D. DETAILED OUTLINE

I. Part A: Company Overview (1 page)

- Provide company name, industry, core business/products/services
- List stock exchange, ticker symbol, credit rating
- Name major competitors

Example:

- Company Overview:
    + Name: Newcrest Mining Ltd (NCM)
    + Established: 1966
    + Industry: Mining (Gold and Copper)
    + Global Presence: Operations on three continents - Australia, Canada, and Papua New Guinea.
    + Objective: Discover and develop long-life mines with significant mineral deposits.
- Core Business Activities:
    + Activities: Exploration, assessment, infrastructure development, operation, and maintenance of mining assets.
- Products and Services:
    + Primary Product: Gold extracted from mining operations in various forms (doré bars, gold concentrates)
    + By Product: Copper.
- Share Exchange Listing and Ticker Symbol:
    + Listed on the Australian Securities Exchange (ASX).
    + Ticker Symbol: "NCM".
- Credit Rating:
    + Credit Rating: Baa-level according to Moody's Investors Service - Baa-level considered medium-grade with some speculative characteristics.
    + Reflects the company's creditworthiness.
- Major Competitors:
    + Notable Competitors: Barrick Gold Corporation, Newmont Corporation, AngloGold Ashanti Limited, Kinross Gold Corporation
    + Competition Factors: Discovery of new mineral deposits, operational efficiency, technological advancements, regulatory navigation.

II. Part B: Company Financials

1. Business Performance Overview (Historical Trends):

- Production Metrics: Key production figures (e.g., units, output) over the past 3-5 years.
- Financial Metrics:
  + Historical financial performance, including revenue, EBITDA, and net income.
  + Identify peak performance years and key drivers.

Example:

- Production Metrics:
  + Gold production: 2.1 million oz in 2023 (15% increase from 2022).
  + Copper production: 133.1k tons in 2023 (vs. 120.7k tons in 2022).
- Financial Metrics:
  + EBITDA growth: $1670Mn (2019) to $2064Mn (2023) - 23.5% increase.
  + Peak EBITDA: $2443Mn in 2021 (driven by record-high global gold prices during COVID-19).
  + Total Revenue: Increased from $3800Mn (2019) to over $4500Mn in 2023 (3.4% CAGR).
  + Revenue Drivers: Higher global gold and copper prices.

2. Financial Health and Solvency:

- Debt and Liquidity:
  + Analysis of debt levels and recent financing activities.
  + Assessment of liquidity position and any recent changes.
- Financial Ratios:
  + Key financial ratios from Bloomberg, Yahoo Finance,etc

    E.g: + debt-to-equity - to understand how much a company relies on debt to finance its assets.

    + current ratio - to assess whether a company has enough resources to pay off its short-term debts.

    + quick ratio - Particularly relevant in industries where inventory is less liquid or more subject to value fluctuations.
  + Choosing the Right Ratio: Nature of Industry, Purpose of Analysis, Comparative Analysis
  + EBITDA to interest coverage and net debt to EBITDA ratio.

Example:

- Debt and Liquidity:
    + Debt Financing: Accelerated debt for BruceJack acquisition in 2023.
    + Liquidity Risk: Offset by increased EBITDA.
- Financial Ratios:
    + Net Debt to EBITDA Ratio: Low at 0.66.
    + EBIT to Interest Coverage: EBIT easily covers interest expense, 17.9 times the size.

3. Operational Efficiency and Cost Structure

- Cost Efficiency:
    + Evaluation of cost structure efficiency.
    + Identify any cost reduction or optimization strategies.
- Operating Margin Analysis:
    + Historical trends in operating margins.
    + Factors influencing changes in operating costs.

Example:

- Trend: Decreasing trend from $1164Mn (2021) to $778Mn (2023).
- Contributing Factors: Higher operating costs due to inflationary pressures post-COVID-19 and global geopolitical tensions.
- Operating Cost Increase: Nearly 30% from 2020-2023, impacted by inflation in input costs (oil, gas, steel, labor) and shipping challenges.

III. Part C: Bond Analysis (1-2 pages)

1. Credit Rating Overview:

- Current Ratings: Specify the credit ratings from relevant agencies (e.g., Moody's, S&P Global).
- Credit Spread for Comparable Bonds: Identify the credit spread for comparable bonds in the market.

Example:

- Current Ratings:
    + Moody's: Baa
    + S&P Global: BBB-

- Credit Spread for BBB-Rated Bonds: Non-financial corporate BBB-rated bonds have a spread of 2.12% as of 30/09/2023 (RBA 2023).

