Essential Financial Ratios You Need to Know

Corporate Finance Institute

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Your Coaches

Scott Powell

Chief Content Officer, CFI

Scott is Co-Founder and Chief Content Officer of CFI Education. Now based in Vancouver, Scott spent a significant portion of his career in London, New York and Hong Kong. Scott has a passion for teaching with over 25 years of experience designing and delivering customized learning solutions for firms in the financial services industry including JP Morgan, Deutsche Bank, Bank of America Merrill Lynch, Credit Suisse, and HSBC, to name but a few.

Duncan McKeen

EVP, Financial Modeling, CFI

Since 2014, Duncan has been focused on designing courses and teaching financial modeling to employees working in accounting, valuation, investment banking, equity research, and private equity. He also has extensive experience providing consulting services on financial modeling to large corporations and institutions.

Financial Analysis Practical Tips

Critical Tips for Effective Financial Analysis

- Gather a minimum of five years of historic financial performance to better identify trends over time

- Make your calculations in Excel transparent so that you can trace from financial statements to ratios

- Need to identify an appropriate peer group, which is harder than it looks, as it is hard to find two companies that are similar

- Keep adjustments of ratios to a minimum, as there is more room for error to creep in

- Averages are typically more academically sound, but in practice, virtually everyone uses closing balances

Peer Group Benchmarking Checklist

Business Characteristics

- Industry/Sector (Sub-sector)
- Geography
- Product/Services
- Customers
- Distribution network

Finance Characteristics

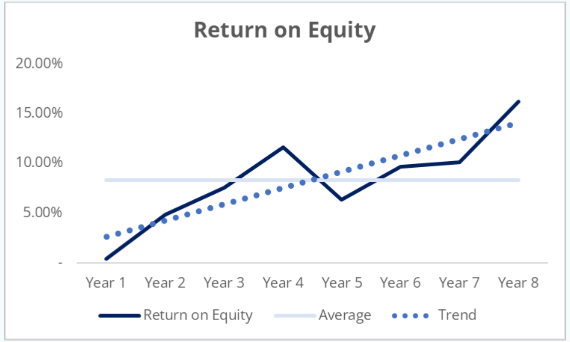
- Size
- Growth
- Margins
- Seasonality/Cyclicality
- Leverage/Credit rating

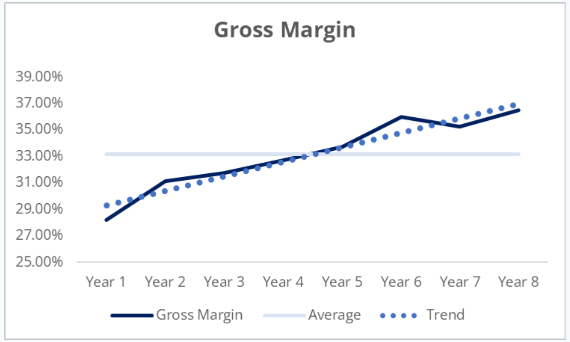
The Benefit of Visualizing Trends - Before

