NATIONAL UNIVERSITY OF SCIENCE AND TECHNOLOGY
FACULTY OF COMMERCE
DEPARTMENT OF BANKING
BACHELOR OF COMMERCE HONOURS DEGREE IN BANKING

ADVANCED INTERNATIONAL BANKING [CBA 4205]

SUPPLEMENTARY EXAMINATION AUGUST 2010

TIME: 3 HOURS

INSTRUCTIONS TO CANDIDATES

- Answer any **FOUR (4)** questions
- Start the answer to each question on a fresh page of the answer sheet.
- Indicate on your answer booklet whether you are in the conventional or parallel programme
- Show all workings
- Questions may be written in any order, but must be legibly numbered.

INFORMATION FOR CANDIDATES

- The paper contains SIX (6) questions.
- All questions carry equal marks [25 marks].
- The businesses in this question paper are intended to be fictitious.

This paper consists of 8 printed pages

Turn over

QUESTION 1

The following is an extract from Citigroup banks comprehensive financial statement as at 31 December 2009

Intangible assets	
Goodwill	27 581
Other disallowed intangible assets	6725
50% investment in other subsidiaries	45
Other	548
Noncurrent liabilities	
Qualifying debt	13573
Allowance for credit losses	9545
Equity	
Common stockholders' equity	96 889
Qualifying perpetual stock	1125
Qualifying mandatory redeemable securities of Subsidiary trusts	6257
Minority Interest	1158
Unrealized gains on securities available for sale	2908
Unrealized marketable equity securities gains	399
Accumulated net gains on cash flow hedges net of tax	751

a) Given that the Risk adjusted assets are equal to $ 750 293 calculate

i. Tier I capital [6 marks]

ii. Tier II Capital [3 marks]

iii. Tier I capital ratio [2 marks]

iv. Total capital ratio [3 marks]

v. Capital adequacy Ratio [3 marks]

b) For each finding briefly comment on the implications to Citibank

[3 marks]

c) Which other instruments do you think can be used successfully for bank regulation in Zimbabwe? [5 marks]

TOTAL [25 MARKS]

QUESTION 2

In customer- related derivatives trading activities, banks engage in a combination of three methods. The relative mix of these three methods, to a large extent determines not only the magnitude of the market risk of the individual banks derivative trading but because of the derivative dealers' market dominance, this mix also drives total derivative risk.

a) Discuss the three methods that are used by the banks to attain the characteristics mentioned in the above statement in financial institutions. [6 marks]

b) How can the derivative risk matrix be used to assist in the ranking of derivative activities? [9 marks]

c) How can the risks that are common to derivative trading be successfully managed by financial institutions? [10 marks]

TOTAL **[25 MARKS]**

QUESTION 3

a) Clearly distinguish between an Interest rate swap and a currency swap [5 marks]

b) A three-year swap was initiated on 5 March 2006 between Microsoft and Intel. Microsoft agreed to pay Intel an Interest rate of 5% per annum on a notional principal of $100 million and in turn Intel agreed to pay Microsoft the six-month LIBOR rate on the same notional principal. The agreement specifies that the payments will be exchanged every six months and the 5% interest rate is quoted with semiannual compounding. Suppose that the LIBOR rates in the following years are:

March 5 2006	4.2%	September 5 2006	4.8%
March 5 2007	5.3%	September 5 2007	5.5%
March 5 2008	5.9%	September 5 2008	6.4%
March 5 2009	6.4%		

i. Illustrate how the swap will be represented diagrammatically [2 marks]

ii. Illustrate through the use of a table the payments that are going to be received and paid out by Microsoft and the subsequent net cash flow during the duration of the swap [6 marks]

c) Suppose that Microsoft has arranged to borrow $100 million plus 10 basis points, with the hope of transforming a floating rate loan into a fixed rate loan. After Microsoft has entered into the swap

i. What are the three cash flows that Microsoft will undertake on initiation of the swap? [3 marks]

ii. Illustrate the swap diagrammatically after Microsoft and Intel use the swap to transform a liability [1 mark]

iii. What is the net effect of the two companies using the swap to transform a liability? [2 marks]

d) Suppose that five year fixed rate borrowing costs to General Motors and Qantas Airways in US dollars (USD) and Australian dollars (AUD) are shown in the table below:

	USD	AUD
General Motors	5.0%	12.6%
Qantas Airways	7.0%	13.0%

Suppose that General Motors wants to borrow 20 million AUD and Qantas Airways wants to borrow 20 million in USD. Design a currency swap that will transform General Motors' loan into an AUD loan and Qantas Airways loan into a USD loan.

