

## C. DETAILED OUTLINE

### **PART 1 - IMMUNISATION: Cashflow matching portfolio management (Suggested 2000 words)**

#### Part 1.1 (max 30 marks - 1000 words)

- a. The cashflow matching approach to portfolio management.
  - Start by introducing the concept of portfolio management and its significance in the context of bond investments.
  - Explain the cashflow matching approach to portfolio management:
    - + Explain that it involves aligning the cash flows of assets (bonds) with the timing of expected liabilities or obligations.
    - + Describe how it aims to ensure that funds are available when needed to meet specific financial commitments, such as future payments or obligations.

#### **Example:**

- Explanation of Portfolio Management in Bond Investment
  - + Significance: Portfolio management is crucial for optimizing bond investments.
  - + Diversification: It spreads risk by assembling a collection of bonds.
  - + Return Optimization: Balances risk and return for financial goals.
  - + Income Generation: Provides a steady income stream.
  - + Capital Preservation: Protects capital, particularly for future financial needs.
- The Cashflow Matching Approach to Portfolio Management:
  - + Objective: Aligns bond cash flows with future financial obligations.
  - + Matching Cash Flows: Selects bonds with maturities matching payout timing.
  - + Interest Rate Risk: Minimizes risk by matching bond durations with liabilities.
  - + Example: Pension funds use it to ensure predictable income for retirees.
- b. The key issues with using a cashflow matching portfolio management approach.
  - Discuss the challenges and key issues associated with the cashflow matching approach:
    - + Potential difficulties in finding bonds with maturities that precisely match future obligations, especially in volatile markets.

- + Mention the risk of reinvestment, where funds may need to be reinvested at lower interest rates when bonds mature.
  - + Explain how changing interest rate environments can impact the effectiveness of cashflow matching.
- c. Identify and explain the impact of current and emerging technology on the future of bond portfolio management.
- Explore the impact of current and emerging technology on the future of bond portfolio management:
    - + Highlight how technology, such as advanced analytics and AI, can enhance the ability to identify suitable bonds for cashflow matching.
    - + Discuss the role of technology in automating portfolio management tasks, improving efficiency, and reducing human error.
    - + Mention the potential for technology to provide real-time data and analysis, enabling better decision-making in bond portfolio management.

**Example:**

- Enhanced Bond Identification: Advanced analytics and AI can improve bond selection by analyzing vast datasets, helping identify suitable bonds for cashflow matching more accurately.
- Automation of Tasks: Technology can automate various portfolio management tasks, such as trade execution and risk assessment, enhancing efficiency and reducing the risk of human errors.
- Real-time Data and Analysis: Technology provides access to real-time market data and analysis, allowing portfolio managers to make more informed decisions promptly.
- Algorithmic Trading: Algorithms powered by technology can execute trades swiftly and at optimal prices, benefiting the overall portfolio performance.
- Risk Management: Technology-based tools can provide sophisticated risk assessment and stress testing, ensuring better risk management within the portfolio.
- Cost Reduction: Automation and technology can reduce operational costs associated with portfolio management.

Part 1.2 (max 30 marks - 1000 words):

- a. Trading strategy (150 - 200 words)

- Define the overarching trading strategy your group employed to achieve portfolio objectives.
- Discuss the importance of aligning bond maturities with expected future liabilities.
- Highlight the specific objectives you aimed to achieve through your trading strategy.

**Example:**

- Our trading strategy was centered around aligning bond maturities with our anticipated future cash obligations. We aimed to build a bond portfolio that could generate cash flows matching the timing and amounts of our expected liabilities.
- To achieve this, we decided to diversify our portfolio by investing in a mix of short-term, intermediate-term, and long-term bonds. This diversification allowed us to balance yield and risk effectively.
- Our strategy prioritized safety and liquidity for short-term obligations, while we were willing to take on slightly more risk for long-term obligations to potentially achieve higher returns.

b. Transactions explanation (350 - 350 words)

- Bond Selection and Quantity (Approx. 200-250 words):
  - + Explain in detail how you determined the type and quantity of bonds to purchase.
  - + Discuss the analytical methods and criteria used for bond selection, such as considering coupon rates, yield to maturity, and credit ratings.
  - + Provide examples of specific bonds you acquired and the rationale behind each selection.
- Choosing quotations ((Approx. 150-200 words):
  - + Describe the process of choosing quotations for trading.
  - + Explain how you accessed real-time market data, including bid and ask prices.
  - + Provide insights into the factors that influenced your decisions when choosing quotations.