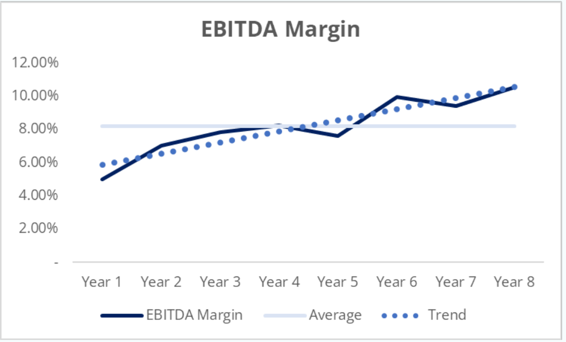
Profitability and Return Ratios

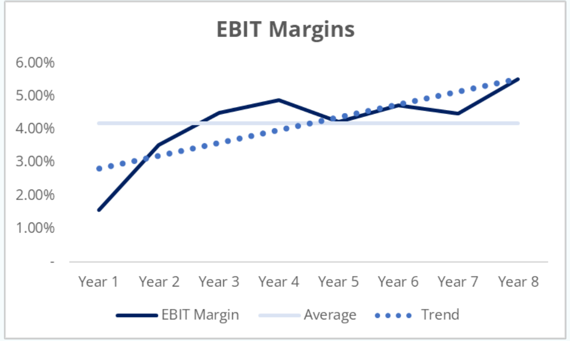
All figures in USD thousands unless stated	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Average
Return on Equity	0.41%	4.81%	7.56%	11.59%	6.32%	9.62%	10.08%	16.20%	8.32%
Average	8.32%	8.32%	8.32%	8.32%	8.32%	8.32%	8.32%	8.32%	
Gross Margin	28.21%	31.15%	31.72%	32.72%	33.73%	35.97%	35.26%	36.48%	33.15%
Average	33.15%	33.15%	33.15%	33.15%	33.15%	33.15%	33.15%	33.15%	
EBITDA Margin	5.01%	7.03%	7.84%	8.26%	7.63%	9.98%	9.41%	10.53%	8.21%
Average	8.21%	8.21%	8.21%	8.21%	8.21%	8.21%	8.21%	8.21%	

