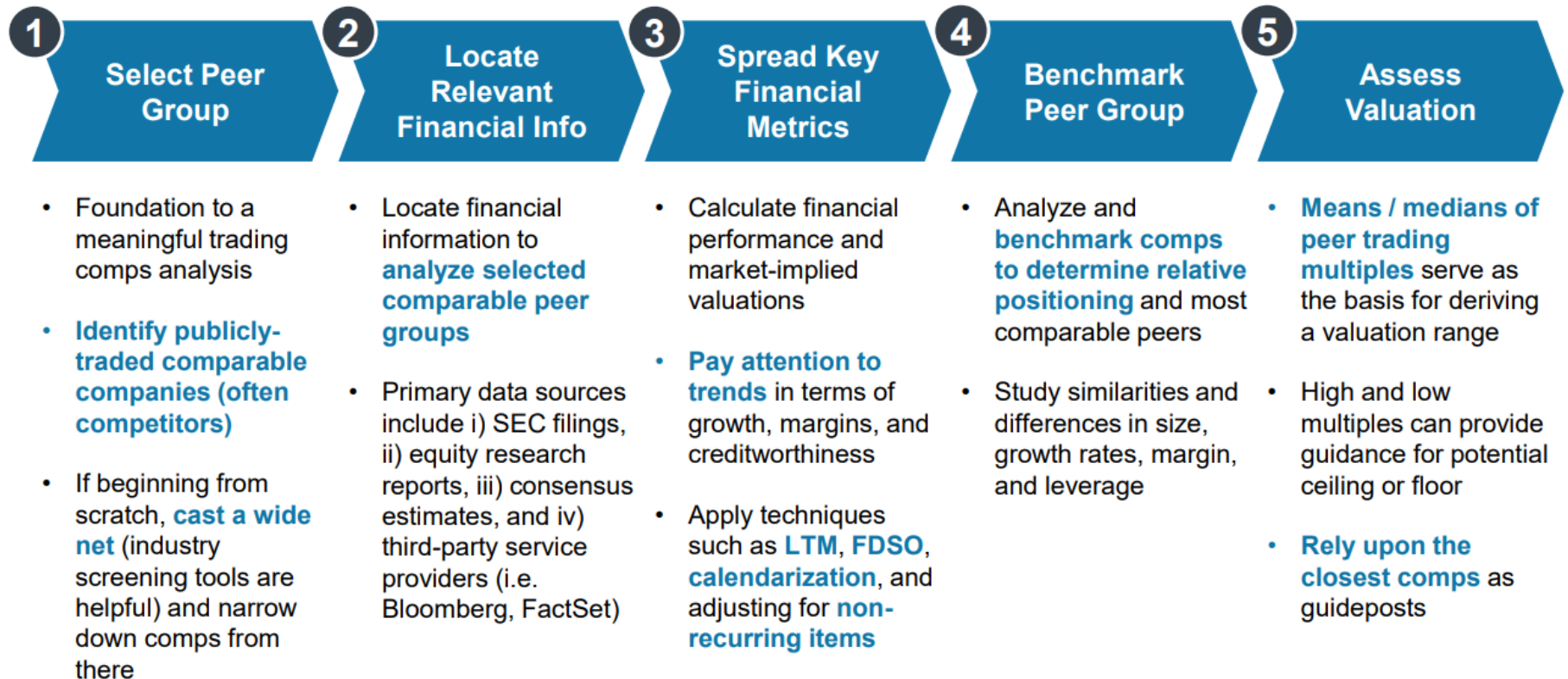
| Multiple | Denominator | Benefits | Drawbacks |
|--|---|--|--|
| P/E OR Price Per Share / EPS OR Equity Value / NI | Net Income or Earnings per Share | <ul style="list-style-type: none"> Most widely-recognized trading multiple Useful when companies have consistently grown EPS | <ul style="list-style-type: none"> Net Income and EPS are GAAP figures which can mask core business performance Less useful for earlier-stage high growth companies with no profit Not independent of capital structure |
| Price / Book | Book Value of Shareholder's Equity | <ul style="list-style-type: none"> Most relevant for financial institutions and insurance Highlights companies whose market cap is driven by intangible assets | <ul style="list-style-type: none"> Less relevant for companies outside the financial institutions industry Book Value is based on historical trends and could be conservative Not meaningful if BV is negative |
| PEG | EPS Growth Rate | <ul style="list-style-type: none"> Compares peers at different stages of maturity but with positive earnings Helps identify companies who may be overvalued (higher PEG ratios) | <ul style="list-style-type: none"> Not useful for companies whose EPS is heading downward, even if positive Also influenced by capital structure |

Industry specific multiples

Certain sectors may have valuation multiples that are more applicable to the nature of the industries or stage of life for the companies in the sector

| Relevant Multiple | Applicable Sector(s) | Commentary |
|--|---|---|
| EBITDAR (Earnings Before Interest, Taxes, D&A and Rent Expense) | <ul style="list-style-type: none"> Retail Restaurants Airlines Casinos | <ul style="list-style-type: none"> Rent is one of the most significant expenses in these sectors, and accounting treatments for leases can lead to large differences in terms of rent expense Owning real estate vs. renting may also cause differences that can be standardized EBITDAR standardizes by removing rent expenses |
| EBITDAX (Earnings Before Interest, Taxes, D&A, Depletion, & Exploration) | <ul style="list-style-type: none"> Oil & Gas Natural Resources | <ul style="list-style-type: none"> Similar to the rent example above, Exploration activities are the largest investments for O&G companies; however, different accounting treatments for Exploration can create misleading views of one comp's profitability vs. another's EBITDAX standardizes by removing D&A and exploration expenses |
| Production / Capacity (in units) | <ul style="list-style-type: none"> Oil & Gas Natural Resources Metals & Mining | <ul style="list-style-type: none"> High risk / high reward NatRes projects can be valued as multiples of operating metrics if the asset(s) is either idle or in development |
| Reserves | | |
| Subscribers / Users | <ul style="list-style-type: none"> Software & Tech Media Telecommunications | <ul style="list-style-type: none"> Early stage tech. companies with little to no revenue and negative profitability can be valued through operating metrics, such as subscribers, monthly active users, etc. Be careful – assumes monthly users and subscribers will lead to revenues and profits (and at consistent rates across peer companies) |
| Square Footage & Same Store Sales | <ul style="list-style-type: none"> Real Estate Retail | <ul style="list-style-type: none"> Key operating metrics driving current top line and future growth potential |
| Fiber Miles | <ul style="list-style-type: none"> Telecommunications | <ul style="list-style-type: none"> One of the highest value assets in telecomm are owned fiber miles |

Trading comps analysis steps





The steps above are a guidepost for any financial analyst looking to conduct a trading comps analysis

1. Select the universe of comps

Similarly-sized companies in the same sector are the best comps. If no clear public comps, widen search to include companies outside the company's sector that share other business or financial characteristics

Comparable Characteristics for Peer Companies:

|  Business Characteristics |  Financial Profile |
|---|---|
| <ul style="list-style-type: none">• Sector – consider industry cyclicality; some sectors are inherently riskier than others, but those in the same industry likely have similar performance drivers | <ul style="list-style-type: none">• Size – measured in terms of Market Cap as well as Revenue, Gross Profit, EBITDA and Net Income |
| <ul style="list-style-type: none">• Products / Services – stable / growing end markets? | <ul style="list-style-type: none">• Profitability – Gross, EBITDA, Net Profit margins |
| <ul style="list-style-type: none">• Customers and End Markets – customer quantity and diversity; ideally a balance of stable core to provide visibility for future revenues with enough diversification to manage concentration risk | <ul style="list-style-type: none">• Growth Profile – higher growth companies command premium valuation multiples over slower growth peers. Consider whether the growth is organic or driven by M&A |
| <ul style="list-style-type: none">• Distribution Channels – distributors often have different cost structures than companies selling to retailers or D2C | <ul style="list-style-type: none">• Credit Profile – Leverage (Debt / EBITDA), Coverage (EBITDA / Interest Expense), etc. |
| <ul style="list-style-type: none">• Geography | <ul style="list-style-type: none">• Return on Investment |

