

**NATIONAL UNIVERSITY OF LESOTHO**  
**B.A. SUPPLEMENTARY EXAMINATIONS**  
**EC4306 – INTERNATIONAL FINANCE**

**August 2023**

**100 Marks**

**3 Hours**

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**Instructions:** 1) Answer any four questions.

2) Interpret your answers where necessary

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## QUESTION 1

The 1990s and early part of the 21<sup>st</sup> century were characterized by a number of currency and financial crises. In particular, the 1997 East Asian financial crisis resulted in major economic and financial turmoil in the East Asian region. Economic agents, therefore, became very keen to exit the region, until the IMF designed programs to stabilize the region. Later on, the IMF programs were criticized for their inadequacy to stabilize the region.

- a) Briefly discuss any 2 factors that led to the East Asian Financial crisis. [5]
- b) State any five of the overall objectives of the IMF program to the region. [5]
- c) Briefly discuss any three key instruments that were used by the IMF to achieve the objectives in b). [10]
- d) Briefly discuss how the IMF programs were criticized in dealing with the East Asian financial crisis. [5]

## QUESTION 2

The perfect arbitrage of the expected return in capital markets in the Dornbusch sticky-price model ensures that the uncovered interest parity (UIP) condition holds continuously. At time  $t_0$ , the initial domestic money stock  $M_1$  gives a domestic price level of  $P_1$ , an exchange rate of  $S_1$ , and the foreign price level corresponding to the PPP. Suppose that at a time  $t_1$ , the authorities unexpectedly expand the domestic money supply by 20% from  $M_1$  to  $M_2$ .

- a) Explain the process for the UIP to hold in the Dornbusch Overshooting Model. [5]
- b) Apply the dynamics of the Dornbusch overshooting model to show graphically how an increase in money supply affects;
  - i) Domestic prices [5]
  - ii) Domestic interest rates [5]
  - iii) Exchange rate, stating the condition for 'overshooting' to happen [5]
- c) What happens in the long run, to the three variables in b), when the domestic money supply increases by 20%? [5]

### QUESTION 3

**Table 1: Currency Devaluation and the Balance of Payments**

Description	Before Devaluation, the Current Account is in Balance			
	<i>Volume</i>	<i>Price</i>	<i>Sterling Value</i>	<i>Dollar Value</i>
UK exports	100	£1	£100	\$200
UK imports	40	\$5	£100	\$200
Current Account			£0	\$0
<b>Case 1: Devaluation of home currency</b>				
UK exports	105	£1		
UK imports	36	\$5		
Current Account				
<b>Case 2: Devaluation of home currency</b>				
UK exports	130	£1		
UK imports	30	\$5		
Current Account				

Policymakers have argued that devaluation of currency leads to export promotion, thus improving the current account. However, the results from the *World Competitiveness Report 2020* show inconclusive results. As an international finance expert, you are consulted to advise the government of the UK on whether or not to devalue its currency by applying different devaluation techniques.

- a) Use Table 1 to answer the following questions:
  - i) Assuming that UK is the home country, use the elasticity approach to the balance of payments to compute both the price elasticity of demand for exports  $\eta_x$ , and the price elasticity of demand for imports  $\eta_m$  for both Case 1 and Case 2. Assume the after-evaluate exchange rate is £0.666/\$1 [10]
  - ii) Compute the Marshall-Lerner condition to determine what happens to the current account when the home currency is devaluated in each case, thus discussing both the price effect and the volume effect. [10]
- b) Distinguish between the elasticity and absorption approaches to the balance of payment. [5]

#### QUESTION 4

Consider Eswatini, a ‘small country’ in the sense that it faces a fixed world interest rate  $r^*$  which it cannot influence, and the demand to hold money in Eswatini is given by:

$$m - p = \eta y - \sigma r$$

Where  $m$  is the log of the domestic money stock,  $p$  is the log of the domestic price level,  $y$  is the log of domestic real income and  $r$  is the nominal domestic real interest rate. Assume that the aggregate demand is a function of exogenous expenditure  $\beta$ , the real exchange rate expressed in the log from as  $(s - p + p^*)$ , a function of domestic income, and domestic interest rates, expressed as follows:  $d = \beta + \alpha(s - p + p^*) + \varphi y - \lambda r$ .

- a) Find the slope of the good-market schedule in the price level-exchange rate plane. [10]
- b) The monetary models of exchange rate determination assume that domestic and foreign bonds are perfect substitutes. However, the portfolio balance effect breaks the uncovered interest rate parity condition by introducing a risk premium.
  - i) What conditions must be fulfilled in order for a risk premium to exist? [5]
  - ii) Suppose that the Eswatini bonds require a 3% risk premium over the foreign bonds, and bear a real interest of 10%, while foreign bonds bear an interest of 5%. Compute the actual expected return from investing in foreign bonds. [5]
  - iii) Given  $r - r^* = E\hat{s} + RP$ , where  $RP$  is the risk premium on the Swazi lilangeni, formulate an expression that postulates the notion that in order to hold more of lilangeni denominated bonds, domestic investors would require either a rise in the interest rate differential in favour of Eswatini bonds and/or an expected appreciation of lilangeni. [5]

#### QUESTION 5

The Standard Lesotho Bank speculates that loti will depreciate against the dollar from its spot rate of \$0.15 to \$0.14 in 10 days. The following interbank lending and borrowing rates exist in Lesotho’s banking sector:

**Table 2: Interbank Lending and Borrowing Rates**

	Lending Rate	Borrowing Rate
US dollar	8.0%	8.3%
Loti	8.5%	8.7%

- a) Assume that the Standard Lesotho Bank has a borrowing capacity of either \$10 million or M70 million in the interbank market, depending on which currency it wants to borrow.
- i) How can Standard Lesotho Bank attempt to capitalize on its expectations without using deposited funds? [5]
  - ii) Estimate the profits that could be generated from the strategy in (i). [5]
- b) In 2013, the US was the world's biggest creditor nation, but now the world's biggest debtor nation. Its net international investment position (NIIP) at the end of 2021 was negative \$3.3 trillion, standing at around 290% of the annual value of US exports.
- i) Outline factors that affect the NIIP figures. [5]
  - ii) Does the United States' current account deficit matter? Briefly Discuss [5]
  - iii) What mechanisms could be employed by the US government to reduce the US current account deficit? [5]

#### QUESTION 6

- a) Assume that there are substantial capital flows among Canada, the US, and Japan. If interest rates in Canada decline to a level below the US interest rate, and inflationary expectations remain unchanged.
- i) How could this affect the value of the Canadian dollar against the US dollar? [5]
  - ii) How might this decline in Canada's interest rates possibly affect the value of the Canadian dollar against the Japanese yen? [5]
- b) Given the national income identity for an open economy, derive the current account balance that is dependent on private savings and government expenditure. [10]
- c) Assuming that the marginal propensity to save,  $s = 0.25$  and the marginal propensity to import,  $m = 0.15$ . Compute the effect of the M100 million increase in government expenditure on the current account. [5]