The Benefit of Visualizing Trends - After



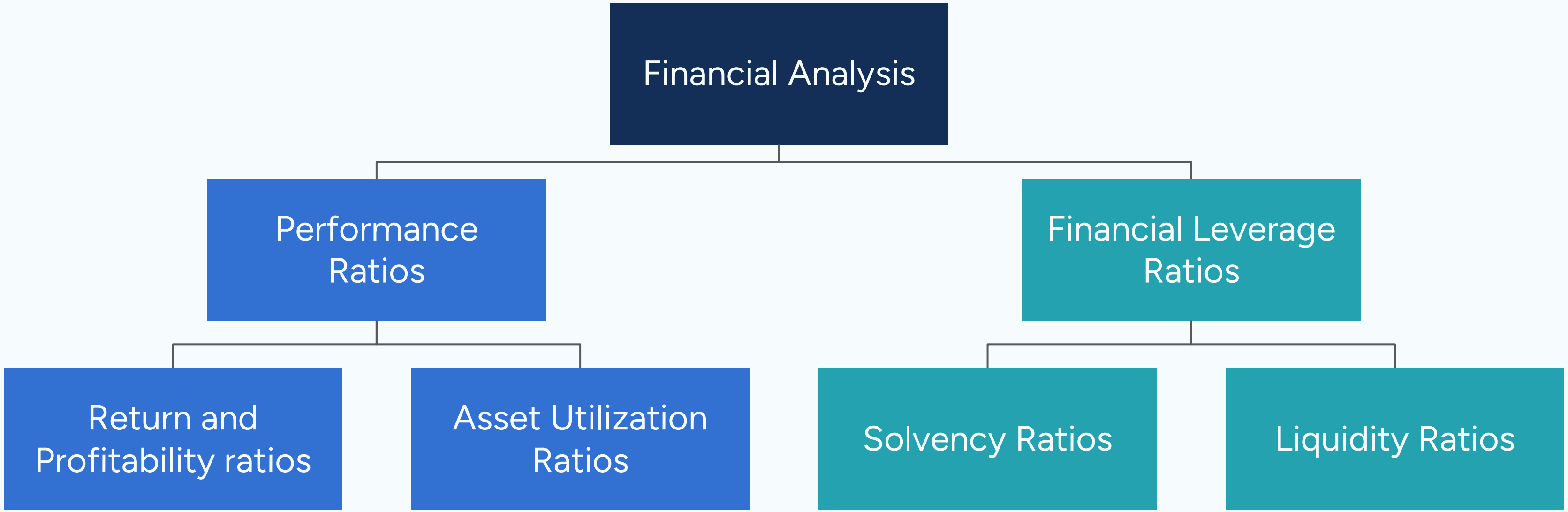




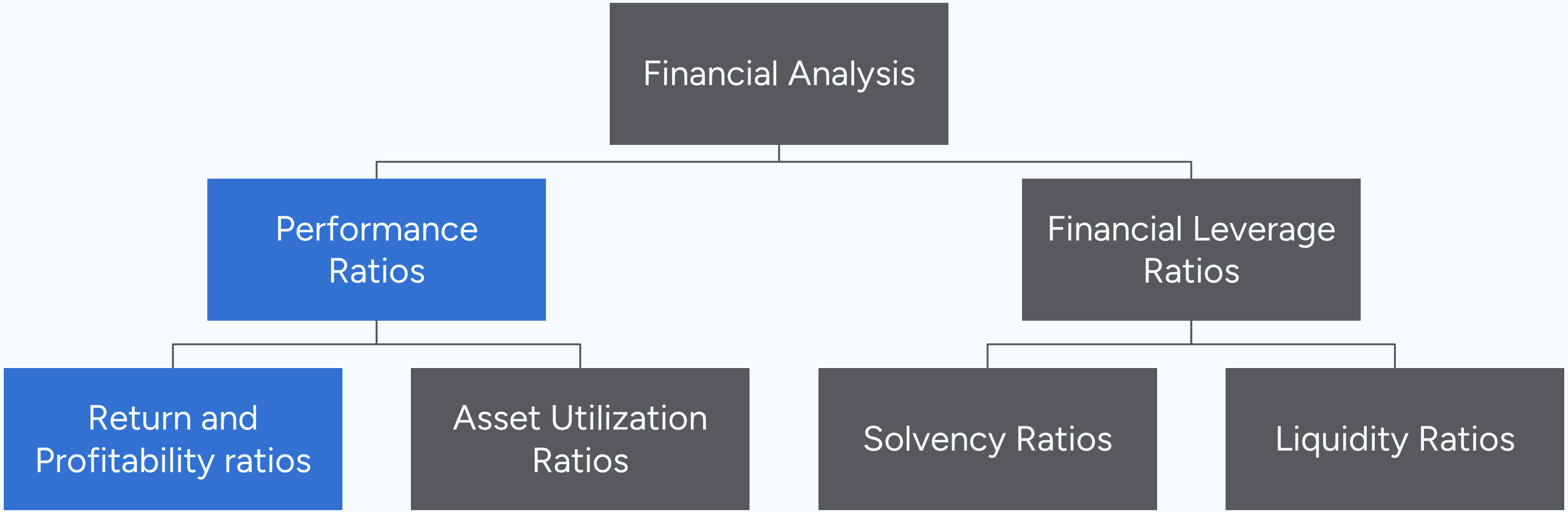


Essential Financial Ratios

Four Main Ratio Categories



Return and Profitability Ratios



Return Ratios – When to Use ROIC vs ROE

Return on Invested Capital

Net Operating Profit After Tax

Net Debt | Equity

NOPAT = EBIT x (1 – Tax Rate)

- Best to use when analyzing capital intensive industries funded by significant levels of debt (e.g. oil and gas, mining, large scale manufacturing, etc.).
- More useful the more enterprise value and equity value diverge.
- Analogous to enterprise value.
- Can be used with WACC to identify value creation. ROIC > WACC = value creation.
- This ratio comes under many different names such as:
    - Return on Capital Employed (ROCE)
    - Return on Average Capital Employed (ROACE)
    - Return on Net Assets (RONA)

