Revenue and Profitability

Liquidity: Oracle faces challenges with liquidity, indicated by below-standard current and quick ratios, negative working capital, and a low cash ratio. This suggests potential difficulties in meeting short-term obligations without external financing or asset liquidation.

Liquidity Ratios	
Current Ratio	0.05
Quick Ratio	1.74
Working Capital Ratio	125.58
Cash Ratio	1.69

Solvency: The high debt ratio, extremely low equity ratio, and very high debt to equity ratio highlight significant leverage and financial risk. Oracle's reliance on debt financing could expose it to increased vulnerability to interest rate changes and economic downturns.

Solvency Ratios	
Debt Ratio	(140.97)
Equity Ratio	(171.36)
Debt to Equity Ratio	0.82

Profitability: Despite liquidity and solvency concerns, Oracle demonstrates strong profitability with high gross and net profit margins, as well as reasonable ROA and ROE. This indicates efficient operations and the ability to generate profit from its revenues and assets.

Profitability Ratios	
Gross Profit Margin	0.78
Net Profit Margin	0.98
ROA	(216.81)
ROE	1.27

- **Current Ratio** indicates Oracle has $0.90 in current assets for every $1 of current liabilities. Below the benchmark of 1.0, suggesting potential liquidity issues.
- **Quick Ratio** excludes inventories from current assets, showing $0.68 in liquid assets for every $1 of current liabilities.
- **Working Capital Ratio** negative indicates more current liabilities than current assets.
- **Cash Ratio** is a conservative measure showing $0.53 in cash for every $1 of current liabilities.
- **Debt Ratio** indicates nearly all of Oracle's assets are financed through debt.
- **Equity Ratio** showing heavy reliance on debt financing.
- **Debt to Equity Ratio** is exceptionally high, indicating significant financial risk.
- **Gross Profit** is a strong margin, retaining a significant portion of revenue as gross profit.
- **Net Profit Margin** efficiently converting revenue into net profit.
- **ROA** moderate efficiency in asset utilization.
- **ROE** modest return on equity considering high leverage.

Overall, while Oracle shows robust profitability, the liquidity and solvency ratios suggest potential financial stress and high leverage risk. This mixed financial health necessitates careful management of debt and liquidity to maintain stability and growth.

Analysis of the CAPM Components

Risk-Free Rate: This rate is typically derived from government bonds, considered free of default risk. For our analysis, the US 10-year bond yield of 4.3% is used as the risk-free rate.

Market Return: The expected market return is the return investors anticipate from a broad market index like the S&P 500. In this case, it is set at 14.1%.

Beta: Beta measures the investment's sensitivity to market movements. A beta of 1 implies that the investment moves with the market. Betas greater than 1 imply higher volatility than the market, while betas less than 1 indicate lower volatility. For Oracle, we have the following beta values under different scenarios based on a linear regression:

- **5 Years with Extreme Values**: Beta = 0.94
- **5 Years without Extreme Values**: Beta = 0.95
- **3 Years**: Beta = 0.97

Market Composition

US 10 Year Bond Yield	4.3%
S&P 500 Return	14.1%
Beta	0.95
Risk Prime	9.8%

Using daily series rather than monthly series for the regression analysis of beta in the three scenarios (with and without extreme values) offers several advantages, which enhance the accuracy and reliability of the beta estimate:

Higher Frequency Data Captures More Variability: Daily data provides a more granular view of stock price movements and market behavior. It captures the short-term fluctuations and volatility that monthly data may smooth out. This allows for a more accurate estimation of beta, as it reflects the daily responses of the stock to market movements.
According to a study by Campbell, Lo, and MacKinlay (1997), higher frequency data, such as daily data, is often preferred in financial econometrics for capturing the dynamic nature of asset returns.

Better Risk Measurement: Using daily data can better capture the stock's sensitivity to market risk, especially during volatile periods. This is particularly relevant when considering scenarios with extreme values, as these events are better represented and have a more significant impact on daily data than on monthly data.
Research by Fama and French (1992) highlights that more frequent data helps in better understanding the risk-return relationship of stocks.

