

**NATIONAL UNIVERSITY OF SCIENCE AND  
TECHNOLOGY  
FACULTY OF COMMERCE  
DEPARTMENT OF BANKING  
BACHELOR OF COMMERCE HONOURS DEGREE IN  
BANKING  
BANKING AND FOREIGN EXCHANGE  
CBA 2202**

**FINAL EXAMINATION**

**AUGUST 2009**

**TIME: 3 HOURS**

**INSTRUCTIONS TO CANDIDATES**

- The paper contains **SIX (6)** questions.
- Answer any **FOUR (4)** questions.
- All questions carry equal marks [**25 marks**].
- 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.

**INFORMATION FOR CANDIDATES**

**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 4 printed pages**  
Copyright: National University of Science and Technology

**Turn over]**

## **QUESTION 1**

Assume that Zimbabwe invests heavily in Government and Corporate Securities of Mozambique. In addition, residents of Mozambique invest heavily in Zimbabwe. Approximately US\$ 10 billion worth of investment transactions occur between these two countries each year. The total dollar value of trade transactions per year is about US\$8 million. This information is expected to also hold in the future.

Your client, Pombiyadonha Holdings exports goods to Mozambique. They require your bank to forecast the value of Mozambique's currency (*the meticas*), with respect to the dollar. Explain how each of the following conditions will affect the value of the *meticas*, holding other things equal.

a) Zimbabwe inflation has suddenly increased substantially, while Mozambique inflation remains low.

**[5 marks]**

b) Zimbabwe interest rates have increased substantially, while Mozambique's interest rates remain low. Investors of both countries are deemed rational.

**[5 marks]**

c) Zimbabwe's income level has increased substantially, while Mozambique's income level has remained unchanged.

**[5 marks]**

d) Zimbabwe is expected to impose a small tariff on goods imported from Mozambique.

**[5 marks]**

e) Combine all expected impacts to develop an overall forecast.

**[5 marks]**

**TOTAL**

**[ 25 MARKS]**

## **QUESTION 2**

A call option on Canadian dollars with a strike price of \$, 60 is purchased by a speculator for a premium of \$, 06 per unit. Assume there are 50 000 units in this option contract.

i) If the Canadian dollar spot rate is \$, 65 at the time the option is exercised, what is the net profit per unit to the speculator?

**[5 marks]**

ii) What is the net profit for one contract?

**[5 marks]**

iii) What would the spot rate need to be at the time of the option is exercised for the speculator to break even?

**[5 marks]**

- iv) What is the net profit per unit to the seller of this option? **[5 marks]**
- v) What factors affect currency call option premiums? **[5 marks]**
- TOTAL [25 MARKS]**

### **QUESTION 3**

Assume the Reserve Bank of Zimbabwe (RBZ) believes that the dollar should be weakened against the Mozambican *meticas*. Explain how the RBZ could use direct and indirect intervention to weaken the dollar's value with respect to the *meticas*. Assume that future inflation in Zimbabwe is expected to be low, regardless of the RBZ's actions. **[25 marks]**

**TOTAL [ 25 MARKS]**

### **QUESTION 4**

a) Assume the following information:

	<i>Bank Vuka</i>	<i>Bank Donha</i>
Bid Price of New Zealand dollars	\$, 401	\$, 398
Ask Price of New Zealand dollars	\$, 404	\$, 400

Given this information, is arbitrage possible? If so explain the steps involved in locational arbitrage, and compute the profit from this arbitrage if you had \$1 000 000 to use.

**[12 marks]**

b) You are further given the following information:

Spot rate of Canadian dollar	= \$, 80
90 day forward rate of Canadian collar	= \$, 79
90 day Canadian Interest rate	= 4%
90 day US interest rate	= 2, 5%

Given this information, what would be the yield (percentage return to a US investor who used covered interest arbitrage? Assume an investment of \$1 000 000. **[13 marks]**

**TOTAL [ 25 MARKS]**

### **QUESTION 5**

a) Suppose that the spot quote on the Swiss Franc (CHF) is \$, 3302-10 and the Spot quote on the Swedish kroner (SWK) is \$, 1180-90.

i) What is the direct spot quote in Zurich? **[6 marks]**

ii) Compute the percentage bid-ask spread on the CHF and the SWK **[6 marks]**

iii) Compute the forward discount or premium for the CHF, given additional information that the 90 day forward rate is \$, 3305 and the Spot rate is \$, 3302. State whether your answer is a discount or a premium. **[7 marks]**

b) Assume Poland's currency, the zloty is worth \$, 17 and the Japanese yen is worth \$, 008. What is the cross rate of the zloty with respect to the yen? **[ 6 marks]**

**TOTAL [ 25 MARKS]**

### **QUESTION 6**

Boeing Commercial Airplane Company manufactures all its planes in the US and prices them in USD even though 50% of its sales are destined for overseas i.e. non- US markets. Assess fully, Boeing's currency risks and in each instance, describe how Boeing can cope with currency risks. **[25 marks]**

**TOTAL [25 MARKS]**