EQUITY VALUATION METHODS: A PRACTITIONER'S GUIDE

Meridian Capital Research | Analyst Training Series

SYNTHETIC DOCUMENT — FOR DEMONSTRATION PURPOSES

INTRODUCTION

Valuing a company is as much art as science. No single method produces a definitive answer; instead, skilled analysts triangulate across multiple methodologies, understand why they diverge, and form a judgment about which inputs and assumptions are most credible for the specific company and context.

This guide covers the four primary equity valuation frameworks used in investment banking, equity research, and buy-side analysis: Discounted Cash Flow (DCF), Comparable Company Analysis (Comps), Precedent Transaction Analysis, and Sum-of-the-Parts (SOTP). A section on AI-era valuation adjustments is included given the structural changes in how technology companies are now assessed.

METHOD 1: DISCOUNTED CASH FLOW (DCF) ANALYSIS

1.1 Conceptual Basis

DCF analysis is theoretically the most rigorous valuation method. It derives value entirely from a company's own fundamentals: its ability to generate free cash flow and the risk profile of those cash flows. The core premise is that a dollar today is worth more than a dollar in the future — and that the appropriate present value of future cash flows depends on the discount rate applied.

DCF is particularly suited to mature, stable businesses with predictable cash flow profiles. It is less reliable for early-stage companies (high uncertainty in projections) and highly cyclical businesses (cash flows are difficult to normalize).

1.2 The DCF Formula

Enterprise Value = Σ [FCF_t / (1 + WACC)^t] + Terminal Value / (1 + WACC)^n

Where:
- FCF_t = Free Cash Flow in year t
- WACC = Weighted Average Cost of Capital (the discount rate)
- Terminal Value = FCF_n × (1 + g) / (WACC − g), where g = perpetuity growth rate

1.3 Weighted Average Cost of Capital (WACC)

WACC represents the blended required return of all capital providers — both debt and equity. It is calculated as:

$$WACC = (E/V \times Re) + (D/V \times Rd \times (1 - \text{Tax Rate}))$$

Where:
- E = Market value of equity
- D = Market value of debt
- V = E + D (total capital)
- Re = Cost of equity (typically calculated using CAPM)
- Rd = Cost of debt (pre-tax yield on outstanding debt)

Cost of Equity via CAPM: $Re = Rf + \beta \times (Rm - Rf)$
- Rf = Risk-free rate (typically the 10-year US Treasury yield)
- β = Beta, measuring the stock's sensitivity to market movements
- (Rm − Rf) = Equity risk premium (historically 4–6% for US equities)

For large-cap technology companies in 2023, WACCs typically ranged from 8–12%, reflecting rising risk-free rates. A WACC of 10% for a technology company is common in current market conditions.

1.4 Terminal Value Sensitivity

Terminal value typically represents 60–80% of total DCF value for growth companies. This concentration makes DCF valuations highly sensitive to terminal growth rate assumptions. The difference between a 2.5% and 3.5% terminal growth rate, applied to a company with $50 billion in year-10 FCF at a 10% WACC, can represent over $150 billion in enterprise value — illustrating why small assumption changes drive enormous valuation swings.

1.5 Limitations

The DCF method is "garbage in, garbage out." Projecting free cash flows 5–10 years for a technology company requires assumptions about competitive dynamics, market growth, margin evolution, and capital intensity that are inherently uncertain. Analysts should stress-test DCF outputs across multiple scenarios (bear, base, bull) and be skeptical of single-point estimates.

METHOD 2: COMPARABLE COMPANY ANALYSIS (COMPS)

2.1 Conceptual Basis

Comparable company analysis (or "trading comps") values a company based on how similar publicly traded companies are currently valued by the market. The underlying logic is that companies with similar business models, growth profiles, and risk characteristics should trade at similar multiples.

2.2 Process

Step 1 — Select the peer group: Identify 8–15 publicly traded companies that are genuinely comparable on dimensions including: industry/sub-industry, revenue growth rate, margin profile, business model (subscription vs. transactional), and geographic

exposure.

Step 2 — Calculate trading multiples for each peer:
- EV/Revenue (NTM): Enterprise Value divided by next twelve months estimated revenue
- EV/EBITDA (NTM): Enterprise Value divided by next twelve months estimated EBITDA
- P/E (NTM): Market capitalization divided by next twelve months estimated earnings per share

Step 3 — Apply peer multiples to the subject company: Select the appropriate point in the range (median, 25th percentile, 75th percentile) based on where the subject company's quality metrics rank within the peer group.