**Example:**

- Bond Selection:
  - + In selecting bonds, we employed rigorous analysis considering various factors.
  - + For instance, for our short-term obligations, we chose highly-rated corporate bonds with short maturities to ensure minimal credit risk and easier liquidity.

- + As an example, we acquired a \$500,000 corporate bond with a AAA credit rating and a 2-year maturity.
- Quotations selection:
  - + To choose quotations for trading, we utilized real-time market data from Refinitiv Eikon, which provided us with up-to-the-minute bid and ask prices.
  - + These quotations allowed us to make informed decisions about when to buy or sell bonds.
  - + For instance, we closely monitored the bid-ask spreads, aiming to enter positions when spreads were narrow, thus minimizing our transaction costs. This approach proved particularly useful when we acquired a 10-year Treasury bond with a narrow spread, reducing our trading expenses.
- c. Key learnings
  - Reflect on the experiences and insights gained during the execution of your trading strategy.
  - Discuss challenges faced, lessons learned, and any adjustments made to the strategy.
  - Emphasize the importance of flexibility and adaptability in executing the strategy effectively.

**Example:**

- During our trading experience, we learned that flexibility is crucial in bond portfolio management.
- Markets can be unpredictable, and conditions may change rapidly. We had to adapt our strategy when we noticed rising interest rates, which affected the pricing of our long-term bonds.
- Our key takeaway was the importance of continuous monitoring and a willingness to adjust our portfolio to changing circumstances.

d. Cost-Efficient Portfolio Construction

- Describe the steps taken to meet the requirement of building the portfolio at the lowest possible cost.
- Discuss considerations such as transaction costs, brokerage fees, bid-ask spreads, and taxes.
- Explain how you optimized your bond purchases to minimize expenses.

**Example:**

- To minimize portfolio costs, we focused on reducing transaction expenses. We employed limit orders to ensure we traded at specific prices, avoiding unfavorable executions.
  - Additionally, we assessed the total cost of ownership, including both explicit costs like brokerage fees and implicit costs like bid-ask spreads.
  - By optimizing our bond selections and timing our trades carefully, we were able to keep our portfolio costs low.
- e. Portfolio management outcome.
- Evaluate the overall outcome of your portfolio management.
  - Discuss the extent to which your bond portfolio effectively matched cash inflows and outflows.
  - Analyze the performance of the portfolio in terms of risk mitigation and liability coverage.

**Example:**

- Our portfolio management approach effectively matched our cash inflows and outflows, especially for our short-term obligations. We successfully met our objective of building a portfolio that aligned with our anticipated liabilities.
- Additionally, our diversification across various maturities provided stability and risk mitigation. However, we did encounter some challenges in managing our long-term bonds when interest rates unexpectedly rose.
- Despite these challenges, our portfolio performed well overall, and we learned valuable lessons about the dynamics of bond markets.

**PART 2 – A future yield curve scenario (max 30 marks - 1000 words)**

1. Forecasting Future Yield Curves
  - *Introduction (Approx. 50 words)*
    - Introduce the purpose of this section, which is to forecast future yield curves for Australian government Bonds.
    - Mention that the analysis is based on a qualitative assessment of projected macroeconomic conditions.