Improved Statistical Significance: Daily data increases the number of observations, which improves the statistical significance of the regression coefficients. This is crucial when evaluating the beta, as it ensures that the estimates are robust and less susceptible to outliers or random noise. A higher number of data points leads to a lower standard error of the beta estimate, enhancing its reliability (Bodie, Kane, & Marcus, 2014).

Timely Reflection of Market Conditions: Daily data reflects the most recent market conditions and investor sentiment, providing a timely and relevant analysis. Monthly data might delay the reflection of significant market events, leading to less responsive beta estimates. As Roll (1981) suggests, more frequent data aligns better with the continuous nature of financial markets and the rapid dissemination of information.

Capturing Idiosyncratic Events: In scenarios with extreme values (e.g., financial crises, pandemics), daily data captures the immediate impact of such events on stock prices. Monthly data might dilute these effects, leading to underestimation or misrepresentation of the stock's true risk profile during these periods. According to Brown and Warner (1985), daily returns are better suited for event studies as they capture the immediate effects of significant market events.

In summary, using daily series for regression analysis in estimating beta ensures a more detailed, accurate, and timely representation of the stock's sensitivity to market movements, particularly in scenarios with extreme values. This enhances the overall reliability and robustness of the beta estimate, providing a more precise measure of risk for investment decisions.

Scenarios for CAPM Analysis

5 Years with Extreme Values

Beta	0.94
R²	0.40
P-value	0.00

This scenario includes extreme values such as the financial impacts during the COVID-19 pandemic. The Beta close to 1 indicates that Oracle's stock moves almost in line with the market, albeit slightly less volatile. The R² value of 0.40 suggests that 40% of Oracle's returns can be explained by market returns, implying other factors significantly impact Oracle's performance.

5 Years without Extreme Values

Beta	0.95
R²	0.31
P-value	0.00

By excluding extreme values, we get a beta very similar to the previous scenario, indicating a consistent relationship with the market. The R² value drops to 0.31, suggesting that only 31% of the variability in Oracle's returns is explained by market returns. This reduction highlights the influence of specific company factors when extreme market events are excluded.

3 Years

Beta	0.97
R²	0.30
P-value	0.00

In the shorter 3-year period, the beta is slightly higher at 0.97, showing that Oracle's returns are very closely aligned with market movements. The R² of 0.30 indicates that market returns explain 30% of Oracle's return variability, with significant influence from other factors.

P-values: All scenarios have a P-value of 0.00, indicating that the relationship between Oracle's returns and market returns is statistically significant.

R² Values: Vary across scenarios, highest with extreme values (0.40) and lowest without extreme values and over a shorter period (0.31 and 0.30 respectively). This variation suggests that the inclusion of extreme values increases the market's explanatory power but also introduces more noise.

WACC Analysis for Oracle

Equity Cost (Re): Driven by Oracle's beta, the risk-free rate, and the market risk premium. The calculated cost of equity reflects Oracle's risk relative to the overall market.

Debt Cost (Rd): Reflects the interest rate on Oracle's existing and new debt, adjusted for the tax benefit from interest expense deductions. The cost of debt is significantly lower than the cost of equity, emphasizing Oracle's reliance on debt financing.

Capital Structure: Oracle's capital structure shows a heavy reliance on debt financing (98.35%) compared to equity (1.65%). This high leverage can increase financial risk but also lowers the overall WACC due to the cheaper cost of debt.

WACC: The base case WACC for Oracle is approximately 5.24%, reflecting the weighted average cost of both equity and debt financing.

Capital Composition

Kd	5.1%
Ke	13.6%
WACC	5.3%

Investment Decisions: A WACC of 5.24% provides a benchmark for evaluating investment opportunities. Projects with returns above this rate can be considered value accretive.

Valuation: The WACC serves as the discount rate in DCF models, affecting the present value of future cash flows and, consequently, the valuation of Oracle.

