THE UNIVERSITY OF THE WEST INDIES
FIVE ISLANDS CAMPUS

Semester II

Examinations of APRIL/MAY 2023

Course Code:	**MGMT3076**
Course Title:	**Managing Financial Institutions**
Date of Assessment:	**Monday 8th May, 2023**
Time:	**4:00 p.m.**
Duration:	**Two (2) Hours**

INSTRUCTIONS TO CANDIDATES:

This paper has 3 pages and 6 questions.

YOU ARE REQUIRED TO ANSWER 6 QUESTIONS.

THIS ASSESSMENT IS WORTH 60% OF YOUR FINAL GRADE.

ASSESSMENT DETAILS FROM INSTRUCTOR(S):

CANDIDATES ARE REQUIRED TO ANSWER ALL (6) QUESTIONS.

1. **(a)** Why are FIs consistently interested in the expected level of economic activity in the markets in which they operate? Why is monetary policy of the Federal Reserve System important to FIs? **(5 marks)**

   (b) Suppose there were two factors influencing the past default behavior of borrowers: the leverage or debt–assets ratio (*D/A*) and the profit margin ratio (*PM*). Based on past default (repayment) experience, the linear probability model is estimated as:

   $$PD_i = 0.105(D/A_i) - 0.35(PM_i)$$

   Prospective borrower A has a $D/A = 0.65$ and a $PM = 5\%$, and prospective borrower B has a $D/A = 0.45$ and $PM = 1\%$. Calculate the prospective borrowers' expected probabilities of default (PD_i). Which borrower is the better loan candidate? Explain your answer. **(5 marks)**

2. **(a)** Consider the following balance sheet positions for a financial institution:

   - Rate-sensitive assets = \$200 million. Rate-sensitive liabilities = \$100 million
   - Rate-sensitive assets = \$100 million. Rate-sensitive liabilities = \$150 million
   - Rate-sensitive assets = \$150 million. Rate-sensitive liabilities = \$140 million

   Given that :

   $$\Delta NII_i = (GAP_i)\,\Delta R_i = (RSA_i - RSL_i)\,\Delta R_i$$

   (i) Calculate the repricing gap and the impact on net interest income of a 1 percent increase in interest rates for each position.

   (ii) Calculate the impact on net interest income on each of the above situations assuming a 1 percent decrease in interest rates. **(5 marks)**

   (b) A mutual fund is being advertised as having no risk exposure since its investments are comprised solely of default risk-free government securities. Do you think that this assertion is true? Why or why not? **(5 marks)**

3. **(a)** What risks are incurred in making loans to borrowers based in foreign countries? Explain. **(5 marks)**

   (b) What motivates FIs to hedge foreign currency exposures? What are the limitations to hedging foreign currency exposures? **(5 marks)**

4. **(a)** What are the links among the various areas of risk exposure by FIs? If an FI employs a model to manage and measure one type of risk, why would this be an incomplete approach to limiting exposure to risks? **(5 marks)**

(b) Assume that you are responsible for liquidity management and reserves at a bank that you are managing. The Central Bank has taken the decision not to pay interest on excess reserves, which you may be holding there. You decide that you will only hold required reserves with the Central Bank. Outline the costs that you will bear if deposit outflows occur, and you have insufficient reserves. Would you borrow from other banks, sell loan portfolio, or sell some securities? **(5 marks)**

5. Identify the disparities between operational risk and technology risk. Do you think that operational risk will increase if payments systems are internationalised among banks? Why or why not? **(10 marks)**

6. **(a)** How do the asset and liability structures of a savings institution compare with the asset and liability structures of a commercial bank? How do these structural differences affect the risks and operating performance of a savings institution? **(5 marks)**

(b) Outline and describe the benefits of off-balance-sheet activities to an FI. Identify the risks created by these activities and provide details as to how these risks can produce fluctuating levels of financial problems for the FI in the future. **(5 marks)**

END OF QUESTION PAPER