Similarly-sized comps can achieve comparable levels of scale and purchasing power, leverage across the supply chain, growth prospects, end markets and customers

1. Select the universe of comps

- **Company Value =**

$$\frac{\text{Cash Flow}}{(\text{Discount Rate} - \text{Cash Flow Growth Rate})}$$

Where the Cash Flow Growth Rate Must Be $<$ Discount Rate

- **So:** If the companies in the set have similar Discount Rates and similar Cash Flows, then differences in the Cash Flow Growth Rates *should* explain differences in the multiples



2. Locate the necessary financial info

Key info. analysts used to prepare trading comps (both historical and forward-looking) can be sourced from most recent 10-K, 10-Q, 8-K, press releases, equity research, etc.

Income Statement Data

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

Balance Sheet Data

- Cash Balances
- Debt Balance
- Shareholder's Equity

Cash Flow Statement Data

- Depreciation & Amortization
- Capital Expenditures

Share Information

- Basic Shares Outstanding
- Options and Warrants Data

Forward-looking research estimates for the metrics above can also be found in **consensus or individual equity research reports**



Lulu Lemon example

| Metric | Amount | Source |
|--------------------------------|------------------------|---|
| Price per Share ⁽¹⁾ | \$211.23 | <ul style="list-style-type: none"> Bloomberg |
| (*) FDSO | 131 million | <ul style="list-style-type: none"> FY2019 10K – FS footnotes |
| Equity Value | \$27.7 billion | |
| (+) Total Debt | -- | <ul style="list-style-type: none"> FY2019 10K – FS footnotes |
| (+) Pref. Stock | -- | <ul style="list-style-type: none"> FY2019 10K – Balance Sheet |
| (+) NCI | -- | <ul style="list-style-type: none"> FY2019 10K – Balance Sheet |
| (-) Excess Cash | \$1.1 billion | <ul style="list-style-type: none"> FY2019 10K – Balance Sheet |
| (=) Enterprise Value | \$26.6 billion | |
| | | |
| FY19 Revenue | \$3.979 billion | <ul style="list-style-type: none"> 10K for FY19 – Income Statement |
| FY19 EBIT | \$889 million | <ul style="list-style-type: none"> 10K for FY19 – Income Statement and supplemental disclosure in FY19 press release |
| FY19 Net Income | \$645 million | <ul style="list-style-type: none"> 10K for FY19 – Income Statement and supplemental disclosure in FY19 press release |

LULU US \$ **↓ 211.23** -0.86
At 15:17 d Vol 902,583 0 212.390

Solution

- **EV / FY19 Revenue:**
✓ 26.6bn / 4.0bn
= **~7x**
- **EV / FY19 EBIT:**
✓ 26.6bn / 889mm
= **~30x**
- **P / E:**
✓ 27.7bn / 645mm
= **~43x**

3. Spread key statistics, ratios, and trading multiples

The notion of “spreading” refers to performing calculations in a spreadsheet program such as Microsoft Excel

Lululemon trades at premium valuation multiples across the board, due to its market-leading growth, margins, returns to all investors per dollar of invested capital, same store sales, and other KPIs

LULU has consistently traded at EV / Revenue and EV / EBITDA multiples in the 6x-7x and 27-29x, respectively over the past 2 years. These are considered very strong, premium multiples for the industry (and market more broadly)



| | | | | | | | |
|---|------------|------------|------------|------------|------------|------------|--|
| LULU US \$ 211.23 -0.86 J211.22 / 211.53Z 1x1 | | | | | | | |
| At 15:17 d Vol 902,583 0 212.39Q H 216.72Q L 210.42D Val 192.861M | | | | | | | |
| LULU US Equity 96 Actions 97 Export 98 Settings Financial Analysis | | | | | | | |
| ADJ Lululemon Athletica Inc ASC 842 ? Periods 10 Annuals Cur FRC (USD) | | | | | | | |
| Key Stats I/S B/S C/F Ratios Segments Addl ESG Custom Shared | | | | | | | |
| Adj Highlights GAAP Highlights Earnings Enterprise Value EV Ex Operating Leases Multiples Pe... | | | | | | | |
| Millions of USD except Per Share | | | | | | | |
| 2 Months Ending | 2019 Y | 2020 Y* | Current | 2021 Y Est | 2022 Y Est | 2023 Y Est | |
| | 02/03/2019 | 02/02/2020 | 04/23/2020 | 01/31/2021 | 01/31/2022 | 01/31/2023 | |
| EV/Sales | 5.55 | 7.75 | 6.83 | 6.71 | 5.60 | 4.90 | |
| Average | 5.68 | 7.21 | | | | | |
| High | 7.75 | 9.45 | | | | | |
| Low | 3.54 | 5.38 | | | | | |
| EV/EBITDA | 22.03 | 25.13 | 22.16 | 27.58 | 21.10 | 18.96 | |
| Average | 26.66 | 28.61 | | | | | |
| High | 36.37 | 37.50 | | | | | |
| Low | 16.64 | 21.35 | | | | | |
| EV/EBIT | 25.86 | 33.70 | 29.70 | 35.21 | 25.78 | 22.02 | |
| Average | 32.98 | 33.59 | | | | | |
| High | 45.00 | 44.01 | | | | | |
| Low | 20.59 | 25.06 | | | | | |

Key Takeaway:

The market will pay a “top of the line” valuation multiple for a dollar of revenue or earnings from a company they believe has industry-leading growth, margins, cash flow, and / or future prospects

4. Benchmark the comparable company

Benchmarking serves to determine the relative strength of the comparable companies versus one another and the target.

Nike trades at a significant valuation premium relative to comps. This can be explained by Nike's relative size, growth prospects in key geographies, and competitive EBITDA margins

(\$ in millions, except per share data, unless otherwise noted in the Currency column)

