KENYATTA UNIVERSITY

UNIVERSITY EXAMINATIONS 2017/2018

FIRST SEMESTER EXAMINATION FOR THE DEGREE OF MASTER OF ECONOMICS (FINANCE)

EAE 812: INTERNATIONAL FINANCE

DATE: Monday, 20th November 2017 **TIME: 9.00 a.m. - 12.00 p.m.**

INSTRUCTIONS:

1. **Answer ALL Questions**
2. **Each Question carries 15 Marks)**

QUESTION ONE – (15 marks)

a) Briefly but clearly answer the following questions:

i. Global financial market transactions are fraught with risks due to perennial uncertainty. When and why would a Kenyan investor opt to invest abroad at a lower interest rate than one prevailing in Nairobi? [2 marks]

ii. What is the difference between covered interest arbitrage parity and uncovered interest arbitrage parity? [1 mark]

iii. What is the law of one price (LOP) and what is its relationship with the theory of purchasing power parity (PPP)? [1 mark]

iv. Use the Swan diagram to show how an over-valued exchange rate will lead to unemployment in a fixed exchange rate regime. [1 mark]

b) Consider the following two open economies, the home economy and the foreign economy.

In the home country the following relationships hold:

Consumption, $C = 320 + 0.4(Y - T) - 200r^w$;

Investment, $I = 150 - 200r^w$;

output, $Y = 1000$;

taxes, $T = 200$;

government purchases, $G = 275$.

In the foreign country the following relationships hold:

Consumption, $C_{FOR} = 480 + 0.4(Y_{FOR} - T_{FOR}) - 300r^w$;

Investment, $I_{FOR} = 225 - 300r^w$;

output, $Y_{FOR} = 1500$;

taxes, $T_{FOR} = 300$;

government purchases, $G_{FOR} = 300$.

i. What is the equilibrium interest rate in the international capital market? What are the equilibrium values of consumption, national saving, investment, and the current account balance in each country? [5 marks]

ii. Suppose that in the home country government purchases increase by 50 to 325. Taxes also increase by 50 to keep the deficit from growing. What is the new equilibrium interest rate in the international capital market? What are the new equilibrium values of consumption, national saving, investment and the current account balance in each country? [5 marks]

QUESTION TWO – (15 marks)

a) Draw the IS-LM curves and explain why they slope in opposite directions. [2 marks]

b) Use the IS-LM model to explain the impact on income and interest rate should the monetary authority decides to increase the money supply. [2 marks]

c) If the short-term international capital flows are very responsive to the interest rate, will the BP curve be steeper or flatter than if such flows were unresponsive to the interest rate changes in Kenya? [2 marks]

d) Use the IS-LM-BP framework to explain how an automatic adjustment mechanism, under a fixed exchange regime, will operate in Kenya when an increase in the level of income in China leads to an increase in tourists visitors from China to Kenya. [2 marks]

e) A government has just imposed a total set of exchange control to prevent the exchange rate value of its currency from declining. What effects and further developments do you predict? [2 marks]

f) Short-run pressures on market exchange rates result mainly from gradual changes in flows of international trade in goods and services." Do you agree or disagree? Explain. [2 marks]

g) The current rates are:
Spot exchange rate: $2.00/£.
Annual interest rate on 60-day U.S. –dollar-denominated bonds: 5%
Annual interest rate on 60-day pound-denominated bonds: 11%
Investors currently expect the spot exchange rate to be $1.98/pound in 60 days.

i. Show that uncovered interest parity holds (approximately) at these rates. [1 mark]

ii. What is likely to be the effect on the spot exchange rate if the interest rate on 60-day pound-denominated bonds declines to 8 percent? If the dollar interest rate and the expected future spot rate are unchanged, and if uncovered interest parity is reestablished, what will the new current spot exchange rate be? Has the pound appreciated or depreciated? [2 marks]

QUESTION THREE – (15 marks)

Due to the global financial crisis of 2008, the dollar inflow from Kenyans in diaspora to the country dropped from US$280.061 million for Jan – May 2008 to US$245.78 million for the same period in 2009. Partly due to this, the Kenyan shilling depreciated from Ksh68.7217 per US$ on Friday 29/8/2008 to Ksh75.1925 per US$ on Friday 16/10/2009.

Suppose a Kenyan businessman had US$3 million at his disposal for speculative purposes, and the following were the foreign exchange rates on the international money market on 16/10/2009.

1 pound sterling (£)	= 1.6245 U.S dollar ($)
1 Euro (€)	= 1.4882 U.S dollar ($)
1 US ($)	= 90.15 Japanese Yen (¥)

Suppose the interest rate on a 90-day treasury bill of the Central Bank of Kenya (CBK) for the 16th October 2009 issue was 8% per annum. And suppose the 90-day forward exchange rate in Nairobi for January 2010 had been agreed on 16/10/2009 at Ksh76.012. Finally, suppose the Tokyo (Japan) 90-day forward exchange rate for January 2010 had on 16/10/2009 settled at 90.43 Yen. The interest rate on October 16th 2009 90-day government securities in Tokyo was 3% per annum.

a) If the Kenyan businessman was a rational investor, which investment option between Nairobi and Tokyo will maximize his return? [5 marks]

b) What was the economic implications of the drop in the shilling value on:
   i. Government revenue? Explain. [2 marks]
   ii. Kenyan's exports? Explain. [2 marks]
   iii. The balance of payment? Explain. [2 marks]

c) What were the policy implications of the drop in the shilling's value on:
   i. The foreign exchange regime operating in Kenya? [2 marks]
   ii. The country's promotion of exports strategy? [2 marks]

QUESTION FOUR – (15 marks)

a) Consider these four option strategies: (1) buy a call; (2) write a call; (3) buy a put; (4) write a put.

   i. For each strategy, plot both the payoff and profit diagrams as a function of the final stock price. [2 marks]
   ii. Why might one characterize both buying calls and writing puts as "bullish" strategies? What is the difference between them? [2 marks]
   iii. Why might one characterize both buying puts and writing calls as "bearish" strategies? What is the difference between them? [2 marks]

b) Suppose the exchange rate for the South African rand, S_0, is currently $R13.0745 = €1$. If the interest rate in the Eurozone is $R_{EURO} = 2.12$ percent and the interest rate in South

Africa is $R_{SA} = 10.95$ percent, then what must the forward rate be to prevent covered interest arbitrage? [2 marks]

c) Suppose the exchange rates for the British pound and Swiss franc are:

Pounds per \$1 = 0.60

SF per \$1 = 2.00

The cross-rate is three francs per pound. Is this consistent? Explain how to go about making some money. [2 marks]

d) The Danish kroner is quoted in New York at \$0.18536/DKr spot, \$0.18519/DKr 30 days forward, \$0.18500/DKr 90 days forward, and \$0.18488/DKr 180 days forward. Calculate the forward discounts and premiums on the kroner. [1 mark]

e) Use the law of one price (LOP) and the theory of purchasing power parity (PPP) to explain why Kenya's manufactured exports have increasingly become uncompetitive in the international markets over the last two decades. [2 marks]

f) Under the Mundell-Fleming model, is it assumed that expansionary fiscal policy worsens a country's balance of payments (B/P). Use a sketch drawing to explain how internal and external balance policy instruments can be used to attain a balance in the country's target internal and external equilibrium, with i^* and $(G - T)^*$. [2 marks]