Learning Material: Relative Valuation

1. Introduction to Relative Valuation

1.1 What Is Relative Valuation?

Relative valuation is a valuation approach that estimates a company's value by **comparing it with similar companies** using standardized valuation ratios, commonly known as **multiples**. Instead of estimating intrinsic value from projected cash flows, relative valuation relies on how the **market prices comparable firms**.

In practice, relative valuation is widely used by:

- Equity analysts
- Investment bankers
- Private equity investors
- Corporate finance professionals

This popularity stems from its **simplicity, speed, and market anchoring**. When applied carefully, relative valuation provides a powerful benchmark for understanding how a company is priced relative to peers.

1.2 Relative Valuation vs Intrinsic Valuation

Valuation approaches can be broadly classified into:

- **Intrinsic valuation** (e.g., DCF), which estimates value based on fundamentals and future cash flows.
- **Relative valuation**, which infers value from observed market prices of similar firms.

Relative valuation does not claim to find a "true" value. Instead, it answers a different question:

How is this company priced relative to comparable companies in the market?

Both approaches are complementary. Relative valuation is particularly useful when intrinsic valuation inputs are highly uncertain or when market comparables are abundant and reliable.

1.3 When Relative Valuation Is Most Appropriate

Relative valuation is especially useful in situations where:

- Firms operate in **mature and stable industries**

- Reliable peer data is available
- Cash flow forecasts are difficult or unreliable
- Market sentiment plays a significant role

Industries such as FMCG, pharmaceuticals, IT services, banking, and manufacturing frequently rely on relative valuation as a primary valuation tool.

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2. Comparable Companies Analysis (CCA): Conceptual Foundations

2.1 Meaning of Comparable Companies

Comparable companies are firms that share similar:

- Industry classification
- Business models
- Revenue drivers
- Cost structures
- Risk profiles

The underlying assumption is that **similar businesses should trade at similar valuation multiples**, after adjusting for differences in growth, profitability, and risk.

2.2 Importance of Peer Selection

Peer selection is the **most critical judgment step** in relative valuation. Even sophisticated models fail if peers are poorly chosen.

Key considerations include:

- Industry segment (not just broad industry)
- Scale of operations
- Growth rates
- Margin profiles
- Capital intensity

A narrow peer group improves comparability but reduces sample size. A broad peer group increases robustness but may dilute comparability. Analysts must strike a balance.

2.3 Role of Peer Statistics

Once peers are selected, valuation multiples are summarized using statistics such as:

- Average
- Median
- Quartiles

The **median multiple** is often preferred because it:

- Reduces the influence of extreme outliers
- Better reflects the "typical" firm

This statistical discipline improves the credibility of valuation conclusions.

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3. Understanding Valuation Multiples

3.1 What Is a Valuation Multiple?

A valuation multiple expresses the relationship between:

- **Value** (enterprise value or equity value), and
- A **financial performance metric** (revenue, EBITDA, earnings, book value)

General structure:

Multiple = Value ÷ Performance Metric

Multiples embed market expectations about:

- Growth
- Profitability
- Risk
- Capital structure

3.2 Why Multiples Are Informative

Multiples act as **compressed summaries of market expectations**. A high multiple typically reflects expectations of strong growth, high margins, or low risk, while a low multiple may indicate the opposite.

However, multiples are **not standalone measures**. They must always be interpreted in the context of underlying fundamentals.

3.3 Classification of Valuation Multiples

Valuation multiples fall into two broad categories:

- **Enterprise value–based multiples**
- **Equity (price)–based multiples**

This distinction is crucial because each category answers a **different valuation question**.

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4. Enterprise Value–Based Multiples

4.1 Concept of Enterprise Value (EV)

Enterprise value represents the **total value of the firm's operating assets**, independent of how those assets are financed.

Conceptually:

- EV reflects value available to **all capital providers** (debt and equity).
- It neutralizes capital structure differences across firms.

This makes EV particularly useful when comparing firms with different leverage levels.

4.2 EV/Revenue Multiple

The EV/Revenue multiple measures how much investors are willing to pay for each unit of revenue generated.

This multiple is particularly useful when:

- Firms are early-stage or low-margin
- EBITDA or earnings are volatile
- Revenue is a more stable metric

However, EV/Revenue ignores profitability differences and must be interpreted carefully.

4.3 EV/EBITDA Multiple

EV/EBITDA is one of the most widely used valuation multiples in practice.

Reasons for its popularity include:

- EBITDA approximates operating cash flow

- It excludes financing and accounting distortions
- It facilitates cross-company comparison

EV/EBITDA is commonly used in:

- M&A transactions
- Private equity buyouts
- Industry benchmarking

4.4 Interpreting EV-Based Multiples

A higher EV/EBITDA multiple generally reflects:

- Higher expected growth
- Stronger margins
- Lower business risk

Comparing EV/Revenue and EV/EBITDA together helps analysts distinguish **margin-driven differences** from revenue-driven ones.

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5. Market Price–Based (Equity) Multiples

5.1 Concept of Equity Value and Share Price

Equity value represents the value attributable to **equity shareholders only**. Price-based multiples focus on value **per share**, making them intuitive and widely used by investors.

Unlike EV-based multiples, equity multiples are influenced by:

- Capital structure
- Financial leverage
- Interest and tax effects

5.2 Price-to-Earnings (P/E) Multiple

The P/E multiple relates share price to earnings per share (EPS).