| General Information | Enterprise Value / | | | | | | | | | Price / | | | | LTM Leverage Ratios | | |
|---------------------|--------------------|-------------|-------------|------------|--------------|--------------|----------|------------|------------|---------|-----------|-----------|--------------|---------------------|---------------|-------------------|
| | LTM Sales | 2020E Sales | 2021E Sales | LTM EBITDA | 2020E EBITDA | 2021E EBITDA | LTM EBIT | 2020E EBIT | 2021E EBIT | LTM EPS | 2020E EPS | 2021E EPS | LTM Lev. FCF | Debt / Tot. Cap. | Debt / EBITDA | Net Debt / EBITDA |
| Nike | 3.4x | 3.5x | 3.2x | 22.5x | 26.1x | 22.0x | 27.2x | 30.0x | 24.7x | 32.4x | 33.9x | 28.0x | 41.1x | 2% | 0.6x | 0.1x |
| Adidas | 1.7x | 1.9x | 1.7x | 10.1x | 15.4x | 11.1x | 15.0x | 25.3x | 15.6x | 20.6x | 36.2x | 21.6x | 18.5x | 4% | 0.4x | NM |
| Lululemon | 6.7x | 6.6x | 5.7x | 24.4x | 27.2x | 22.1x | 30.1x | 33.8x | 26.5x | 43.0x | 46.7x | 37.0x | 72.0x | 0% | 0.0x | NM |
| Puma | 1.4x | 1.5x | 1.3x | 11.3x | 16.2x | 10.7x | 17.6x | 30.4x | 15.2x | 30.9x | 64.3x | 27.8x | 24.5x | 2% | 0.3x | NM |
| Under Armour | 0.7x | 0.9x | 0.8x | 8.0x | 29.8x | 12.3x | 15.9x | NM | 26.9x | 41.7x | NM | 44.0x | 11.1x | 13% | 1.3x | NM |
| High | 6.7x | 6.6x | 5.7x | 24.4x | 29.8x | 22.1x | 30.1x | 33.8x | 26.9x | 43.0x | 64.3x | 44.0x | 72.0x | 13% | 1.3x | 0.1x |
| Low | 0.7x | 0.9x | 0.8x | 8.0x | 15.4x | 10.7x | 15.0x | 25.3x | 15.2x | 20.6x | 33.9x | 21.6x | 11.1x | 0% | 0.0x | 0.1x |
| Median | 1.7x | 1.9x | 1.7x | 11.3x | 26.1x | 12.3x | 17.6x | 30.2x | 24.7x | 32.4x | 41.5x | 28.0x | 24.5x | 2% | 0.4x | 0.1x |
| Mean | 2.8x | 2.9x | 2.5x | 15.3x | 22.9x | 15.7x | 21.2x | 29.9x | 21.8x | 33.7x | 45.3x | 31.7x | 33.4x | 4% | 0.5x | 0.1x |
| Mean (excl. NKE) | 2.6x | 2.7x | 2.3x | 13.4x | 22.2x | 14.1x | 19.6x | 29.8x | 21.0x | 34.0x | 49.1x | 32.6x | 31.5x | 5% | 0.5x | NA |

| General Information | LTM Financial Statistics | | | | | | LTM Profitability Margins | | | | Growth Rates ⁽¹⁾ | | | | | | Return on Investment | | | | |
|---------------------|--------------------------|--------------|--------|-------|------------|-------|---------------------------|--------|------|------------|-----------------------------|------|--------------|------|-------|----------|----------------------|------|-----|-----|--------------------|
| Company | Sales | Gross Profit | EBITDA | EBIT | Net Income | EPS | Gross Profit | EBITDA | EBIT | Net Income | Sales Hist. | Est. | EBITDA Hist. | Est. | Hist. | EPS Est. | Est. LT | ROIC | ROE | ROA | Implied Div. Yield |
| Nike | 41,274 | 18,521 | 6,262 | 5,180 | 4,318 | 2.71 | 45% | 15% | 13% | 10% | 5% | 7% | -2% | 10% | -1% | 14% | 10% | 33% | 48% | 17% | 1% |
| Adidas | 23,640 | 12,293 | 4,037 | 2,704 | 1,999 | 10.12 | 52% | 17% | 11% | 8% | 6% | 2% | 24% | -5% | 33% | -2% | 8% | 25% | 30% | 11% | 2% |
| Lululemon | 3,979 | 2,223 | 1,096 | 889 | 645 | 4.93 | 56% | 28% | 22% | 16% | 22% | 11% | 32% | 7% | 36% | 10% | 8% | 41% | 38% | 24% | 0% |
| Puma | 5,502 | 2,686 | 686 | 439 | 262 | 1.75 | 49% | 12% | 8% | 5% | 15% | 5% | 47% | 3% | 38% | 5% | 10% | 16% | 15% | 7% | 0% |
| Under Armour | 5,267 | 2,471 | 477 | 241 | 96 | 0.21 | 47% | 9% | 5% | 2% | 3% | -3% | 13% | -19% | 14% | -15% | 4% | 7% | 5% | 2% | 0% |
| High | | | | | | | 56% | 28% | 22% | 16% | 22% | 11% | 47% | 10% | 38% | 14% | 10% | 41% | 48% | 24% | 2% |
| Low | | | | | | | 45% | 9% | 5% | 2% | 3% | -3% | -2% | -19% | -1% | -15% | 4% | 7% | 5% | 2% | 0% |
| Median | | | | | | | 49% | 15% | 11% | 8% | 6% | 5% | 24% | 3% | 33% | 5% | 8% | 25% | 30% | 11% | 0% |
| Mean | | | | | | | 50% | 16% | 12% | 8% | 10% | 4% | 23% | -1% | 24% | 2% | 8% | 24% | 27% | 12% | 1% |
| Mean (excl. NKE) | | | | | | | 51% | 17% | 12% | 8% | 11% | 4% | 29% | -4% | 31% | -1% | 8% | 22% | 22% | 11% | 0% |

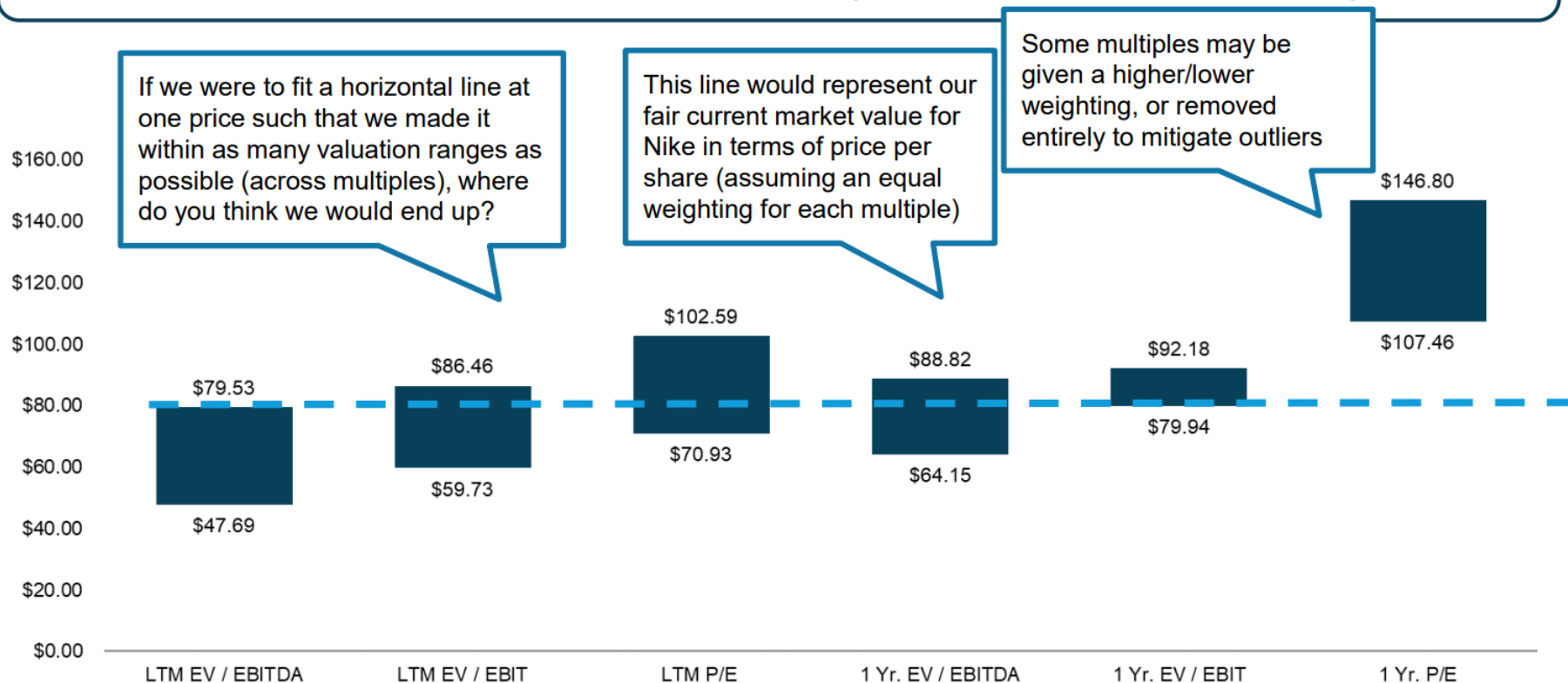
Sources: Company filings, Bloomberg, Consensus Estimates

1. Presented on a calendarized basis. Growth rates represent 2 year CAGRs to help offset impact of 2020 market and earnings volatility.