- *Understanding Current Macroeconomic Context (Approx. 150 words)*
  - Analyze the current economic conditions in Australia through analyzing key indicators, including GDP, inflation rate, interest rate, ... and current economic policy
  - Example: Currently, Australia's economy is experiencing moderate GDP growth, with inflation slightly below the central bank's target. The Reserve Bank of Australia (RBA) has maintained a dovish stance to support economic recovery.
- *Key Economic Drivers (Approx. 150 words)*
  - Identify the primary economic factors influencing interest rates in Australia.
  - Example: The key drivers include inflation expectations, RBA's monetary policy decisions, fiscal policies related to infrastructure spending, and global economic trends, particularly trade relations with major partners.
- *Forecast Dates and Timeframes (Approx. 50 words)*
  - Mention the forecast dates provided and the specific timeframes you'll analyze.
- *Qualitative Assessment (Approx. 200 words)*
  - Discuss how you expect economic factors to evolve over the forecasted periods.
  - Example: Over the next year, we anticipate that increased government spending on infrastructure projects will stimulate economic growth. As a result, inflation is likely to rise gradually, leading to potential interest rate hikes by the RBA.
- *Forecasting Yield Curves (Approx. 200 words)*
  - Create yield curve scenarios for each forecasted period based on your qualitative assessments.
  - Example: Given our expectations of rising inflation and interest rates, we project a steeper yield curve one year from now, with higher yields on longer-dated bonds.

## Part 2: Key Issues for Bond Portfolio Management

- *Introduction (Approx. 50 words)*
  - Introduce the purpose of this section, which is to discuss key issues for bond portfolio management resulting from the yield curve scenarios.
- *Interest Rate Risk (Approx. 150 words)*
  - Explain how changes in yield curves expose bond portfolios to interest rate risk.
  - Example: If our forecast of rising interest rates materializes, existing bonds with fixed yields may lose value. Bond portfolio managers must implement strategies to hedge against this risk.

- *Credit Risk (Approx. 150 words)*
  - Describe how yield curve scenarios can affect credit risk.
  - Example: In scenarios where the yield curve flattens, riskier bonds may become less attractive to investors. Portfolio managers need to conduct thorough credit analysis to adjust holdings accordingly.
- *Duration Management (Approx. 150 words)*
  - Discuss the importance of managing bond duration in response to yield curve changes.
  - Example: To reduce sensitivity to interest rate movements in a steeper yield curve environment, portfolio managers may favor shorter-duration bonds.
- *Income Generation (Approx. 150 words)*
  - Analyze how different yield curve scenarios impact income generated by the bond portfolio.
  - Example: A steepening yield curve may offer opportunities for higher yields on longer-dated bonds, potentially increasing income.
- *Liquidity and Trading Strategies (Approx. 150 words)*
  - Address the influence of yield curve forecasts on bond liquidity and trading strategies.
  - Example: In volatile scenarios, certain bonds may become less liquid, requiring portfolio managers to adapt trading approaches to maintain liquidity.
- *Assumption Justification (Approx. 100 words)*
  - Provide a clear description and justification for the assumptions made in the yield curve forecasts.
  - Example: Our assumption of rising inflation is based on recent government announcements of increased infrastructure spending, which historically led to inflationary pressures.

## **D. TIPS & TRICKS**

### **1. Research and Data Collection:**

- Start your research early and gather relevant data from reputable sources such as central banks, financial databases (e.g., Refinitiv Eikon), and international organizations (IMF, World Bank).
- Ensure the data you collect aligns with the years 2021 and 2022, and it's specific to your assigned country or countries (Vietnam and your assigned developed country).

- Use tables and charts to present data when it enhances the understanding of your analysis. Keep in mind that these should complement your text, not replace it.
- Ensure that tables and figures are appropriately labeled, with clear titles and sources cited.

## **2. Professionalism**

- Follow the provided structure and word count limits for each part of the report. Clear organization is essential for academic writing.
- Use headings and subheadings to break down your analysis into sections. Make sure your report is reader-friendly and easy to navigate.

## **3. Writing Tips**

- Write concisely and coherently. Avoid unnecessary jargon and ensure your writing is clear and understandable.
- Use proper grammar and punctuation. Proofread your work to eliminate spelling and grammatical errors.

## **E. FOOD FOR HUNGRY THOUGHTS**