



THE CATHOLIC UNIVERSITY OF EASTERN AFRICA

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MAIN EXAMINATION

JANUARY – APRIL 2014 TRIMESTER

FACULTY OF COMMERCE

MBA- PROGRAMME

CFI 612: INTERNATIONAL FINANCE AND DERIVATIVE SECURITIES

Date: APRIL 2014

Duration: 3 Hours

INSTRUCTIONS: Answer ALL Questions

- Q.1 Your company has a £15 million deposit that is due to mature in four months time on 15 December 2011. This amount has been earmarked for investment in new plant for which payment is due in March 2012 your bank has warned you that there is a strong possibility that interest rate may fall before the funds are reinvested in December and you have decided to hedge the reinvestment rate to protect your position.

Market information available today, 15 August 2011.

3 months LIBOR
Today $6\frac{27}{32} - \frac{25}{32}$

FRA
4V7 7.05%

LIFFE 3 – month sterling futures	
December	92.95
Unit trading	£500000
Initial margin	£750
Tick size	0.01%

December interest rate options (3 month contract)		
Strike price	Calls % pa	Puts % pa
7.5%	0.41	0.02
7.0%	0.09	0.15
6.5%	0.01	0.47

Required:

- a) Which of the interest rate option contracts quoted above would give the best hedge result if three months LIBOR were to fall to 5.75% by 15 December 2011? **(5 marks)**
- b) Assuming that on 15 December 2011 the outturn LIBOR rate is 5.75% evaluate the three alternative hedge structures, FRAs, Future and Options and tabulate the resultant (comparable) cash flows **(12 marks)**
- c) What other factors would you take into account when drawing up a hedging strategy for your company? **(8 marks)**

Q2. As part of a long term risk assessment exercise, you have obtained the following interest rate and inflation forecasts from your bank.

Inflation data:	2005	2006	2007	2008	2009
Kenya annual inflation	12%	13%	14%	14%	14%
Uganda annual inflation	15%	16%	17%	17%	17%
Interest rate data					
Kenya annual interest rate	15%	16%	17%	17%	17%
Uganda annual interest rate	17%	17%	17%	17%	17%

The spot rate for KES/USH at close of business on 31 December 2004 was 15.

Required:

- a) Calculate the KES/USH spot rates as at 31 December in each of years 2005 to 2009 implied by the forecast data provided on:
- i) Inflation rates **(10 marks)**
- ii) Interest rate **(10 marks)**
- b) What other factors should be considered and how are they taken into account when producing a long term forecast for KES/USH spot rates? **(5 marks)**
- Q3. The most widely used derivative which emerged in the 1980s is a Swap covering both interest rate and currency risk and has arguably had a more far reaching and fundamental impact on financial risk management than any other financial innovation.

You are given the following case. Two companies are able to borrow at the following rates:

Floating

Upper Ltd LIBOR + 0.5%

Lower Ltd LIBOR + 1.5%

Fixed

6%

8%

Upper Ltd requires a floating rate of finance and Lower Ltd requires a fixed rate to finance.

Required:

- a) Construct an IRS and define IRS to show how the above companies could cooperate to their mutual advantage/benefit while both are raising external funding and draw a diagram to represent the IRS. **(20 marks)**
- b) What are the pros and cons of arranging a swap through a bank as intermediary rather than with counterparty directly? **(5 marks)**

Q4. "Purchasing Power Parity (PPP)" theory is one of the theories that explain reasons underlying changes in exchange rates and interest rates to ensure a level playing ground in the process of identical goods and services across countries.

Required

- a) Describe the purchasing power parity theory and indicate practical problems that render the theory impractical. **(15 marks)**
- b) i) Calculate the rate at which a corporate could buy USD and sell JPY six months forward.
- ii) Buy JPY and sell CAD six months forward.

Market data

	USD/JPY	USD/CAD
Spot rate	113.995/060	1.1134/46
Six months points	3167/3121	18/21

(10 marks)***END***