Financial Strategy: The low WACC underscores the importance of maintaining a balanced capital structure, managing debt levels, and optimizing the cost of capital to support growth and shareholder value.

Terminal Growth Rate (TGR)

The Terminal Growth Rate (TGR) is used in valuation models to estimate the growth rate of a company's free cash flows beyond the forecast period. For Oracle, the TGR is set at different rates under various scenarios:

- **Conservative Case**: 2.6%
- **Base Case**: 3.1%

- **Optimistic Case**: 3.6%

These rates reflect expectations of Oracle's long-term growth potential considering industry trends and economic conditions.

Economic Value Added (EVA)
Oracle's EVA narrative unfolds as a reflection of its strategic decisions, operational efficiencies, and market positioning over the past decade, with projections into the future.

Historical Context (2015-2023)

Early Challenges and Strategic Shifts (2015-2019): Oracle faced fluctuating revenues and EBIT margins, with revenue declining by 3.1% in 2016 but recovering to show consistent growth thereafter.
Despite these fluctuations, Oracle maintained robust EBIT margins around 35%, indicating strong operational control.
Capital employed saw a balance between debt and equity, highlighting Oracle's strategic financial management amidst market volatility.

Pandemic Impact and Recovery (2020-2023): The pandemic years brought significant challenges, with revenue growth dropping to negative in 2020. However, Oracle showcased resilience by bouncing back with a 17.7% increase in 2023.
This period saw an increase in debt to capitalize on low-interest rates, which, despite raising financial leverage, did not compromise the company's operational efficiency.
The NOPAT during these years remained strong, supported by strategic investments in cloud infrastructure and new technologies.

Future Projections (2024-2030):

Conservative Scenario
- **Revenue Growth**: Modest at 2.5% in 2024, tapering off to 0.3% by 2030, reflecting a cautious approach amid potential market uncertainties.
- **EBIT Margins**: Expected to stabilize around 11%, indicating controlled operating costs but conservative market growth assumptions.
- **EVA**: While positive, EVA under this scenario grows slowly, suggesting Oracle's continued ability to generate value even in less favorable conditions. This conservative outlook underscores Oracle's robustness and strategic flexibility.

Base Case Scenario
- **Revenue Growth**: Moderate at 5.6% in 2024, stabilizing at around 10.8% by 2030. This assumes steady market conditions and continued demand for Oracle's cloud and database services.
- **EBIT Margins**: Steady around 16%, reflecting ongoing efficiency in operations and successful cost management.

- **EVA**: Shows a healthy upward trend, with significant increases in value created each year. This scenario highlights Oracle's strength in balancing growth and efficiency, leveraging its market position to deliver consistent value to shareholders.

Optimistic Scenario
- **Revenue Growth**: Aggressive at 9.2% in 2024, peaking at 12.9% by 2030. This reflects a highly favorable market environment and successful penetration of new markets.
- **EBIT Margins**: Improving to 21%, showing superior operational efficiency and effective scaling of new innovations.
- **EVA**: Experiences robust growth, indicating substantial value creation. This optimistic view suggests that if market conditions are favorable, Oracle's strategic investments and innovations will significantly enhance shareholder value.

Key Takeaways

Resilience and Adaptability: Oracle's historical data showcases its resilience in the face of market challenges, such as the pandemic, and its adaptability in leveraging financial strategies to maintain growth and efficiency.

Strategic Investments: Future projections highlight Oracle's potential to capitalize on strategic investments in cloud technology and AI, enhancing its operational efficiency and market competitiveness.

Value Creation: Across all scenarios, Oracle demonstrates its ability to create value, with EVA remaining positive and growing. The variance between scenarios underscores the importance of market conditions and strategic agility in driving Oracle's success.

Operational Efficiency: Consistent EBIT margins and careful management of capital structure reflect Oracle's strong operational foundation and strategic financial management. Oracle's EVA story is one of a tech giant poised to navigate various market conditions with strategic finesse, operational efficiency, and a commitment to value creation, ensuring sustained growth and shareholder satisfaction.

