

**INSTITUTE OF BANKERS IN MALAWI**

**ADVANCED DIPLOMA IN BANKING EXAMINATION**

**SUBJECT: TREASURY MANAGEMENT 2 (IOBM – AD 309)**

**Date: Tuesday, 24th November 2020**

**Time Allocated: 3 Hours (13:30 – 16:30 pm)**

**INSTRUCTIONS TO CANDIDATES**

1 This paper consists of **TWO** Sections, A and B.

2 Section A consists of 4 questions; each question carries 15 marks. Answer **ALL** questions.

3 Section B consists of 3 questions; each question carries 20 marks. Answer **ANY TWO** questions.

4 You will be allowed **10 minutes** to go through the paper before the start of the examination when you may write on this paper but not in the answer book.

5 Begin each answer on a new page.

6 **Please write your examination number on each answer book used. Answer sheets without examination numbers will not be marked.**

7 All persons writing examinations without payment will risk expulsion from the Institute.

8 If you are caught cheating, you will be automatically disqualified in all subjects seated this semester.

9 DO NOT open this question paper until instructed to do so.

**SECTION A (60 MARKS)**

Answer **ALL** questions from this section

**QUESTION 1**

1. Provide **two** advantages of using stock options to hedge equity risk over a futures contract.  *(4 marks)*
2. Explain how an investor can hedge a long stock position against downside risk using the following stock option strategies:
   1. Purchase put (Protective Put) *(3 marks)*
   2. Covered call option writing *(3 marks)*
3. Reflex Plc, a US company has just bought an option cap contract on its long term debt with the following terms:

Cap Premium US$ 285,000

Notional Principal US$10 million

Cap exercise price 5.0%

Reference rate LIBOR

Term 3 Months

**Required**

Calculate the Cap net payoff for the following outcomes;

* 1. LIBOR is 3.5% at expiration *(2 marks)*
  2. LIBOR is 8.5% at expiration *(3 marks)*

**(Total 15 marks)**

**QUESTION 2**

The following table of exchange rates is observed from one of the local banks:

|  |  |  |
| --- | --- | --- |
|  | Bid | Ask |
| USD/GBP | 1.3257 | 1.3262 |
| USD/EUR | 1.1370 | 1.1375 |
| CAD/USD | 1.3036 | 1.3140 |
| CHF/USD | 0.9981 | 0.9991 |
| NOK/USD | 8.5573 | 8.5577 |
| ZAR/USD | 14.0153 | 14.0263 |

***Note:*** *The base is the second currency in the quote*

**Required**

1. Determine the two-way ZAR/GBP quote. *(2 marks)*
2. If the 6 months forward points for the NOK/USD are 48/43, and the 6 months points for the CHF/USD are 133/143. What is the 6 months NOK/CHF?  *(5 marks)*
3. Calculate the rate at which you would buy GBP 90 days forward if 3 months USD and GBP interest rates are 3.25% and 2.85% respectively. *(3 marks)*

NB; USD and GBP days’ basis are 360 and 365 days respectively.

1. Prime Bank Ltd is quoting CAD/EUR at 1.4952/1.4995, determine the triangular arbitrage profit on a notional principal of EUR130 million. *(5 marks)*

**(Total 15 Marks)**

**QUESTION 3**

1. What is the link between bond stripping and zero coupon bonds? *(3 marks)*
2. The Monetary Policy Committee (MPC) of the Reserve Bank of Malawi recently revised downwards the Policy Rate and most bond investments saw interest rates coming down.

Briefly explain the applicability of the following instruments in this interest rate environment to hedge interest rate risk.

* 1. Putable bond  *(4 marks)*
  2. Callable bond  *(4 marks)*

**Note:** You are required to identify the appropriate market participant using the instrument, i.e. borrower or lender.

1. A Malawian company is borrowing at 16.5% and has the option of a US Dollar denominated loan from its bankers at the rate of 8.25%. The Company’s Chief Economist expects that the US Dollar will depreciate by 3.2% over the current financing period.