2.3 Relevant Multiples by Technology Sub-Sector

Enterprise SaaS (high growth, recurring revenue):
- EV/NTM Revenue: 8–20x (varies significantly with growth rate and profitability)
- Rule of 40 (Revenue Growth % + FCF Margin %) > 40 commands premium multiples
- EV/NTM EBITDA: Less commonly used given many SaaS companies prioritize growth over current profitability

Semiconductors:
- EV/NTM Revenue: 5–15x (Nvidia commanded >25x at peak AI enthusiasm)
- EV/NTM EBITDA: 15–30x for leading edge; lower for commodity memory

Mega-cap technology (Apple, Microsoft, Alphabet, Amazon):
- P/E (NTM): 22–35x
- EV/FCF: 25–45x (preferred to P/E given buyback effects on EPS)

2.4 Limitations

Comps analysis assumes the market is correctly pricing comparable companies — an assumption that breaks down in bubble or trough conditions. In 2021, applying SaaS multiples of 30–50x revenue produced valuations that proved entirely disconnected from fundamental value. In 2022–2023, using trough multiples may understate intrinsic value. Comps are best used as a market-context check rather than a primary valuation tool.

METHOD 3: PRECEDENT TRANSACTION ANALYSIS

3.1 Conceptual Basis

Precedent transaction analysis values a company based on the prices paid to acquire comparable companies in past M&A transactions. Acquisition prices typically include a "control premium" — the additional amount a buyer pays above the standalone market value to gain control of a company. Control premiums for technology companies have historically averaged 20–40%.

3.2 Relevant Data Points from 2022–2023

- Adobe/Figma: ~50x NTM revenue (subsequently terminated — considered an outlier)
- Microsoft/Activision Blizzard: ~6x NTM revenue, ~23x NTM EBITDA
- Broadcom/VMware: ~7x NTM revenue, ~18x NTM EBITDA
- Cisco/Splunk: ~7x NTM revenue

3.3 Limitations

Transaction comps become stale quickly — deals completed in 2020–2021 at peak valuations are not relevant benchmarks for current transactions. The dataset is also thin: there are relatively few truly comparable precedent transactions in most technology sub-sectors. Highly strategic acquisitions (where a buyer pays a significant synergy premium) can distort the dataset.

METHOD 4: SUM-OF-THE-PARTS (SOTP) ANALYSIS

4.1 Conceptual Basis

SOTP analysis is applied to conglomerates or diversified companies where different business segments have materially different growth profiles, margin structures, and appropriate valuation multiples. Rather than applying a single multiple to consolidated financials, SOTP values each segment independently and sums the results.

4.2 Application to Major Technology Companies

Apple SOTP Example:
- iPhone segment: $200.6B revenue × 3.0x EV/Revenue = ~$600B
- Services segment: $85.2B revenue × 10.0x EV/Revenue = ~$850B
- Mac + iPad + Wearables: $97.5B revenue × 2.0x EV/Revenue = ~$195B
- Net cash: +$50B
- Implied Enterprise Value: ~$1,695B
- Note: This illustrative SOTP roughly approximates Apple's actual market cap, suggesting the market already applies an implicit SOTP framework

Alphabet SOTP Example:
- Google Search & Other: $175B revenue × 5.0x EV/Revenue = ~$875B
- Google Cloud: $33B revenue × 8.0x EV/Revenue = ~$264B
- YouTube: $31.5B revenue × 6.0x EV/Revenue = ~$189B
- Other Bets (Waymo, DeepMind, Verily, etc.): Option value, $50–100B
- Net cash: ~$120B
- Implied Enterprise Value: ~$1,498–1,548B

SOTP analysis reveals that Alphabet's non-search businesses represent meaningful value — and that investors effectively "get" Google Cloud and YouTube at low marginal cost when buying Alphabet stock at Search-implied valuations.

SECTION 5: AI-ERA VALUATION CONSIDERATIONS

5.1 AI Revenue Optionality

Generative AI capabilities are creating new revenue streams that are difficult to value with traditional methods. Microsoft's Copilot pricing ($30/user/month premium over base Microsoft 365) applied to its 400 million commercial seats represents up to $144 billion in incremental annual revenue — a figure that is plausible but not guaranteed. Markets are embedding partial probability of AI monetization into current valuations.

5.2 Infrastructure Capex vs. Return on Investment

The unprecedented capital expenditure on AI infrastructure — estimated at $150–200 billion across major technology companies in 2024 — creates a new analytical challenge: when and at what return will this investment monetize? DCF models that incorporate AI capex without corresponding AI revenue increases will systematically undervalue the opportunity; those that include speculative AI revenue without adequate discount rates will overvalue it.

5.3 New Metrics Gaining Relevance

- AI Revenue Contribution: Revenue directly attributable to AI features (difficult to disaggregate)
- Model Training Cost: Proxy for competitive position — companies that can train more capable models at lower cost have structural advantages
- Token Economics: For companies selling AI inference as a service, revenue per token and cost per token are emerging metrics
- Agent Completion Rate: For agentic AI products, the percentage of multi-step tasks completed without human intervention

CONCLUSION: THE FOOTBALL FIELD

Valuation outputs are best presented as a range — often visualized in a "football field" chart showing the implied equity value range from each methodology. When methods converge, confidence increases. When they diverge sharply, the analyst should understand why: is it a temporary market mispricing (comps too depressed), a methodological artifact (terminal value dominance in DCF), or a genuine uncertainty about the business's future?

The goal of valuation is not a single number but a structured framework for thinking about what an asset is worth and why — and what would have to be true for the optimistic and pessimistic cases to materialize.

END OF GUIDE