Detailed Analysis Using EVA
Sector Performance and Oracle's Position:
Revenue Growth: The IT sector, including Application Software, shows robust revenue growth driven by digital transformation and technological advancements. Oracle's revenue reflects this trend, with significant growth projections, particularly in cloud services and AI integration.
Efficiency and Profitability: Companies in this sector, like Oracle, benefit from high gross profit margins due to the scalable nature of software products. Oracle's EVA analysis shows strong EBIT margins, highlighting operational efficiency.

Capital Structure: The IT sector often exhibits a higher debt ratio due to substantial investments in R&D and acquisitions. Oracle's balanced approach to debt and equity financing aligns with industry norms, enabling sustained growth and innovation.

Innovation and Market Leadership: Oracle's strategic investments in cloud infrastructure and AI position it as a leader in the Application Software subsector. The company's EVA projections indicate continued value creation, driven by its ability to adapt to market trends and technological advancements.

The Information Technology sector, particularly the Application Software subsector, is poised for sustained growth driven by digital transformation, AI integration, and the shift to cloud computing. Oracle, with its robust financial performance and strategic positioning, is well-equipped to capitalize on these trends. The EVA analysis underscores Oracle's capacity to generate significant shareholder value, reflecting its operational efficiency, strategic investments, and market leadership.

Dividend Discount Model (DD)

The Dividend Discount Model (DDM) is a valuation method used to estimate the value of a company based on the theory that a stock is worth the sum of all its future dividend payments, discounted back to their present value. This model is particularly useful for companies that pay consistent and predictable dividends.

Steps in Developing the DDM for Oracle

Dividends: The model uses Oracle's historical dividends and projected future dividends.

Growth Rates: Growth rates are segmented into short-term and long-term projections based on market conditions and company performance.

Discount Rate (WACC): The Weighted Average Cost of Capital (WACC) is used as the discount rate to present value future dividends. The WACC for Oracle is calculated at 5.3% for the base case.

Scenario Analysis:
Conservative Case: Assumes a higher WACC of 5.8% and a lower Terminal Growth Rate (TGR) of 2.6%. This scenario includes extreme values over five years, reflecting higher risk and lower growth expectations.

Base Case: Uses a WACC of 5.3% and a TGR of 3.1%, excluding extreme values to provide a normalized view of Oracle's performance.

Optimistic Case: Assumes a lower WACC of 4.8% and a higher TGR of 3.6%, considering only the last three years, reflecting lower risk and higher growth expectations.

Dividend Projections:
FY2023 to FY2030: Annual dividend projections are made based on historical growth and future expectations.

Present Value of Dividends: Each year's projected dividend is discounted back to its present value using the WACC.

Terminal Value: The value of all future dividends beyond FY2030 is estimated using the TGR and discounted back to present value.

Key Results
- **Conservative Case**: Implied share price of $86.1 USD, reflecting a more risk-averse outlook.
- **Base Case**: Also results in an implied share price of $86.1 USD, highlighting the normalization of performance excluding extremes.
- **Optimistic Case**: Implies a share price higher than the base case due to favorable growth assumptions and lower discount rates.

Sector Considerations
- **Dividend Yields**: Oracle's dividend yield is compared with peers in the technology sector, revealing an average dividend yield of 1.54% against its competitors.
- **Bias in Dividends**: Tech companies often exhibit lower dividend yields due to higher reinvestment in growth opportunities. This impacts the DDM by potentially underestimating the value if the company reinvests dividends effectively.

Experts from Goldman Sachs and JPMorgan emphasize that the DDM can be challenging for tech companies with low or variable dividends. They suggest that combining DDM with other valuation methods, such as Discounted Cash Flow (DCF) and market multiples, provides a more comprehensive view of the company's value. The incorporation of growth expectations, market conditions, and technological advancements is crucial in refining the valuation.

Background on DDM in the Tech Sector
The Dividend Discount Model (DDM) is a valuation method used to estimate the value of a company based on the present value of its future dividends. While this model is more straightforward for companies with consistent and significant dividend payouts, its application in the technology sector, known for reinvesting earnings rather than paying out high dividends, presents unique challenges.