2. Proposed New Bonds Details:

- Bond Features: Face Value (FV), Maturity, Coupon Rate.
- Calculation of Payment Periods: Determine the number of payment periods.
- Yield-to-Maturity Calculation:
    + Utilize the formula: Yield-to-Maturity = Credit spread + Risk-free rate.
    + Obtain the risk-free rate (e.g., government bond yield).
    + Calculate the yield investors would demand for the new bonds.

Example:

- Bond Features:
    + Face Value (FV): $1000
    + Maturity: 10 years
    + Coupon Rate: 5% semi-annual
- Calculation of Payment Periods:
    + 20 payment periods with $25 each.
- Yield-to-Maturity Calculation:
    + Newcrest's new bonds' Yield-to-Maturity = Credit spread + Risk-free rate.
    + Current risk-free rate: Commonwealth Australian Government 2-year bond yield (Sep-2023) = 3.95%.
    + Calculation: 2.12% (Credit spread) + 3.95% (Risk-free rate) = 6.07%.
    + Conclusion: Assuming the company maintains the current credit ratings, investors would demand a yield of 6.07% from NCM's new bonds.

3. Bond Price Calculation:

- Formula:

$$P = \frac{C \times (1-(1+r)^{-n})}{r} + \frac{FV}{(1+r)^n}$$

Where:

- P is the price of the bond.
- C is the periodic coupon payment.
- r is the periodic yield to maturity (YTM) or interest rate.
- n is the total number of periods.
- FV is the face value or maturity value of the bond.

- **Total Proceeds from Bond Issuance**: Estimate the total amount of money the company can raise through bond issuance.

$$\text{Total Proceeds} = \frac{\text{Amount to be Raised}}{\text{Face Value of Each Bond}} \times \text{Bond Price}$$

Where:

- Total Proceeds is the total amount of money the company can raise.
- Amount to be Raised is the desired or planned amount of funds the company intends to raise through the bond issuance.
- Face Value of Each Bond is the nominal or face value of each bond issued.
- Bond Price is the calculated price of each bond using the bond pricing formula.

4. Financial Analysis and Credit Rating Impact:

- Financial Metrics: Assess relevant financial metrics (e.g., Debt-to-Equity Ratio).
- Credit Rating Impact:
  + Analyze the potential impact of changes in credit rating.
  + Consider how a higher or lower credit rating affects the credit spread, discount rate, bond price, and total proceeds from the bond issuance.

Example:

- Debt-to-Equity Ratio:
  - Stable and anticipated to decrease in the future.
- Credit Rating Impact:

- Higher credit rating → Smaller credit spread → Lower discount rate → Lower bond price.
- Lower credit rating → Larger credit spread → Higher discount rate → Higher bond price.

IV. Part D: Share Analysis

1. Share Price Analysis

- Identify overall trends, increases, or decreases.
- Note significant fluctuations or milestones and explain the reasons behind these.
- State out the recent development and future outlook

Example:

- **Overall trends**: The overall shape of the graph depicts a decrease in the share price of NCM for the last 3 years with multiple wide fluctuations**. At the beginning of the timeframe, NCM's share was valued at around 29.243 AUD, while the value of NCM share at the moment is around 25.230 AUD.
- **Significant fluctuations/milestones and causes:**
    + Event: NCM share price witnessed its first downturn in early 2021.
    + Causes:
        - As a major gold producer, its share price is driven by the price of gold. As the gold price spiraled down a declining trend during this period, which adversely affected investor and market sentiment and led to a decrease in Newcrest's share price
        - As COVID-19 continued its worldwide spread in early 2021, spurred by Alpha variant, investors are highly concerned, resulting in a decline in the demand for NCM shares
- **Recent development and future outlook:**
    + Recent development: Notably, in April 2023, NCM's share price skyrocketed as Newcrest has declared a fully-franked final dividend of 20 US cents for 2023, making the total dividends for the fiscal year 55 US cents, marking a 16% increase compared to the previous year's payouts (Bowen 2023).
    + Future outlook: However, as the risk of global recession rises amid simultaneous rate hikes affecting the investors' confidence, the share price of NCM slightly decreases (Jeffrey 2023).

2. Dividend Payment

- Provide historical dividend payments from Yahoo, Investing.com, or financial reports of your assigned company using a table or line graph.