Clearly show their gross saving and net saving given that the swap dealer charges 0.250% p.a. Assume that the saving is shared equally [6 marks]

TOTAL **[25 MARKS]**

QUESTION 4

a) Bill Gillespie, an arbitrager with Bank of Auckland, faces the following New Zealand dollar/ US dollar quotes:

Spot rate NZ$1.4393/$

Six month forward rate NZ$1.4637/$

Six month New Zealand dollar Interest rate 8.0% p.a.

Six month US dollar Interest rate 5.5% p.a.

Bill is authorised to use NZ$ 20 000 000 or its equivalent. Transaction costs would be $2700 paid at the end of 6 months. The ending profit, if any, should be realized in New Zealand dollars. Assuming Bill can borrow or invest at the above interest rates, how can he complete a covered Interest arbitrage? What will his profit be? [10 marks]

b) The following information measures the prices of McDonalds Standard hamburger in different countries

countries	Big Mac price in local currency	Actual exchange rate
United States	2.42	-
Argentina	Peso 2.50	1.00
Belgium	BFR 109	35.3
Canada	C$2.88	1.39
Denmark	DKr 25.75	6.52
South Africa	ZAR 7.80	4.43
Sweden	SKr26.0	7.72
Thailand	Baht46.7	26.1

Calculate Hamburger purchasing power parity exchange rates for:

(i) Peso/USD [1 mark]

(ii) BFR/USD [1 mark]

(iii) ZAR/USD [1 mark]

(iv) SKr/USD [1 mark]

(v) Baht/USD [1 mark]

c) Which of the above currencies are overvalued or undervalued? What does it mean if the currency is over or under valued? [5 marks]

d) The United States and France both produce Cabernet Sauvignon wine. A bottle of Cabernet Sauvignon sells in the United States for $18. An equivalent bottle sells in France for FFr 100

(i) According to the purchasing power parity, what should be the USD/ French Franc spot rate of exchange? [1 mark]

(ii) Suppose the price of Cabernet Sauvignon in the US is expected to rise to $20 over the next year while the price of a comparable bottle of French wine is expected to rise to FFr 18. What should be the one year forward US dollar/FFr franc exchange rate? [1 mark]

e) Given your answers in (i) and (ii) above and that the current interest rate in the United states is 6% for notes of 1 year maturity, what would you expect the current French interest rate to be? [3 marks]

TOTAL **[25 MARKS]**

QUESTION 5

(a) A Singapore based Company imports a significant portion of its needs from the United States. It is invoiced in US$ and it forecasts the following imports from the US supplier:

- In one months time US$10m
- In two months time US$17,5 m
- In three months time US$ 16m

A bank quotes US$/ SG$ spot and forward points as follows:

	BID	OFFER
Spot	1.8252	1.8262
One month	52	42
Two months	74	63
Three months	94	82
Six months	120	107

(i) Calculate the relevant forward rate to cover the exposure [3 marks]

(ii) How much SG$ cash will the importer need to pay? [3 marks]

(iii) Supposing that the three months spot rate is US$/SG$ has moved to 1, 93, what would be opinion of the above strategy? [2 marks]

(b) The same company forecasts a payment of US$10 million in six months time. It decides to use options to cover the exposure, it is quoted a premium of 2.5% of the US$ notional amount for a six month option with a strike price at the forward rate.

(i) What will be its breakeven rate for the strategy to work? [5 marks]

(ii) What will the company do if in 6 months time the US$/SG$ rate is :

a. 1.9210/1.9220;

b. 1.7516/1.752 ? [5 marks]

(c) Compare and contrast a futures and a forward contract. How effective are they in their use as hedging instruments? [7 marks]

TOTAL **[25 MARKS]**

QUESTION 6

(a) Critically evaluate the need for safety nets such as Prudential supervision and depositors schemes in a country like Zimbabwe [10 marks]

(b) "Effective supervision and regulation of financial institutions is an essential component of a strong economic environment, while the cost of bank regulation is high, the cost of poor or no supervision is even higher." Discuss the above statement, highlighting the main objectives of regulation and supervision in the Zimbabwean economy [10 marks]

(c) What are the major short comings of using Industry support and private insurance as a safety net for financial institutions [5 marks]

TOTAL [25 MARKS]