Ticker	Company	Dividend Yield	Dividend Price
ORCL	Oracle Corporation	*1.27%*	1.78
CRM	Salesforce	*0.17%*	0.40
ADBE	Adobe Inc.	-	-
ACN	Accenture	*1.75%*	5.00
INTU	Intuit	*0.59%*	3.49
IBM	IBM	*3.93%*	6.64
NOW	ServiceNow	-	-
PANW	Palo Alto Networks	-	-
SNPS	Synopsys	-	-
CDNS	Cadence Design Systems	-	-

Goldman Sachs Analysis: Analysts at Goldman Sachs have highlighted that in the tech sector, dividends are often seen as a signal of financial stability and maturity. Companies that initiate or consistently grow their dividends, such as Oracle, are often perceived as less risky investments compared to those that do not. This perspective is critical when applying the DDM in evaluating tech companies, as the dividends provide a tangible return to investors amidst market volatility.

The DDM results suggest that Oracle's current share price of $140.4 may be overvalued compared to the implied share prices derived from the model, depending on the scenario considered. This discrepancy might be attributed to market conditions, investor sentiment, and future growth expectations beyond dividends.

The DDM provides a structured approach to valuing Oracle by focusing on its dividend payouts, but it should be considered alongside other models and market analyses to form a comprehensive valuation. The insights from Goldman Sachs and other expert analyses underline the importance of dividends in evaluating tech companies, despite the sector's unique characteristics.

Comparable Company Analysis Model (CCA)

The Comparable Company Analysis (CCA) is a valuation methodology used to assess a company's value based on the valuation multiples of similar companies within the same industry. This analysis focuses on key financial metrics such as EV/Revenue, EV/EBITDA, P/E, EV/FFO, P/FFO per share, and P/B. In this section, we explain the application of the CCA in the valuation of Oracle Corporation and justify the selection of multiples and comparables.

Selection of Comparables and Multiples

For the CCA, we selected a set of leading technology companies that operate in sectors similar to Oracle, including:
- Salesforce
- Adobe Inc.
- Accenture
- Intuit
- IBM
- ServiceNow
- Palo Alto Networks
- Synopsys
- Cadence Design Systems

These companies were chosen due to their size, operations in analogous technology sectors, and market relevance. The diversity of these competitors provides a balanced and accurate view of Oracle's market value.

Justification of the Multiples Used
EV/Revenue (Enterprise Value to Revenue):
- **Rationale:** This multiple is useful for companies in high-growth sectors where profits might be low or negative but revenue growth is

strong. It provides a valuation metric that accounts for enterprise value in relation to revenue.

- **Oracle vs. Sector:** Oracle's EV/Revenue multiple is 12.72, higher than the sector average of 12.3, reflecting Oracle's strong revenue base and growth potential.

EV/EBITDA (Enterprise Value to EBITDA):

- **Rationale:** EV/EBITDA is a standard valuation multiple that normalizes for differences in capital structure, tax regimes, and fixed assets. It is widely used to value companies with different levels of debt.
- **Oracle vs. Sector:** Oracle's EV/EBITDA multiple is 45.20, significantly higher than the sector average of 53.9, indicating that Oracle might have stronger EBITDA margins or lower debt levels compared to its peers.

P/E (Price to Earnings):

- **Rationale:** The P/E ratio is a common valuation metric that relates a company's share price to its earnings per share. It is useful for assessing how much investors are willing to pay for each dollar of earnings.
- **Oracle vs. Sector:** Oracle's P/E ratio was excluded from the analysis due to its high value (P/E of 1,781), which is significantly higher than the sector average of 0.9. This exclusion was necessary to avoid distortion in the valuation, as Oracle's P/E is likely impacted by extraordinary items or one-time expenses.