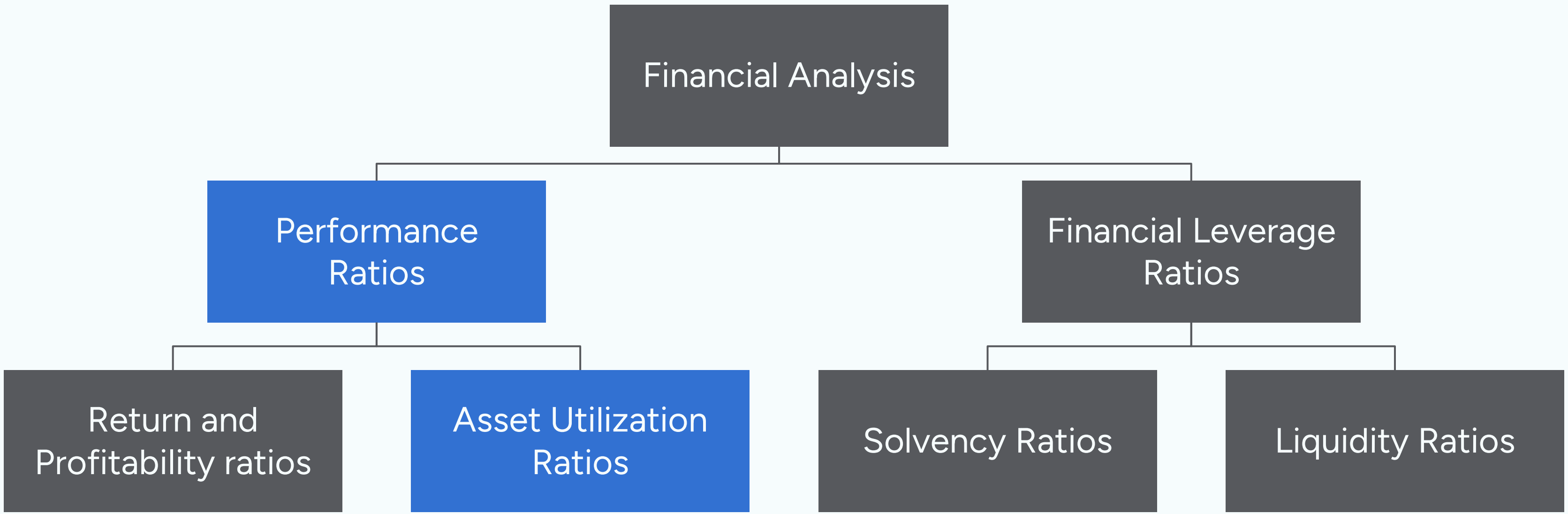
Return Ratios – When Not to Use ROIC vs ROE

Return on Equity Capital

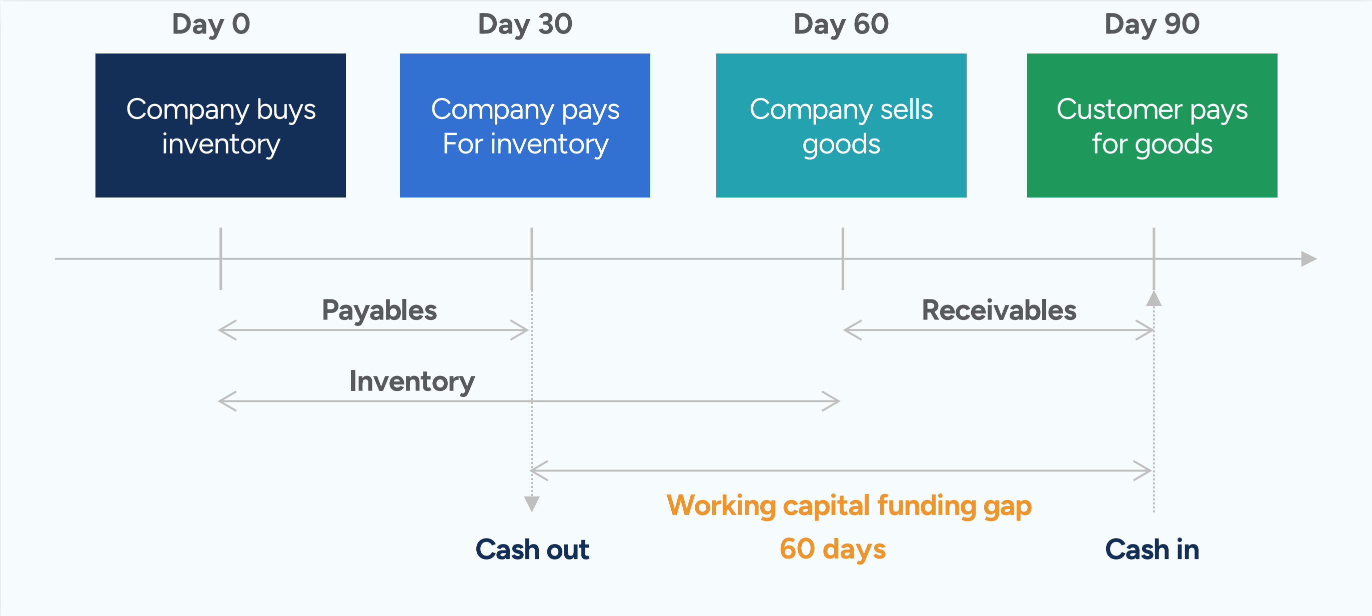
$$\frac{\text{Net Income}}{\text{Total Shareholders' Equity}}$$