5. Determine valuation

As this process involves as much “art” as “science,” senior bankers are typically consulted for guidance on the final decision.

Trading Comps indicates an implied range of share prices between \$60-\$90 based on most Enterprise Value multiples. Share price implied by P/E multiples are impacted by outliers



Output example







2. VALUATION ANALYSIS



Trading comparables

Campbell's trading multiples are nearing 5-year lows, closely aligned with industry peers

Trading comparables summary

| Company Name | Share price | | Valuation (\$b) | | EBITDA | EV / EBITDA | | Price / Earnings | |
|---|-------------|---------|-----------------|--------|----------|-------------|-------|------------------|-------|
| | 7/24/2024 | % 52-wk | Market Cap | EV | % margin | LTM EBITDA | 2024E | LTM | NTM |
|  General Mills | \$65.51 | 84% | \$36.7 | \$49.4 | 21.2% | 11.8x | 11.9x | 15.2x | 14.5x |
|  Kellanova | 57.23 | 84% | 19.8 | 25.6 | 15.2% | 10.7x | 11.5x | 20.8x | 15.8x |
|  CONAGRA BRANDS | 29.86 | 89% | 14.3 | 22.9 | 19.4% | 9.8x | 9.8x | 14.0x | 14.8x |
|  THE J.M. SMUCKER CO | 116.78 | 76% | 12.5 | 20.3 | 23.0% | 10.7x | 10.0x | 16.4x | 11.7x |
|  Hormel Foods | 31.51 | 76% | 17.3 | 18.9 | 10.9% | 14.3x | 13.1x | 21.8x | 19.5x |
| Average | | | | | 17.8% | 11.6x | 11.0x | 17.4x | 15.3x |
| Median | | | | | 19.4% | 10.7x | 10.0x | 16.4x | 14.8x |
|  Campbell's | \$46.47 | 96% | \$13.9 | \$21.0 | 18.7% | 12.5x | 10.9x | 16.3x | 14.8x |

Sources: Bamsec, FactSet as of 7/24/24

8

Advantages and disadvantages of trading comps



1

Market Based

- Based on public market data, reflecting the market's growth and risk expectations, as well as overall sentiment

2

Relativity

- Easily measurable and comparable versus other companies

3

Quick and convenient

- Valuation can be determined on the basis of a few easy-to-calculate inputs

4

Current

- Based on prevailing market data, which can be updated on a daily (or intraday) basis



1

Market based

- Valuation that is completely market-based can be skewed during periods of irrational exuberance or bearishness

2

Absence of relevant comparables

- "Pure play" comparables may be difficult to identify or even non-existent

3

Potential disconnect from cash flow

- Prevailing market conditions may have significant disconnect from a company's projected cash flow generation

4

Company specific issues

- Based on the valuation of other companies, which may fail to capture target-specific strengths, weaknesses, and risks

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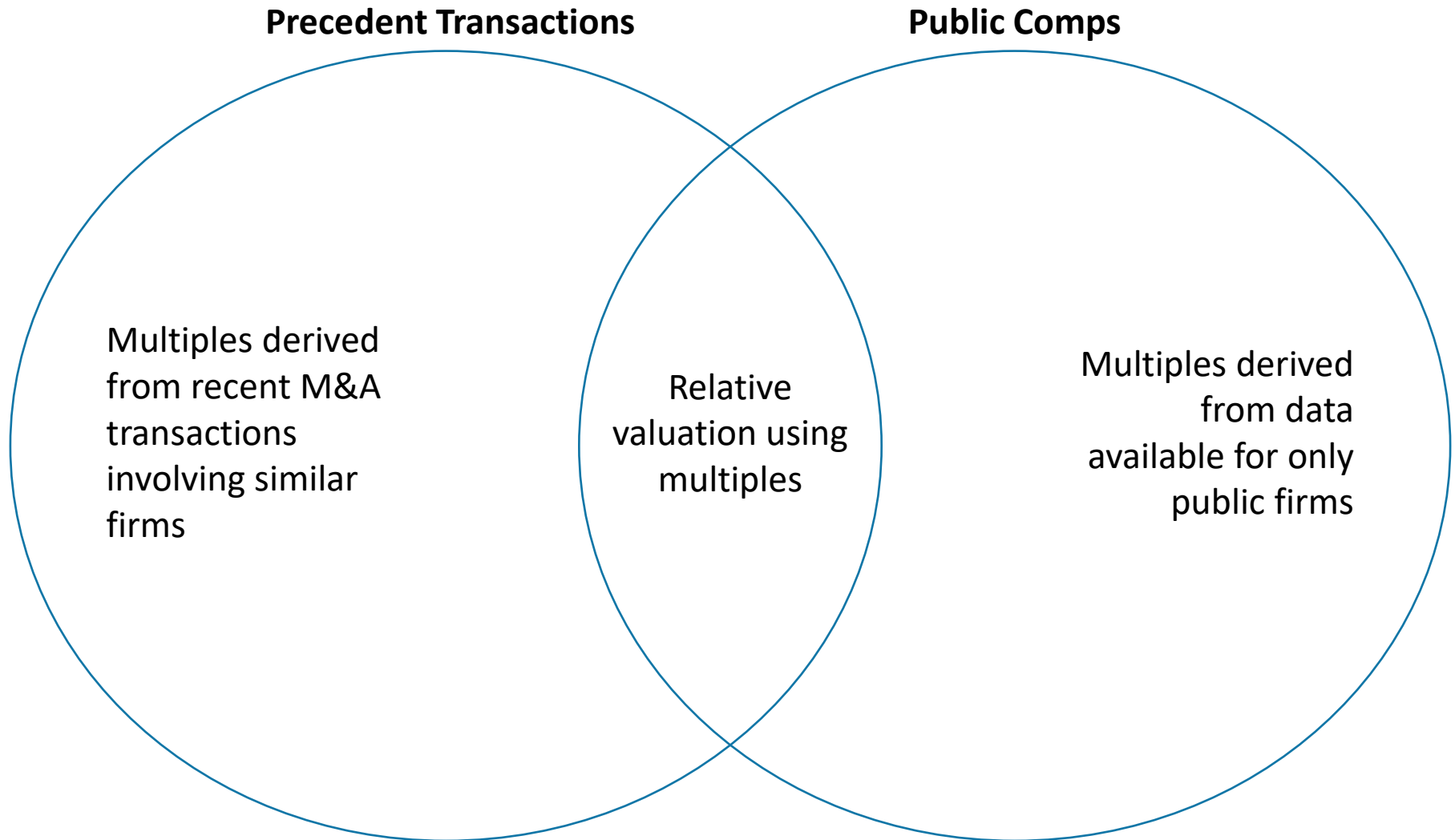
Intrinsic vs Relative Valuation

Trading Comps

Precedent Transactions

Assignments & Attendance Word

Precedent transactions overview



The key difference between public comps and precedent transactions is control premium

