

# AFRICAN ECONOMIC RESEARCH CONSORTIUM

Collaborative MA Programme in Economics for Anglophone Africa  
(Except Nigeria and South Africa)

JOINT FACILITY FOR ELECTIVES  
JULY - OCTOBER 2002

INTERNATIONAL ECONOMICS

Second Session: Final Examination

Time: 9:00 am. - 12 noon

October 4, 2002

## INSTRUCTIONS

- Answer 4 questions in all: question No.1(compulsory) and any other 3.
- Explore mathematical models with clearly identified variables and/or clearly labelled Diagram(s) to support your discussion where appropriate.
- In any of the questions attempted, please clearly highlight all simplifying and underlying assumptions.

---

## QUESTION 1

- (a) A definite relationship exists between the activities of the banking public, the non-banking public, the central bank, the balance-of-payments situation and changes in Money Supply in an open economy. Highlight and define the key economic variables and parameters in this relationship(s) and establish very concisely, with clear explanations, the relationship(s).

[10 Points]

- (b) You have been given the following data regarding a sub-Saharan African country that operates under a fixed exchange rate regime.

Currency = 500 billion  
Demand Deposits = 1600 billion  
Bank Reserves = 200 billion

(All figures in Ksh., the currency of the country concerned).

Calculate the following:

- (i) The money multiplier [3 Points]
- (ii) The Monetary Base [2 Points]
- (iii) The Money Supply [2 Points]

- (c) Suppose that in the month of August 2002, the country's central Bank gained international reserves by an amount equal to Ksh.100 Billion. On the assumption that the central Bank's credit remains unchanged, what will be the impact of the gain in reserves on the monetary Base and the money Supply? [3 Points]
- (d) The government wants to keep the money supply unchanged in spite of the gain in reserves. Describe the offsetting operation in which it can engage. [4 Points]

## QUESTION 2

Using diagrammatic and mathematical expositions as appropriate, write concise explanatory notes on any **three (3)** of the following:

- (i) The Principle of Effective Market classification [4 Points]
- (ii) The Acceleration Hypothesis [4 Points]
- (iii) Vertical and Horizontal classification of the Balance of Payments [4 Points]
- (iv) The flow of Foreign Direct Investment to Developing countries [4 Points]
- (v) Elasticity Pessimism and the J-Curve effect in developing sub-Saharan African countries. [4 Points]

## QUESTION 3

On the 25th of September 2002, the 3-month interest rate on a municipal Bond in Burundi was 9.8357 % per annum and on the same day the 3-month interest rate on a municipal Bond in Kenya was 3.2395 % per annum

- (a) Highlight and explain why even with the presence of perfect international capital mobility, the Burundian municipal Bond may not be perfectly substitutable for the Kenyan Municipal Bond. [3 Points]
- (b) Using above information, and your explanation in (a), construct the model that explains how international interest differentials between the supposedly comparable assets (Kenyan and Burundian municipal Bonds denominated in two different currencies) may represent an anticipated or expected spot

exchange rate variations for an international investor who is not necessarily a foreign exchange speculator.

[4 Points]

- (c) With due consideration to your explanations and formulations in (a) and (b) above, construct and explain very clearly the model that can be used to explain the variability in exchange rates between the Burundian Currency and the Kenyan currency. [5 Points]

(Hint: Kenya is the Home country and Burundi is the foreign country).

#### QUESTION 4

- (a) Briefly explain the major complications that may arise (if any) when Peter, an Ethiopian needs to transact a business with Biliyou, (a fellow Ethiopian) and Abraham, a Tanzanian. [4 Points]
- (b) Highlight the major differences between real exchange rates and effective exchange rates. [3 Points]
- (c) On August 25, 2002, the nominal exchange rate between the British Pound Sterling and a number of other currencies were given as below:

US\$	1.713
DM	3.120
Yen (¥)	228.8
FFr.	10.50
SFr.	2.590
Hfl.	3.515
Lira	2314
C\$	2.066
BFr.	65.35

Derive and tabulate the cross exchange rates between the quoted currencies and briefly explain the importance of such a table. [5 Points]

#### QUESTION 5

- (a) Assuming that Kenya (Nation 1) and Ethiopia (Nation 2) are two large nations in the global trading system and they do engage in trading and investment relations. On the assumption that an autonomous increase in Kenya's export of coffee

derive from an equal autonomous increase in Ethiopia's imports of Coffee, briefly explain the concept of "foreign Repercussions". [3 Points]

- (b) You have been given the following information on some parameters in the Kenyan and Ethiopian Economy.

$$s_1 = 0.20$$

$$s_2 = 0.15$$

$$m_1 = 0.20$$

$$m_2 = 0.10$$

Where:

$s_1$  represents the Marginal propensity to save in Kenya

$s_2$  represents the Marginal propensity to save in Ethiopia

$m_1$  represents the Marginal propensity to import in Kenya and

$m_2$  represents the Marginal propensity to import in Ethiopia.

Starting from an initial equilibrium level of national income and trade balance in Kenya obtain the new equilibrium income level and the new trade balance level if in a given year there is an autonomous increase in investment in Kenya of Ksh. 200 Billion.

[9 Points]

## QUESTION 6

The Mundell-Fleming Model has been one of the major policy models driving economic policy formulation in many countries of the world in the last couple of decades. However, some of the major weaknesses of the model may render it inappropriate (at least in the short-run) for a typical Developing country of sub-Saharan Africa. Highlight some of these weaknesses and show, using the Mundell-Fleming Model, how a typical LDC with rapidly dwindling level of international reserves, and operating a fixed exchange rate regime may strive to attain Internal and External Balance if and when confronted with an initially serious unemployment problem. [12 Points]