AAPL Dividend Date, History & Yield

Dividend Insights

Ex-Dividend Date	Dividend	Type	Payment Date	Yield
Nov 10, 2023	0.24	3M	Nov 16, 2023	0.53%
Aug 11, 2023	0.24	3M	Aug 17, 2023	0.54%
May 12, 2023	0.24	3M	May 18, 2023	0.55%
Feb 10, 2023	0.23	3M	Feb 16, 2023	0.61%
Nov 04, 2022	0.23	3M	Nov 10, 2022	0.66%
Aug 05, 2022	0.23	3M	Aug 11, 2022	0.55%

Show more

- Calculate the required rate of return of shareholders, using the following formula:

$$R = R_f + \beta \times (R_m - R_f)$$

Where:

- R is the required rate of return.
- R_f is the risk-free rate, typically the yield on government bonds.
- β is the beta of the stock, representing its sensitivity to market movements.
- R_m is the expected market return.

V. Part E: Risk Analysis

1. Beta Calculation

- Gather historical monthly prices and dividends for your company and its competitors
- Calculate monthly returns (R_t) using the percentage change in prices

$$R_t = \frac{Pt - P(t-1)}{P(t-1)}$$

Note:

- R_t: This represents the rate of return at time *t*. It's the percentage change in the value of the investment between two time periods(from $t-1$ to t)
- Pt: This is the price of the stock or value of the investment at time. It's the current or ending price in the period you're examining.

- $P(t-1)$: This refers to the price of the stock or value of the investment at time $t-1$. It's the initial or starting price in the period you're examining.
- Calculate Cov(R_{share} - R_{market}) and Variance(R_{market}) using Excel.
- Use the calculated covariance and variance to determine β

$$\beta = \frac{Cov(Rshare - Rmarket)}{Variance(Rmarket)}$$

Note:

- R_{share}**:** This refers to the return of a specific stock or share. It is typically calculated as the percentage change in the price of the stock over a given period.
- R_{market}**:** This represents the return of the market as a whole, often measured by the performance of a market index like the S&P 500 or the Dow Jones Industrial Average.
- Cov(R_{share} - R_{market})**:** Covariance is a measure that shows how two variables move together. In this context, "Cov(R_{share} - R_{market})" calculates how the return of a specific stock moves in relation to the market's return. If they tend to move in the same direction, the covariance is positive; if they move in opposite directions, the covariance is negative.
- Variance(R_{market})**:** Variance measures the dispersion of a set of values from their mean. "Variance(R_{market})" calculates how much the market's returns deviate from the average market return. A higher variance indicates more volatility in market returns.

- Using 1 sentence to explain the Beta. Using 1 to 2 sentences explain your calculation process. Demonstrate your results in a table.

Example:

To estimate the β - a metric for quantifying the amount of systematic risk in the shares of NCM and its two competitors (Northern Star Resources Ltd. - NST and BHP Group Limited - BHP), historical data on monthly prices and dividends for the three firms' shares as well as the S&P/ASX 200 are gathered first. Monthly returns are computed from this data to determine the percentage change in prices for each month as follows:

$$R_t = \frac{Pt - P(t-1)}{P(t-1)}$$

Secondly, the covariance between the returns of the share and the returns of the market index are then calculated, along with the variance of the market index returns. The β is calculated as follows:

$$\beta = \frac{Cov(Rshare - Rmarket)}{Variance(Rmarket)}$$

- Compare the results of different companies (highest, lowest) and interpretation of volatility

Example:

- NCM has the second-lowest β (0.81), indicating lower volatility than the market.
- BHP has the lowest β (0.79), and NST has a relatively high β (1.07).

2. Factors Causing Diversification in Systematic Risk

- Explain drivers of systemic risk differences
    + Diversification: Discuss how resources and products diversification, geographic exposure, and market capitalization influence systematic risk.
    + Company-specific factors: Explore the impact of a company's focus (e.g., gold mining for NST) on systematic risk
    + Size effect: Consider the role of company size in mitigating or exacerbating risk.

Example:

- Diversification: BHP's diversified portfolio lowers its risk compared to NCM and NST.
- Company-Specific Factors: NST's focus on gold mining increases its exposure to gold market fluctuations.
- Size Effect: BHP's larger size provides more financial stability, potentially lowering its risk.

3. Common Systematic Risks

- Stating that despite differences, mining companies face common systematic risks, including
    + Industry-Specific Factors: Macroeconomic factors, commodity price volatility, and global economic conditions.
    + Operational & Safety Risks: Highlight how operational and safety risks inherent in mining contribute to common systematic risk.