- Share price in an acquisition = market value of share + control premium
- Control premium is the price the acquirer pays to take a majority (controlling) stake in the firm being acquired
- Control premium also exists because strategic buyers are able to realize synergies post acquisition – thus enabling a higher purchase price
- Because precedent multiples inherently include a control premium, **they will yield a higher valuation than public comparables**

Common Precedent Transaction Multiples

EV / Revenue

Enterprise Value divided by Revenue

EV / EBITDA

Enterprise Value divided by EBITDA

EV / EBIT

Enterprise Value divided by EBIT

P / E

Equity Value divided by Net Income

Synergies

Strategic acquirers can also absorb the cost of the control premium by realizing synergies



Synergies

Definition:

- **Synergies** are potential cost savings, growth opportunities, lower costs of capital, or other benefits resulting from the combination of two companies
- Expected incremental cash flow and earnings in the future (beyond what the buyer could generate on its own)

Key Themes:

- Prices (and valuation multiples) can be impacted by the buyer's opinion of the probability of achieving potential synergies (timing, size, etc.)
- Most relevant for **strategic buyers** (less for **financial buyers**)
- Sometimes (not always) disclosed, either in absolute \$ or % of the target's revenue

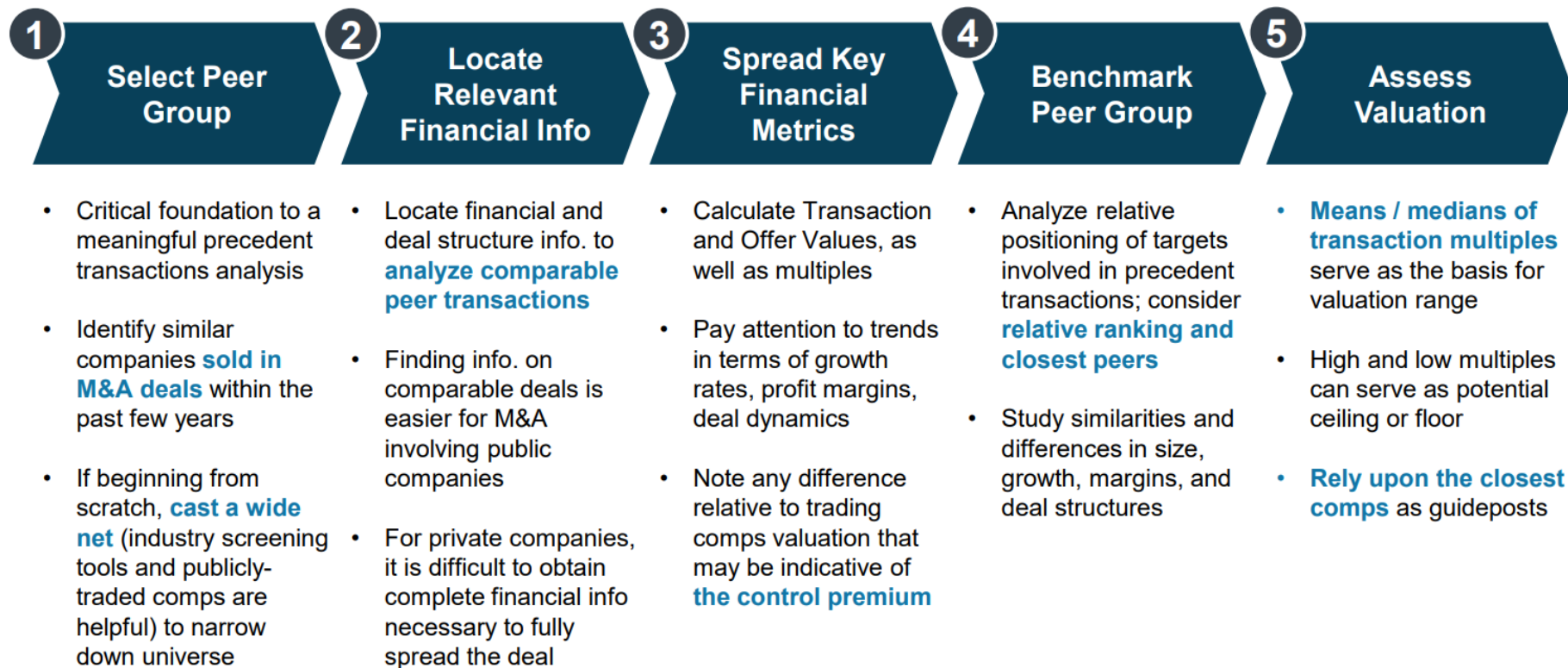
Key Takeaway

Synergies should be compared across precedent transactions (if possible) to provide greater context to each deal

Cost Synergies vs Revenue Synergies

| Cost Synergies | Revenue Synergies |
|--|--|
| (Hard Synergies) <ul style="list-style-type: none">- Consolidation of administrative departments (accounting, finance, HR)- Economies of scale to drive down production costs- Consolidation of brick-and-mortar facilities | (Soft Synergies) <ul style="list-style-type: none">- Cross Selling- Geographic Expansion- Product Diversification- Increased Pricing Power |

Precedent transaction analysis process



The steps above are a guidepost for any financial analyst looking to conduct a precedent transactions analysis

1. Select peer group

| Precedent Comps Universe | | |
|--|---|--|
| Business Characteristics | Financial Characteristics | Transaction Characteristics |
| <ul style="list-style-type: none">▪ Sector▪ Products and Services▪ Customers and End Markets▪ Distribution Channels▪ Geography | <ul style="list-style-type: none">▪ Size▪ Profitability▪ Growth▪ Return on Investment▪ Credit Profile | <ul style="list-style-type: none">▪ Market Conditions▪ Deal Dynamics▪ Strategic vs Financial Buyer▪ Motivations▪ Sale Process and Nature of the Deal▪ Purchase Considerations |

2. Locate relevant financial data

Among the most significant ways in which an investment bank provides economic value in an M&A context is by way of their network with other banks that allows for the obtaining of relevant transaction multiples

Public M&A

Proxy Statement

Summary of the deal

8k

SEC mandated disclosure for special event

10k & 10Q

SEC filings containing LTM financials

Equity Research

May contain additional useful information

Private M&A

Proxy Statement

Summary of deal – required in some cases

S-4

SEC disclosure in case of high-yield debt issuance

Press Releases

Available throughout the internet

Network

Contact other investment banks for deal information

3. Spread key financial metrics

Upon development of the peer group and location of relevant financial information, the analyst will spread key financial information regarding each transaction on an input page in excel

Precedent Transactions - U.S.-Based Steel Manufacturer Sellers with Transaction Enterprise Values Above \$500 Million USD

