NATIONAL UNIVERSITY OF SCIENCE AND TECHNOLOGY
FACULTY OF COMMERCE
DEPARTMENT OF BANKING

BANK LENDING AND CREDIT RISK MANAGEMENT II
CBA 4206

FINAL EXAMINATION **MAY 2008**

TIME: 3 HOURS

INSTRUCTIONS TO CANDIDATES

Answer any FOUR (4) questions.

Indicate on your answer booklet whether you are in the conventional or parallel programme.

INFORMATION FOR CANDIDATES

The number of marks is given in brackets [ ] at the end of each question or part question.

Questions may be written in any order, but must be legibly numbered.

The businesses in this question paper are intended to be fictitious.

This paper consists of 5 printed pages

[Turn over]

QUESTION 1

(a) What are the components of a typical risk management process in a banking Institution? **[3 Marks]**

(b) Describe in detail, the two basic risk management processes that banking institutions could use in managing risks. **[10 Marks]**

(c) Identify and discuss the levels at which "operational risks" could occur; and discuss the extent to which you think banks in Zimbabwe are exposed to operational risk. **[10 Marks]**

(d) Explain why it is important for banks to separate the risk managing units from the business generating units. **[2 Marks]**

TOTAL **[25 MARKS]**

QUESTION 2

a) Write a brief overview of the Asset-Liability Management (ALM) function and list its specific activities. **[7 Marks]**

(b) You are the Finance manager of a bank with total assets of $60 billion. While recent earnings have been above expectations, top management are worried that changes in market interest rates could have an adverse effect on these earnings, given that the bank's Balance Sheet is largely interest rate sensitive.

The Bank's Income Statement and Balance Sheet for the quarter ending 31 March 2008 are as follows:

INCOME STATEMENT FOR QUARTER ENDING 31/03/08
(In thousands of dollars)

Interest Income:	
Income on Amounts held by Reserve Bank	30 000
Interest on Money Market Investments	438 000
Interest and fees on loans	1 320 000
	1 788 000
Interest Expense:	
Interest on Deposits	732 000
Net Interest Income	1 056 000
Provision for Doubtful debts	54 000
Net Interest Income after Provision for Doubtful Debts	1 002 000
Other operating income	174 000
	1 176 000
Other Operating Expenses	621 600
Earnings before taxes	554 400
Income taxes	188 400
Net Earnings	366 000

BALANCE SHEET AS AT 31/03/2008
(In thousand of dollars)

ASSETS		**LIABILITIES AND EQUITY**	
Cash and Due from other banks	3 300 000	**Deposits:**	
Balances with Reserve Bank	1 500 000	Interest Bearing	41 400 000
Investments	1 500 000	Non Interest Bearing	12 000 000
Net loans	37 800 000	Total Deposits	53 400 000
Premises and Equipment	1 500 000	Accruals and other liabilities	1 800 000
Interest receivable	600 000	Total liabilities	55 200 000
Other Assets	300 000	Stockholders Equity	4 800 000
	60 000 000		60 000 000

Notes and Assumptions

1) Interest bearing deposits are made up of $15 billion in Savings and the rest are in Certificates of Deposits.
2) Investments are all fixed rate and mature in equal quarterly amounts over the next five years.
3) Variable rate loans which constitute 40% of the Net loans are indexed to the bank rate and subject to immediate re-pricing.
4) Fixed rate loans mature in equal quarterly amounts over the next four years.
5) Savings accounts are not tied to a specific index but are subject to re-pricing anytime.
6) Certificates of Deposit are all fixed rate and mature in equal quarterly amounts over the next two years.

Required

(i) Using the assumptions above, prepare a tabular comparison report of the bank's Rate Sensitive Assets (RSA) and Rate Sensitive Liabilities (RSL) over the following re-pricing periods:

- Re-pricing immediately;
- Re-pricing within 3 months;
- Re-pricing within 12 months,
- Re-pricing within 24 months and
- Re-pricing after 24 months,

and calculate the liquidity gap and gap ratio for each re-pricing period, giving a brief interpretation of the results. **[10 Marks]**

(ii) Given your answer to (i) above, determine what effect a 5 percentage point annualised decrease in market rates would have on the bank's net interest income over the next 90 days, and make a brief comment on the bank's interest rate risk exposure given the following:

- In the past the savings rate of the bank has changed by only half the magnitude of the market rate changes and this trend is expected to continue.
- Other operating income and expenses along with provision for doubtful debts are interest rate insensitive in the short term.
- The bank uses a 360 day year for purposes of interest calculations.

[8 Marks]

TOTAL [25 MARKS]

<u>QUESTION 3</u>

(a) Describe the four major models that banks can use to manage credit risks .**[8 Marks]**

(b) State and discuss the four major Risk Rating systems that banks can use in their credit processes. **[12 Marks]**

(i) Identify any three credit risk drivers that may be used as inputs in credit risk models. **[3 Marks]**

(ii) Beyond measuring risk, what are the other purposes of credit risk valuation? **[2 Marks]**

TOTAL [25 MARKS]

<u>QUESTION 4</u>

Clarify the role of forecasting in credit analysis and describe in detail two different types of techniques that banks can use in forecasting.

TOTAL [25 MARKS]

<u>QUESTION 5</u>

(a) (i) Briefly describe the "Traditional Pricing Technique" for pricing loans. **[6 Marks]**

(ii) Identify and explain four of the major fees that are levied by banks using the above loan pricing technique. **[4 Marks]**

(b) Explain why it is potentially dangerous for a bank to price loans based on each of the following:-

- (i) Matching the competitor's price **[3 Marks]**
- (ii) Assigning more importance to volume than price **[3 Marks]**
- (iii) Pricing based on marginal cost **[3 Marks]**
- (iv) Under-pricing so as to get repeat business **[3 Marks]**
- (v) Assuming that loan risk is equal to default risk **[3 Marks]**

TOTAL [25 MARKS]

QUESTION 6

(a) What are the advantages of each of the following as tools for improving the credit quality of the loan book?

- (i) Conventional loan sales **[12 Marks]**
- (ii) Securitisation **[6 Marks]**

(b) Why would banks in Zimbabwe not use these techniques? **[7 Marks]**

TOTAL [25 MARKS]

QUESTION 7

"Predictive modelling can help banks control costs, limit the number of non performing loans in their portfolios and also prevent financial distress" Discuss.

TOTAL [25 MARKS]