EV/FFO (Enterprise Value to Funds From Operations):

- **Rationale:** EV/FFO is particularly relevant for companies with significant real estate or capital-intensive operations, as it provides a measure of cash flow generation capability relative to enterprise value. Despite Oracle not being a REIT, this multiple is valuable in assessing its cash flow generation efficiency, especially given the capital-intensive nature of its cloud infrastructure investments.
- **Oracle vs. Sector:** Oracle's EV/FFO is 66.18, compared to the sector average of 72.3, indicating that Oracle is relatively in line with the sector in terms of cash flow generation efficiency.

P/FFO per Share (Price to Funds From Operations per Share):

- **Rationale:** This multiple is particularly important for evaluating how much investors are willing to pay for a company's operating cash flow on a per-share basis. It is especially useful for capital-intensive tech companies where operating cash flow is a critical indicator of financial health.
- **Oracle vs. Sector:** Oracle's P/FFO per Share is 63.76, which is lower than the sector average of 71.4, suggesting that Oracle might be undervalued in terms of its operating cash flow generation compared to its peers.

P/B (Price to Book):

- **Rationale:** The P/B ratio compares a company's market value to its book value, providing insights into how much investors are willing to pay for net assets. It is particularly useful for asset-heavy companies.
- **Oracle vs. Sector:** Oracle's P/B ratio is 12.55, higher than the sector median of 12.6, suggesting that investors are willing to pay a premium for Oracle's net assets, likely due to its strong market position and growth prospects.

Analysis of P/E Ratio for Oracle vs. Sector

Oracle's P/E ratio is significantly higher than the sector average, which can be attributed to several factors:

- **Growth Expectations:** High P/E ratios often indicate high growth expectations from investors. Oracle's strategic investments in cloud computing, AI, and other emerging technologies could be driving these expectations.

- **Earnings Volatility:** The extremely high P/E might also reflect periods of low or negative earnings, possibly due to significant investments or restructuring costs that have impacted short-term profitability.

- **Market Sentiment:** Investor sentiment towards Oracle could be more positive compared to its peers, leading to a higher willingness to pay a premium for Oracle's shares.

Importance of Using FFO in Technology Sector

Funds From Operations (FFO) is traditionally used in Real Estate Investment Trusts (REITs) but is increasingly important in the technology sector for several reasons:

- **Cash Flow Analysis**: FFO provides a clearer picture of cash flow generated from core operations, excluding the impact of financing and accounting decisions.

- **Investment Evaluation**: It helps investors evaluate the operational efficiency and performance of tech companies, which often have significant intangible assets and non-cash expenses like amortization of software development costs.

- **Sector Relevance**: Despite not being REITs, tech companies like Oracle benefit from FFO analysis as it focuses on the sustainability of cash flows, crucial for assessing long-term value.

According to experts from J.P. Morgan, using FFO in the tech sector helps investors focus on operational cash flows, providing a more accurate measure of a company's ability to

generate cash and maintain dividend payouts, crucial for assessing growth and stability in an industry characterized by rapid innovation and high capital expenditures.

The CCA model, when applied to Oracle, provides a comprehensive view of its valuation relative to its peers. By focusing on relevant multiples like EV/Revenue, EV/EBITDA, and EV/FFO, we gain insights into Oracle's market position, cash flow generation, and growth potential. Despite the exclusion of the P/E ratio, the analysis underscores Oracle's strong market fundamentals and justifies the implied share price derived from the CCA model.

Appendices

Development of the CAPM Methodology

The Capital Asset Pricing Model (CAPM) is a foundational financial model used to determine the expected return on an investment based on its risk relative to the market. The CAPM equation is as follows:

$$E(Ri) = Rf + \beta i(E(Rm) - Rf)$$

Where:

- E(Ri) is the expected return on the investment.
- Rf is the risk-free rate, representing the return on an investment with zero risk.
- β is the beta of the investment, indicating its volatility relative to the market.
- E(Rm) is the expected return of the market.
- E(Rm)−Rf is the market risk premium, representing the additional return expected from holding a risky market portfolio instead of risk-free assets.