Announced Between August 1st, 2011, and July 31st, 2021

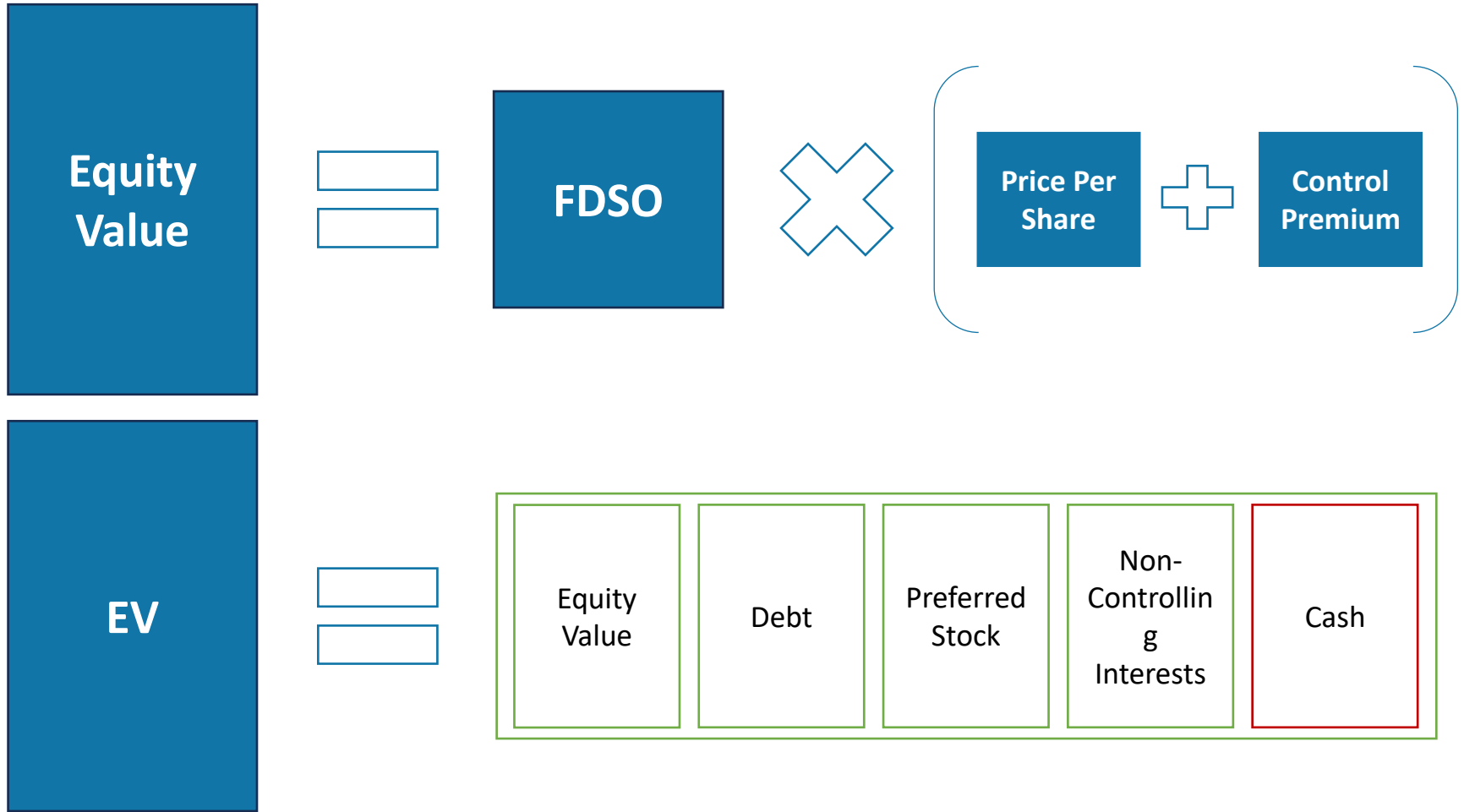
(\$ USD in Millions Except Per Share Amounts in USD as Stated)

(Only >= 50% Acquisitions; Asset Sales and Divestitures Also Included)

| Steel Dynamics Inc. - Comparable M&A Transactions: | | | | | Valuation Multiples | | | | |
|--|---|-------------------|---------------------|------------------------------|---------------------|------------|-------------------|------------------|--|
| Acquirer Name | Target Name | Announcement Date | Percentage Acquired | Transaction Enterprise Value | LTM Revenue | LTM EBITDA | TEV / LTM Revenue | TEV / LTM EBITDA | |
| United States Steel Corporation | Big River Steel LLC | 2020-12-08 | 50.1% | 1,395.1 | 933.8 | 54.8 | 1.5 x | 25.5 x | |
| Cleveland-Cliffs Inc. | ArcelorMittal USA LLC | 2020-09-28 | 100.0% | 3,288.7 | 10,169.0 | 254.0 | 0.3 x | 12.9 x | |
| Cleveland-Cliffs Inc. | AK Steel Holding Corporation | 2019-12-03 | 100.0% | 3,331.3 | 6,590.8 | 595.2 | 0.5 x | 5.6 x | |
| Tenaris S.A. | IPSCO Tubulars Inc. | 2019-03-22 | 100.0% | 1,106.6 | 1,401.6 | 165.6 | 0.8 x | 6.7 x | |
| CMC Steel Fabricators, Inc. | TAMCO Steel, Inc. and Gerdau Reinforcing Steel West and f | 2018-01-02 | 100.0% | 701.2 | N/A | N/A | N/A | N/A | |
| Forterra, Inc. | United States Pipe and Foundry Company, LLC | 2016-04-15 | 100.0% | 924.7 | 508.6 | 73.0 | 1.8 x | 12.7 x | |
| BlueScope Steel Limited | North Star BlueScope Steel, LLC | 2015-10-26 | 50.0% | 1,481.0 | 1,167.7 | 185.9 | 1.3 x | 8.0 x | |
| Nucor Corporation | Gallatin Steel Company | 2014-09-15 | 100.0% | 770.0 | N/A | 120.3 | N/A | 6.4 x | |
| Hitachi Metals, Ltd. | Waupaca Foundry, Inc. | 2014-08-19 | 100.0% | 1,337.8 | 1,735.0 | 161.7 | 0.8 x | 8.3 x | |
| AK Steel Corporation | Severstal Dearborn, Inc. | 2014-07-21 | 100.0% | 707.0 | 2,018.1 | 72.0 | 0.4 x | 9.8 x | |
| Steel Dynamics, Inc. | Severstal Columbus, LLC | 2014-07-21 | 100.0% | 1,625.0 | 1,938.6 | 144.7 | 0.8 x | 11.2 x | |
| Trinity Industries, Inc. | Thomas & Betts International, LLC, Meyer Steel Structures | 2014-06-27 | 100.0% | 600.0 | 199.8 | 31.4 | 3.0 x | 19.1 x | |
| ArcelorMittal; Nippon Steel Corporation | ThyssenKrupp Steel USA, LLC | 2013-11-29 | 100.0% | 1,550.0 | 1,662.1 | 80.2 | 0.9 x | 19.3 x | |
| Reliance Steel & Aluminum Co. | Metals USA Holdings Corp. | 2013-02-06 | 100.0% | 1,216.5 | 1,983.6 | 143.3 | 0.6 x | 8.5 x | |
| Nucor Corporation | Skyline Steel, LLC | 2012-05-17 | 100.0% | 684.0 | 873.0 | N/A | 0.8 x | N/A | |
| | Maximum | | | \$ 3,331.3 | \$ 10,169.0 | \$ 595.2 | 3.0 x | 25.5 x | |
| | 75th Percentile | | | 1,515.5 | 1,983.6 | 165.6 | 1.3 x | 12.9 x | |
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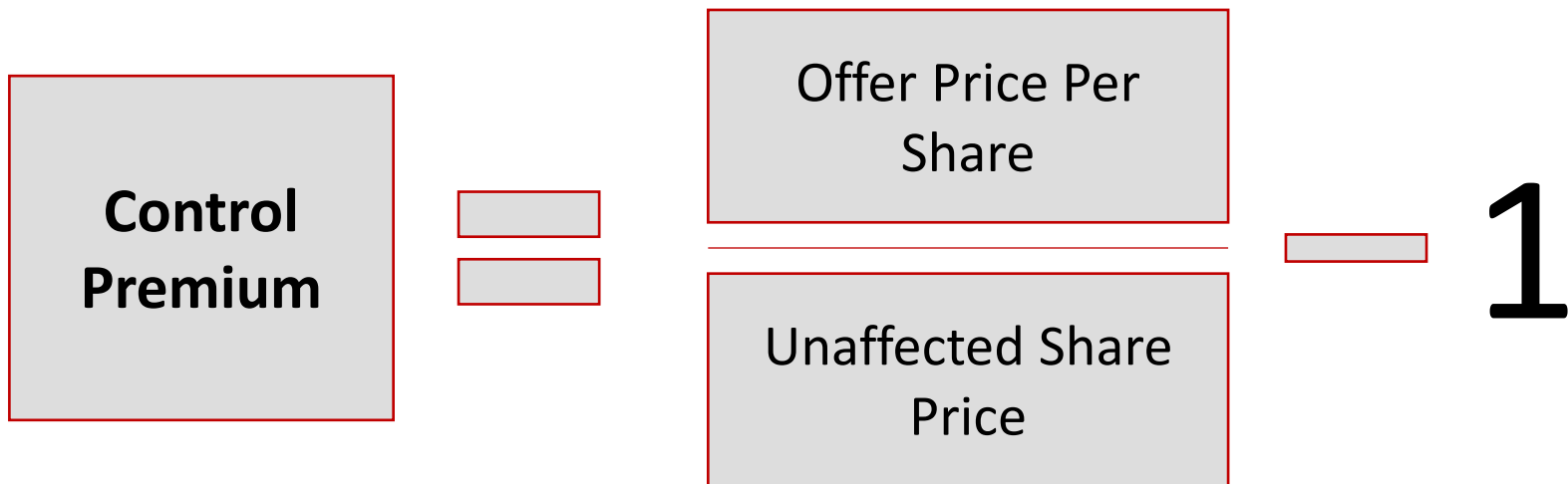
3. Spread key financial metrics – M&A Nuances