It reflects:

- Expected earnings growth
- Earnings quality

- Risk perception

While widely used, P/E has limitations:

- It becomes meaningless for firms with negative earnings
- It is sensitive to accounting policies

5.3 Price-to-Book Value (P/BV) Multiple

The P/BV multiple compares market price with accounting book value per share.

It is particularly relevant for:

- Asset-intensive businesses
- Manufacturing firms
- Financial institutions

A P/BV greater than one often indicates that the firm is earning returns above its cost of capital.

5.4 Interpreting Price-Based Multiples

Price-based multiples reflect **shareholder-centric valuation**. Differences between EV-based and price-based valuations often arise due to leverage, tax effects, or capital intensity.

Analysts must understand why such differences occur rather than mechanically averaging results.

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6. Relationship Between Multiples and Fundamentals

6.1 Growth

Growth expectations are a primary driver of valuation multiples. Firms expected to grow faster typically command higher multiples.

However, expected growth must be:

- Sustainable
- Profitable
- Risk-adjusted

6.2 Profitability

Higher margins generally justify higher multiples because:

- More cash is generated per unit of revenue
- Operating leverage improves value creation

Differences in EBITDA margins often explain dispersion in EV/EBITDA multiples.

6.3 Risk and Capital Structure

Risk affects valuation through:

- Earnings volatility
- Business cyclicality
- Financial leverage

Higher leverage increases equity risk and can distort price-based multiples, making EV-based multiples preferable for comparison.

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7. Step-by-Step Logic of Relative Valuation

7.1 Overview of the Valuation Workflow

The conceptual workflow of relative valuation involves:

1. Identifying comparable firms
2. Computing valuation multiples
3. Deriving peer benchmarks
4. Applying benchmarks to the target company

Each step requires judgment and consistency.

7.2 Valuation Using EV-Based Multiples

EV-based valuation follows this logic:

- Operating metric × EV multiple → implied EV
- Implied EV – net debt → equity value

This isolates operating performance from financing effects.

7.3 Valuation Using Price-Based Multiples

Price-based valuation follows:

- Per-share metric × price multiple → implied share price
- Implied share price × shares outstanding → equity value

This approach directly reflects shareholder valuation.

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8. Multiple-Based Valuation Outputs and Ranges

8.1 Why Valuation Produces Ranges

Different multiples capture different aspects of performance. As a result, relative valuation produces a **range of values**, not a single point estimate.

This range reflects:

- Methodological differences
- Fundamental drivers
- Market perceptions

8.2 Comparing EV-Based and Price-Based Results

Differences between EV-based and price-based valuations provide insight into:

- Capital structure effects
- Profitability differences
- Accounting impacts

Such differences are analytically informative, not errors.

8.3 Professional Interpretation of Results

Professional valuation emphasizes:

- Consistency
- Context
- Judgment

Rather than averaging mechanically, analysts assess which multiples are most relevant for the firm and industry.

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9. Common Conceptual Errors in Relative Valuation

9.1 Errors in Peer Selection

Common mistakes include:

- Mixing fundamentally different firms
- Ignoring scale or margin differences
- Over-reliance on convenience samples

9.2 Errors in Multiple Interpretation

Mistakes include:

- Treating multiples as absolute indicators
- Ignoring negative or volatile earnings
- Comparing incompatible multiples

9.3 Errors in Valuation Logic

Frequent logical errors involve:

- Mixing EV and equity concepts
- Incorrect debt adjustments
- Double-counting value components

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10. Excel Logic Underlying Relative Valuation Models

10.1 Role of Excel in Relative Valuation

Excel enables:

- Structured calculations
- Replicability
- Transparency

However, Excel does not replace judgment. It implements logic—it does not create it.

10.2 Structure of a Typical Relative Valuation Model

Most relative valuation models contain:

- Input section
- Peer multiples section
- EV-based valuation block
- Price-based valuation block
- Output and interpretation section

Understanding this structure helps students follow model logic.

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11. Excel Functions Commonly Used in Relative Valuation

11.1 Arithmetic Functions

Basic arithmetic operations are used to:

- Scale values
- Convert per-share to firm-level metrics
- Adjust for debt

11.2 Statistical Functions

Statistical functions such as:

- AVERAGE
- MEDIAN
- QUARTILE

are used to derive peer benchmarks and reduce outlier influence.

11.3 Importance of Statistical Robustness

Using medians and quartiles improves:

- Reliability
- Defensibility
- Professional credibility

12. Conceptual Readiness Checklist (Before Excel Lab)

Students should be able to:

- Explain EV vs equity value
- Justify multiple selection
- Interpret valuation differences
- Explain results without Excel formulas

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13. Transition to Excel-Based Relative Valuation

13.1 Mapping Concepts to Excel Templates

In Excel:

- Inputs represent fundamentals
- Multiples represent market pricing
- Formulas implement valuation logic

Conceptual clarity ensures correct execution.

13.2 Expectations from the Excel Session

Students are expected to:

- Follow valuation logic strictly
- Avoid shortcuts
- Focus on interpretation, not just computation

End Note to Students

Relative valuation is a **market-based discipline** grounded in comparison and judgment. Excel will calculate values, but **your understanding will determine their meaning**.