- Little benefit to calculating ROIC when there is little difference between enterprise value and equity value (i.e. little to no debt).
- ROIC does not make sense for specific industries such as banking.

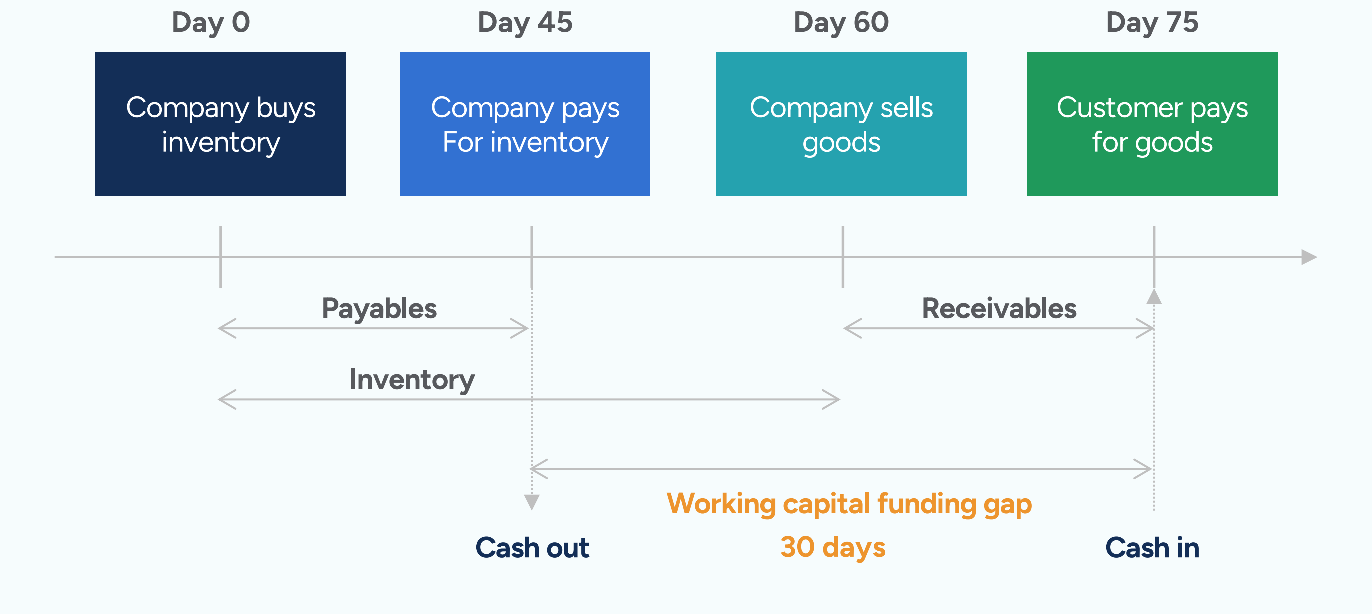
Asset Utilization Ratios



Combining Working Capital Days Ratios



Combining Working Capital Days Ratios



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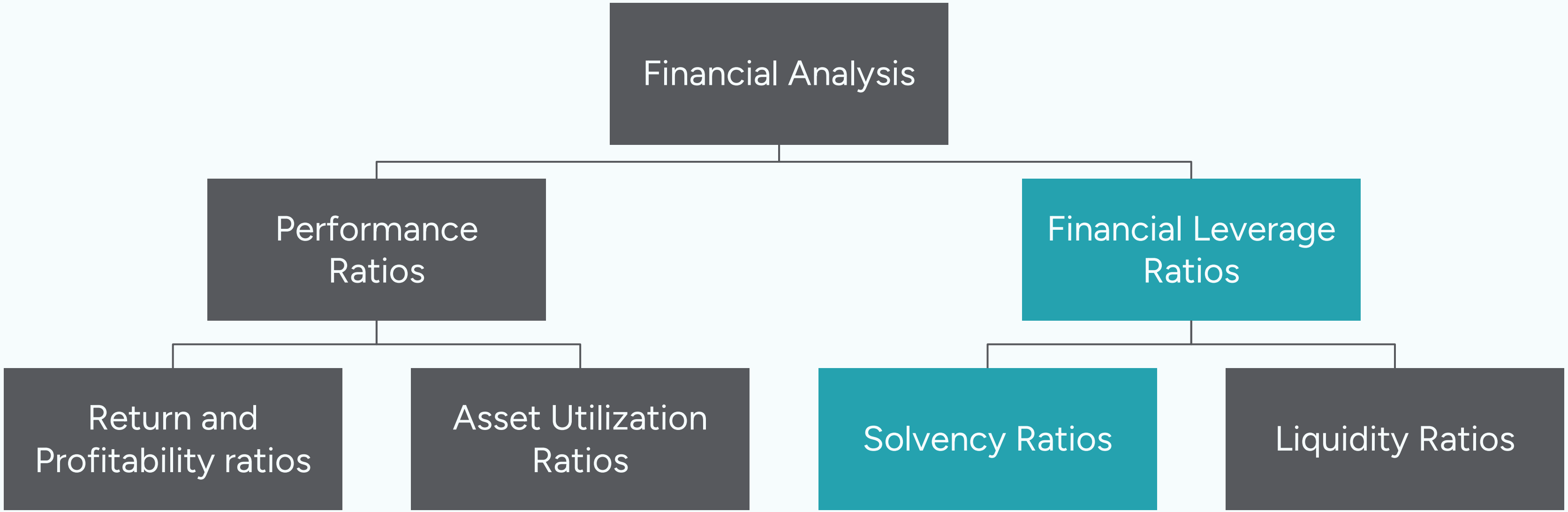
Solvency Ratios



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Debt and Net Debt to EBITDA Ratios