**Required**

Calculate the effective US Dollar financing rate and determine the US Dollar appreciation/depreciation that would make the company indifferent between either a MW Kwacha or US Dollar loan facility. *(4 marks)*

**(Total 15 marks)**

**QUESTION 4**

1. Provide a brief explanation of how the following commodity risks would affect a Malawian tobacco farmer and suggest **one** way of minimizing the impact;
2. Currency Risk  *(4 marks)*
3. Purchaser Default Risk *(4 marks)*
4. A bond dealer has the following zero coupon bond yields displayed on its trading board:

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Maturity | 1  Year | 2 Years | 3 Years | 4 Years | 5 Years | 6 Years | 7  Years | 8 Years | 9 Years |
| Annual Yield | 5.0% | 5.8% | 6.5% | 7.1% | 7.6% | 8.0% | 8.3% | 8.5% | 8.6% |

**Required**

Calculate the price you would pay for a US$ 2.5 million face value bond with 8 years to maturity and a 5% annual coupon. Show your calculations. *(7 marks)*

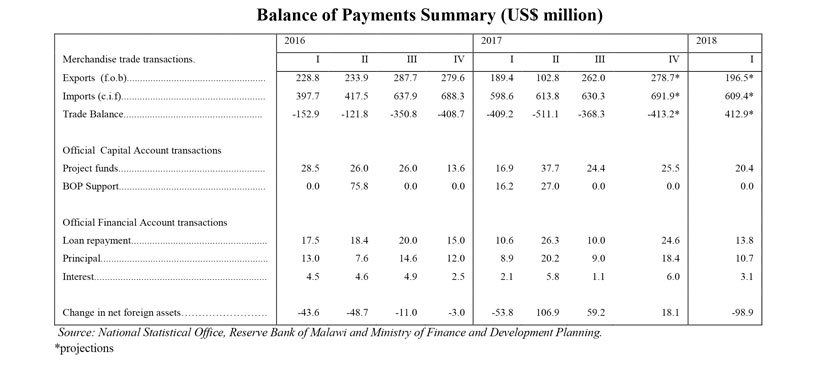
**(Total 15 marks)**

**SECTION B (40 MARKS)**

Answer **ANY TWO** questions from this section

**QUESTION 5**

Refer to the table of Balance of Payments extract from a Reserve of Malawi (RBM) report below;



1. A senior official from the Ministry of Finance was reached for comments on the outcomes in the table above and was quoted as saying, *‘’…..Our major challenge as a country is attracting foreign direct investment, this would go a long way in improving our global competitiveness if we can achieve that.’’*
   1. Define Foreign Direct Investment (FDI) and identify where on the simplified Balance of Payments extract above these transactions will be recorded. *(4 marks)*
   2. How will FDI improve Malawi’s competiveness on the Global market? *(6 marks)*
2. With reference to only the Merchandise trade transactions of the table, discuss the implications to the local currency competitiveness against major trading currencies of the period 2016 – 2017 outcomes. *(10 marks)*

**(Total 20 marks)**

**QUESTION 6**

1. Two companies face the following borrowing costs

|  |  |  |  |
| --- | --- | --- | --- |
| ENTITY | FIXED RATE | FLOATING RATE | NOTES |
| Bolts & Nuts Plc | 7.0% | LIBOR | * Company borrowed fixed at 7.0% but prefers to borrow floating. * Willing to receive 8.5% fixed under a swap |
| Metal Works Ltd | 12.0% | LIBOR + 2.0% | * Company borrowed floating at LIBOR+2.0% but prefers to borrow fixed. * Willing to receive LIBOR under swap |

**Required**

Demonstrate how the companies can structure a swap arrangement to lower their respective borrowing costs. *(10 marks)*

1. Discuss any **three** elements of the Country Risk Management Process that a multinational corporation uses to systematically evaluate country risk elements of its business.  *(10 marks)*

**(Total 20 marks)**

**QUESTION 7**

1. On 19-20 January 2019, the Monetary Policy Committee (MPC) met and resolved to reduce the Policy Rate from 16.0% to 14.5%.

**Required**

Comment on the practical implications of the new policy directive with respect to:

1. Credit flow to the private sector *(5 marks)*
2. Local currency competitiveness  *(5 marks)*
3. Describe the relationship between the commodity spot and futures prices*.(4 marks)*
4. Critique why the model formula for the calculation of the futures price based on cost of carry may not hold in the real world. *(6 marks)*

**(Total 20 marks)**

**QUESTION 8**

1. On 2 September 2018 a manager purchased 10,000,000 South African rand (ZAR) three months forward at ZAR/USD 9.4518. A month before contract expiration the manager decides to extend the transaction for another 30 days.

|  |  |  |
| --- | --- | --- |
| DATE | CONTRACT | EXCHANGE RATE |
| 02 September 2018 | 3 Months Forward | ZAR/USD 14.3575 |
| 02 November 2018 | 1 Month Forward | ZAR/USD 14.1250 |
|  | 2 Months Forward | ZAR/USD 14.4025 |

**Required**

i) Explain the how the manager would use the contracts in the table above to implement this decision.  *(4 marks)*

ii) Calculate the manager’s effective cost for rolling over the trade. *(6 marks)*

1. Discuss the arguments for and against hedging foreign exchange exposure.

*(10 marks)*

**(Total 20 marks)**

**END OF THE EXAMINATION PAPER**