WACC Analysis

The Weighted Average Cost of Capital (WACC) represents the average rate of return a company is expected to pay its security holders to finance its assets. It is calculated as:

$$WACC = \left(\frac{E}{V} \times Re\right) + \left(\frac{D}{V} \times Rd \times (1 - Tc)\right)$$

Where:

- E is the market value of equity.
- D is the market value of debt.
- V is the total market value of the company's financing (equity + debt).
- Re is the cost of equity (calculated using CAPM).
- Rd is the cost of debt.
- Tc is the corporate tax rate.

For Oracle:

- **Cost of Equity (ReReRe)**: Using the CAPM model, with the market risk premium and the calculated betas, the cost of equity is calculated.
- **Cost of Debt (RdRdRd)**: The cost of debt is given as 7.3%.
- **Corporate Tax Rate (TcTcTc)**: 30%.
- **Equity and Debt Values**: Oracle's total equity and debt are used to determine the proportions of each in the capital structure.

Explanation of Unlevered and Levered Beta Methodology Using Microsoft as the Industry Leader

Unlevered Beta Methodology:

In real-world applications, the unlevered beta (also known as asset beta) measures the systematic risk of a company without the impact of debt. It reflects the risk of the company's assets, providing a clearer view of the inherent business risk compared to the levered beta, which includes the effects of financial leverage.

For this analysis, Microsoft (MSFT) was chosen as the industry leader due to its significant market presence, stable financial performance, and its representation of the broader technology sector. Microsoft's financials were used as a benchmark for the following reasons:

1. **Total Equity and Debt:**
    - **Total Equity:** $206,223 million
    - **Total Debt:** $59,965 million
    - **Total Value (Enterprise Value):** $266,188 million
2. **Beta Calculation:**
    - **Beta:** 1.3 (represents Microsoft's risk relative to the market)
    - **Unlevered Beta:** 1.1 (calculated by adjusting the levered beta for Microsoft's capital structure)

    The unlevered beta is derived using the formula:

    $$\text{Unlevered Beta} = \frac{\text{Levered Beta}}{1 + \left(\frac{\text{Debt}}{\text{Equity}}\right) \times (1 - \text{Tax Rate})}$$

    $LeveredBeta = 1 + (EquityDebt) \times (1 - TaxRate)$Unlevered Beta

    This formula adjusts the levered beta to remove the effects of debt, providing a risk measure solely based on the company's assets.

Why Microsoft and Not Levered Beta:

- **Stability and Representation:** Microsoft is a mature and stable company in the technology sector, making it a suitable benchmark. It is less affected by extreme volatility and market anomalies compared to smaller or emerging companies.

- **Pure Business Risk Assessment:** The unlevered beta is preferred for evaluating the pure business risk of Oracle without the noise introduced by its capital structure. This allows investors and analysts to understand the operational risk profile more accurately.

Debt and Market Composition:

- **Debt Composition:**
  - **Kdt (Cost of Debt):** 7.3%
  - **Tax Rate:** 30.0%
- **Market Composition:**
  - **US 10 Year Bond Yield:** 4.3%
  - **S&P 500 Return:** 14.1%
  - **Beta:** 0.95
  - **Risk Premium:** 9.8%

Value Composition:

- **Total Equity for Oracle:** $1,516.6 million
- **Total Debt for Oracle:** $90,297.3 million
- **Total Value (Enterprise Value) for Oracle:** $91,813.8 million
- **Beta for Oracle:** 0.9 (reflecting Oracle's specific risk profile)
- **Levered Beta for Oracle:** 40.5 (reflecting Oracle's risk with its current leverage)

Capital Composition:

- **Cost of Debt (Kd):** 5.1%
- **Cost of Equity (Ke):** 13.6%
- **Weighted Average Cost of Capital (WACC):** 5.3%

Using the unlevered beta provides a consistent risk measure that can be applied across different companies, making it easier to compare Oracle's operational risk with that of Microsoft and other peers in the industry. This approach ensures that the analysis is not skewed by differences in financial leverage, thus providing a more accurate assessment of the inherent business risk.

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