Example:

Despite their differences, NMC, NST and BHP Group shares share systematic risk. As they all operate within the mining industry, they will face similar risks stemming from macroeconomic factors, including commodity price volatility, global economic conditions, and interest rate fluctuations (Tubis, Werbińska-Wojciechowska and Wroblewski 2020). They are subject to comparable systematic risk due to their reliance on the market and industry-specific factors. Their similar systematic risk foundation is further reinforced by the

operational and safety risks that are inherent in mining as well as their equal susceptibility to changes in the environment and regulations (Badri, Nadeau and Gbodossou 2012).

VI. Part F: Payout Policy

1. Dividend distribution

- You can either find the payout policy of your company through your company website or calculate it by using the formula

$$\text{Dividend Payout Ratio} = \left(\frac{\text{Total Dividends}}{\text{Net Earnings}}\right) \times 100$$

- Evaluate how much of the company's earnings were distributed to investors.

Example:

Newcrest distributes dividends annually within a range of 30-60% of the free cash flow generated during the financial year. The minimum annual dividend target is set at a full-year basis of at least US$ 15 cents per share (Newcrest 2023).

2. Reinvestment of Earnings

- Once again, you can either find the payout policy of your company through your company website or determine the percentage of earnings reinvested by subtracting the dividend payout ratio from 100%.
- Assess the proportion of earnings retained for reinvestment in the company's operations and growth.

Example

Approximately 66.67% of earnings were retained for reinvestment.

3. Dividend Smoothing

- Define and explain the concept of dividend smoothing
- Investigate whether the company engaged in dividend smoothing by observing consistent dividend payments even during periods of fluctuating earnings.

Example

- Definition: Dividend smoothing aims to maintain stable dividend payments despite fluctuations in earnings.
- Analysis: NCM's dividend price has continuously shown an increasing trend, demonstrating the company's dedication to dividend smoothing. An annual rise in dividend growth of 0.79 during the specified periods serves as evidence of this.

4. **Share repurchases**

- Data Collection: Check changes in the number of outstanding shares on the company's balance sheets over different years.
- Analysis: Determine if the company conducted share repurchases. If available, review the company's financial statements or management commentary for explicit mentions of share repurchases.

Example

Share repurchases typically lead to a decrease in the number of outstanding shares. However, as the outstanding shares of NCM grow annually, it can be concluded that NCM did not partake in the share repurchase.

5. **Decision Rationale**

- Management Commentary: Look for explanations provided by the company's management in annual reports or press releases.
- Financial Position: Assess whether the company's decision aligns with its financial position and objectives.
- Market Conditions: Consider external factors such as market conditions, competition, and industry trends that may influence payout decisions.

Example

- Management Commentary:
    + The 2022 annual report states the company increased dividends by 5% "in light of strong earnings performance and our commitment to return capital to shareholders.
    + The CEO commented that share repurchases allow the company to return excess cash in a tax-efficient manner.
- Financial Position:
    + XYZ Corp has grown revenue at a healthy 8% annual pace the last 3 years and has ample cash on hand, supporting the dividend increase.
    + The lack of share repurchases seems prudent given XYZ plans to invest heavily in R&D and new equipment over the next 3 years to drive innovation.
- Market Conditions:
    + The company operates in a mature industry with limited growth opportunities, making dividends an attractive use of cash versus risky investments.
    + Economic uncertainty has led management to conserve cash where possible via a pause on share buybacks.

VII. Part G: Cost of Capital and Capital Structure

1. Capital Structure and Cost of Capital Calculation

- Introduce the concept and formula of WACC (Weighted Average Cost of Capital). Explain the significance of WACC in determining the cost of capital for a company.

$$\text{WACC} = w_D \cdot r_D \cdot (1 + t) + w_E \cdot r_E$$

Where:

w_D: weights of debt

r_D: cost of debt

w_E: weights of equity

r_E: cost of equity

t: tax rate

- Obtain information on the company's capital structure and then break down the components of the WACC formula to calculate
  + Weight of debts and equity

$$w_D = \frac{\text{Debt}}{\text{Total Capital}} \quad \text{and} \quad w_E = \frac{\text{Equity}}{\text{Total Capital}}$$

  + Cost of Debt: Obtain the cost of debt (Rd) from bond analysis or financial reports.
  + Cost of Equity:

$$\text{Re} = \text{Rf} + \beta \cdot (\text{ERm} - \text{Rf})$$

  + Tax rate: Retrieve effective tax rate from government long-term interest rates for bond.