Debt to EBITDA

Interest Bearing Debt

EBITDA

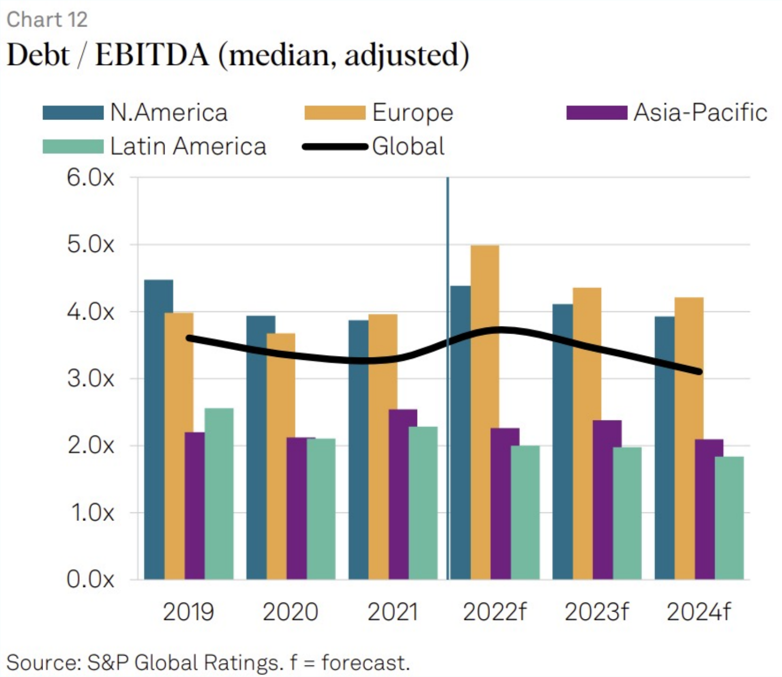
Net Debt to EBITDA

Interest Bearing Debt
- Cash

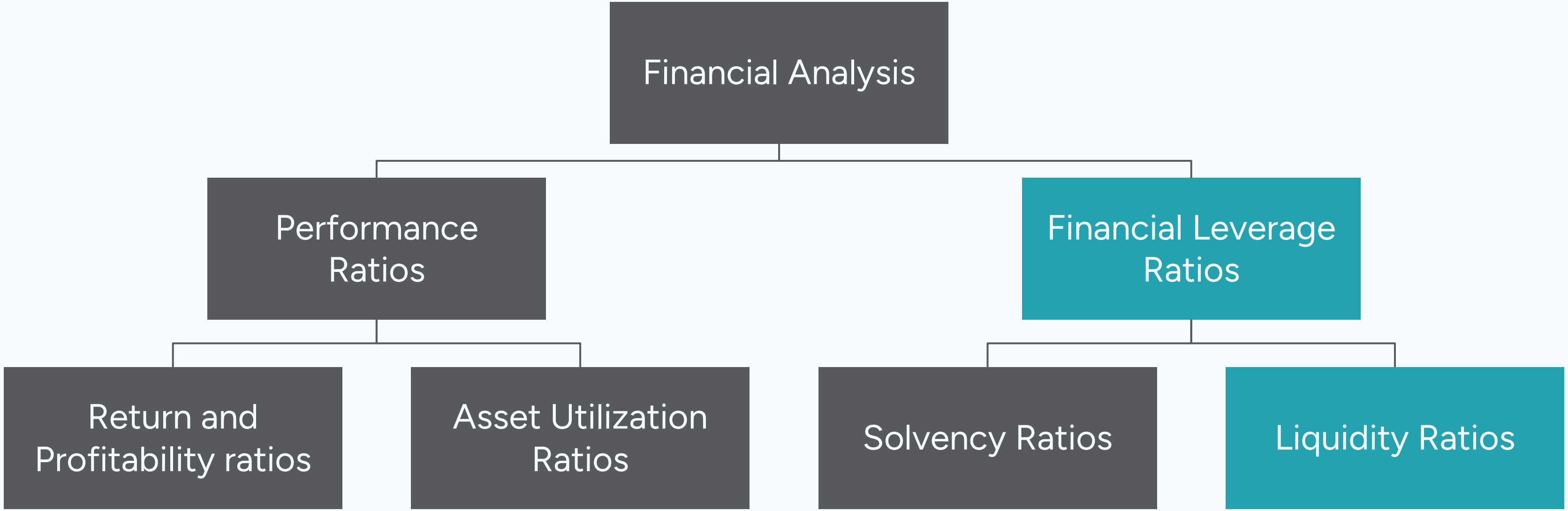
EBITDA

- Leverage ratios most aligned with EV/EBITDA multiple.
- Typically, how leverage is quoted by valuation practitioners and how data providers like S&P report stats.
- Often are used as large syndicated loan covenants.

Example of How Solvency is Reported



Liquidity Ratios



EBITDA to Interest Ratio

EBITDA to Interest

$$\frac{\text{EBITDA}}{\text{Interest Expense}}$$

- The coverage ratio most preferred by valuation practitioners.
- More meaningful than the current and quick ratios. Companies in certain industries can operate successfully with ratios below one (e.g. supermarkets)

ROE’s Three Levers – The Power of the Pyramid

Net Profit Margin

Net Income

Revenues

x

Total Asset Turnover

Revenues

Total Assets

x

Financial Leverage

Total Assets

Equity

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Q&A

Thank you for attending!

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