In the case of an M&A valuation multiple, both equity value and enterprise value will be treated slightly differently than if we were simply using comparable companies' analysis to value a firm



3. Spread key financial metrics – Control Premium

An essential part of spreading key financial metrics is the determination of the control premium paid in the acquisition – this is done by comparing the “unaffected share price” with the offer price per share


$$\text{Control Premium} = \frac{\text{Offer Price Per Share}}{\text{Unaffected Share Price}} - 1$$

4. Benchmark peer group

4

Benchmark Peer Group

- Analyze relative positioning of targets involved in precedent transactions; consider **relative ranking and closest peers**
- Study similarities and differences in size, growth, margins, and deal structures

Precedent Transactions - U.S.-Based Steel Manufacturer Sellers with Transaction Enterprise Values Above \$500 Million USD

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5. Assess valuation

5

Assess Valuation

- Means / medians of transaction multiples serve as the basis for valuation range
- Rely upon the closest comps as guideposts
- High and low multiples can serve as potential ceiling or floor

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Advantages and disadvantages of precedent transactions



1

Market Based

- Based on actual acquisition multiples and premiums paid for similar companies

2

Current

- Recent transactions tend to reflect prevailing M&A, capital markets, and general economic conditions

3

Relativity

- Provides straightforward reference points across sectors and time periods

4

Simplicity

- Key multiples for a few selected transactions can anchor valuation

5

Objectivity

- Precedent-based and, therefore, avoids making assumptions about a company's future performance



1

Market Based

- Multiples may be skewed depending on the economic environment at the time of the transaction

2

Time lag

- May not be truly reflective of prevailing market conditions

3

Existence of comparable acquisitions

- In some cases it may be difficult to find a robust universe of precedent transactions

4

Availability of information

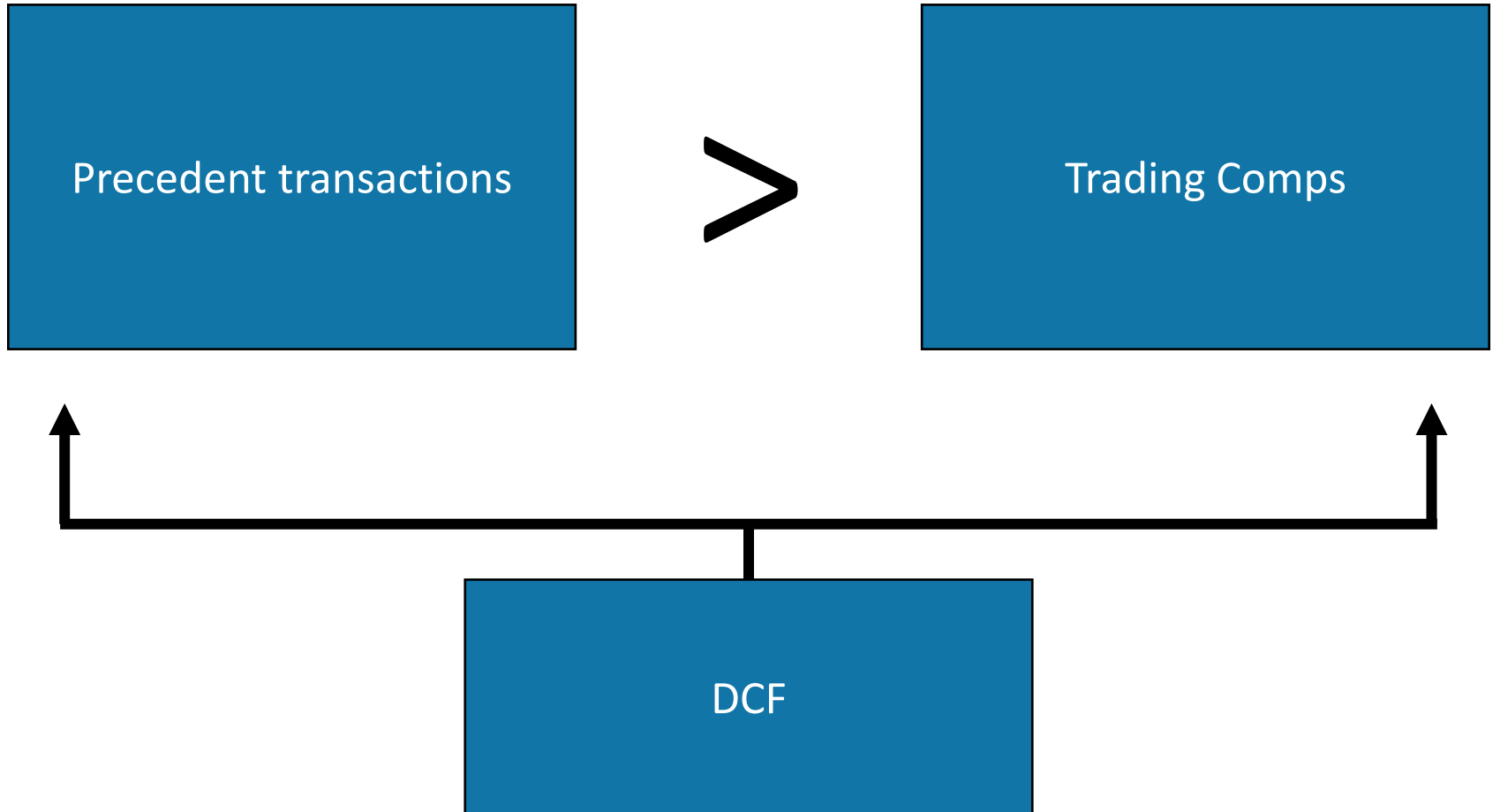
- Information may be insufficient to determine transaction multiples for many comparable acquisitions