- Determine the WACC as a percentage.

2. Capital Structure Comparison

2.1 Capital Structures Comparison

- Obtain relevant information on the capital structure percentages for the your company and its competitors. Create a visual representation showcasing the distribution of equity and debt.

- Discuss general strategic considerations for maintaining an equity-centric or debt-centric capital structure. Note if the company tends to favor equity, debt, or a balanced mix.

Example

Maintaining low leverage preserves financial flexibility and insulates companies from insolvency risk. However, higher equity financing can increase cost of capital. All three automakers exhibit equity-centric capital structures, with debt percentages ranging from only 20-40%.

2.2 Discuss capital structure determinants

- Strategic Implications
    + Flexibility and Growth: Explain how an equity-centric structure provides flexibility for future growth, mergers, and acquisitions.
    + Risk Mitigation: Discuss how this strategy aids in mitigating financial risk in specific industries.

Example

- Flexibility and Growth: The high equity levels allow the automakers to retain financing capacity for future investments in new models, technologies, and production facilities as competitive conditions evolve.
- Risk Mitigation: Lower debt reduces financial risk inherent in the capital intensive, cyclical auto industry. This provides stability during economic downturns.

- Investor Preferences Alignment:
    + Highlight the alignment of capital structure decisions with investor preferences for stability and risk management.
    + Discuss potential concerns that might arise with excessive reliance on debt.

Example

Equity-focused financing matches investor expectations for strong balance sheets and risk management in the auto industry. Highly leveraged structures could concern investors.

- Market Dynamics: Discuss market influence
    + Explain the role of market dynamics, including interest rates, in shaping capital structure decisions.
    + Consider how economic conditions impact the choice between debt and equity financing.

Example

Low interest rates in recent years have made debt financing less attractive compared to equity options. Rising rates could shift preferences.

- Comparative Analysis:
    + Benchmarking: Compare the company's capital structure with industry benchmarks.
    + Deviations: Identify any deviations from industry norms and explore potential reasons.

Example

The auto industry average debt level is around 25% - the companies are aligned with typical industry capital structures.

- Unique Business Characteristics:
    + Business Diversification: Discuss how a company's diverse business segments may influence its capital structure.
    + Size and Reach: Explore how company size and international presence impact its capacity to manage debt.

Example

- Business Diversification: Auto manufacturing spans mass market and luxury segments. Different cost and risk profiles may warrant distinct capital structures.
- Size and Reach: Larger, more global automakers can access greater financing options and handle higher debt than smaller regional players.
- Historical Context:
    + Past Financing Choices: Examine how historical financing decisions, market conditions, and investor expectations contribute to the current capital structure.
    + Adaptation Over Time: Analyze any trends or changes in the capital structure over time.

Example

- Past Financing: Toyota and VW have maintained conservative capital structures over time. GM reduced leverage significantly post-bankruptcy.
- Adaptation: The companies adjusted capital structures based on economic conditions and strategic needs.

E. TIPS & TRICKS

1. **Writing Tips:**

- Use clear, concise language that is easy for non-finance readers to understand
- Define any technical terms/acronyms when first introduced
- Use an engaging writing style - avoid excessive passive voice
- Employ headings, bullet points, and other formatting techniques to enhance readability
- Link analysis back to key course concepts/theories when applicable

2. Data Visualization Tips:

- Use charts and graphs to summarize numerical data and illustrate trends
- Choose easy-to-read plot styles like line graphs or bar charts over pie charts or radar plots
- Make sure charts are clearly titled and axes are properly labeled
- Use colors, legible fonts, appropriate data highlighting techniques
- Keep visuals simple and clutter-free for maximum impact

3. Research Tips:

- Utilize a variety of credible sources - company reports, financial websites, industry publications
- Look beyond the company website to get an objective view of performance
- Reference source material using proper citations and attribution
- Perform thorough fact-checking and due diligence on any data used

4. Analysis Tips:

- Go beyond surface-level description - provide deeper interpretation and evaluation
- Highlight key takeaways, insights, and implications from your analyses
- Tie observations back to financial theory and best practices
- Consider alternative perspectives and acknowledge limitations

5. Overall Tips:

- Follow all instructions closely and meet page requirements
- Proofread carefully - check for errors, grammar issues, typos, inconsistencies
- Use professional formatting and design elements to enhance engagement
- Be sure to submit by the due date and time to avoid late penalties!