5

Acquirer's basis for valuation

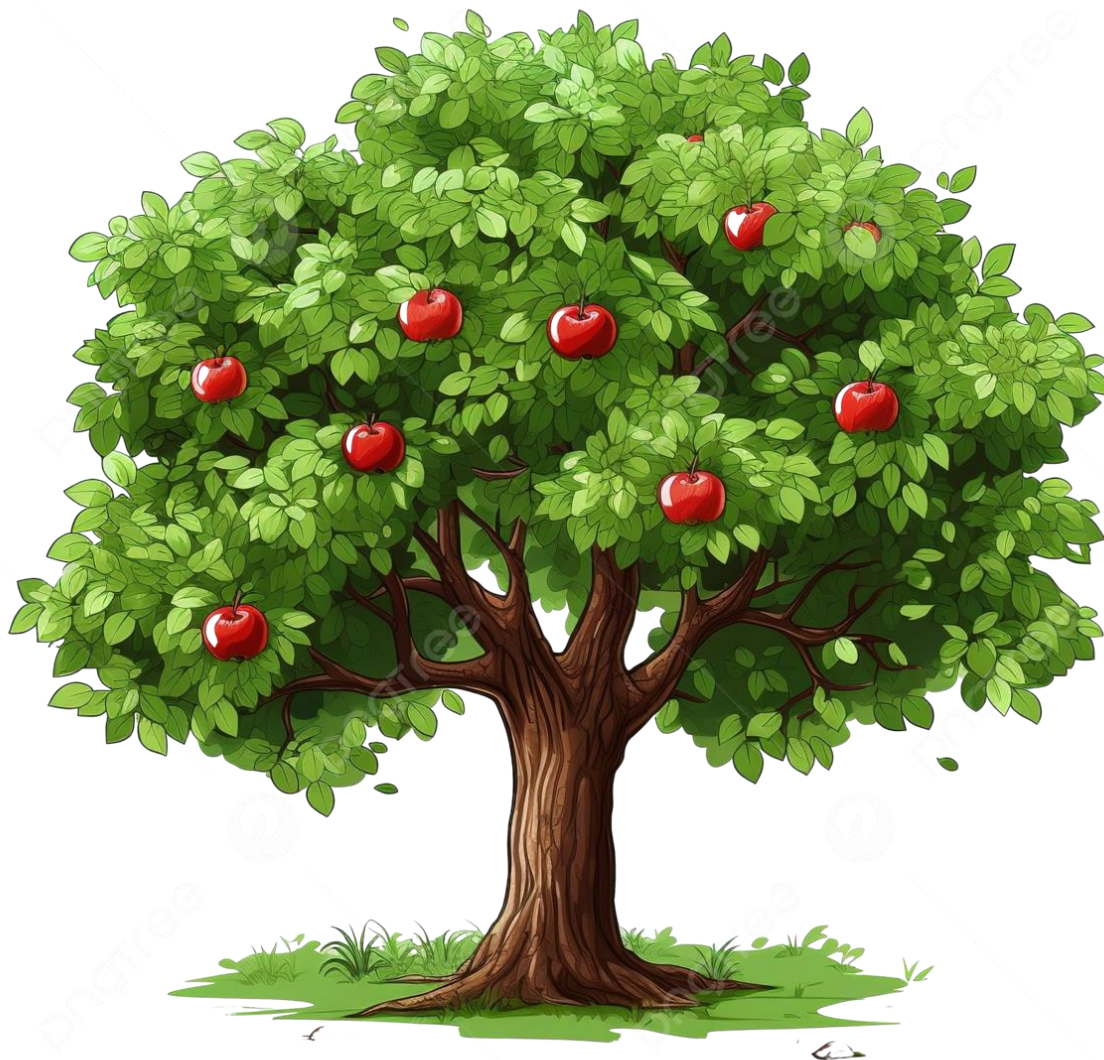
- Multiple paid by the buyer may be based on expectations governing the target's future financial performance

Ranking the 3 major valuation techniques



How would you value an apple tree?

1. Discounting all of the future cash it will generate
2. How much are similar apple trees currently trading for?
3. How much were apple trees sold for during the last two years?



Putting it all together – Football field

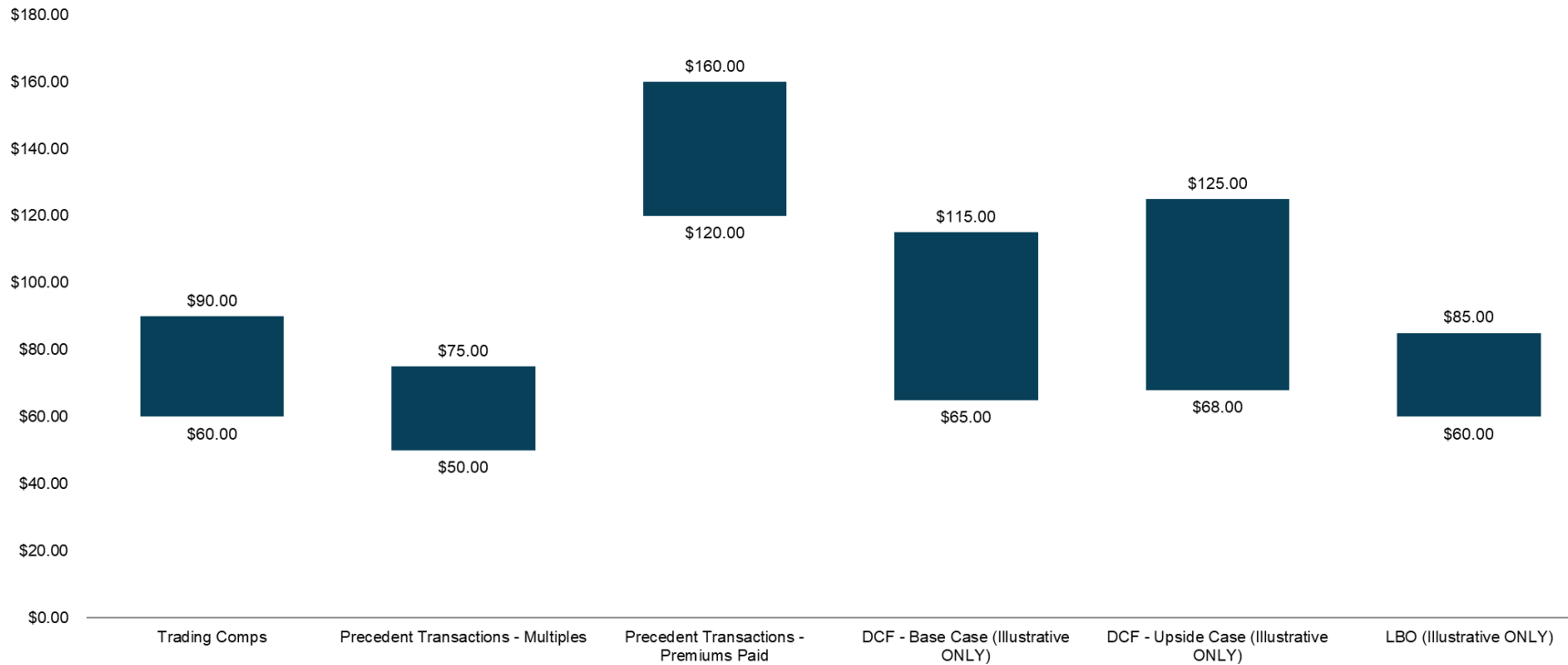


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Trading Comps

Precedent Transactions

Assignments & Attendance Word

Assignments this week

- Relative valuation / DCF quiz due Saturday night at 11:59pm
- Resume submission due tonight at 11:59pm

Attendance word: **AI Bubble**

