"Investing in Africa's future"

COLLEGE OF BUSINESS, PEACE, LEADERSHIP AND GOVERNANCE

NMEC405: MONETARY ECONOMICS

END OF SECOND SEMESTER FINAL EXAMINATION

MAY 2021

LECTURER: MR T. MASESE

DURATION: 7 HRS

INSTRUCTIONS

Answer **ALL** questions in **Section A** and any **ONE** question from **Section B**

Each question carries 60 marks

Write legibly.

Credit is given to application of theory and practice

Section A

Question 1

a. In his famous proposition, Milton Friedman postulates that "inflation is always and everywhere a monetary phenomenon" declaring that the source of all inflation episodes is a high growth rate of the money supply. Discuss the role of monetary policy in creating inflation and other supply side and demand side influences on inflation. **(20 marks)**

b. Open market operations (OMOs) are the most important monetary policy tool, because they are the primary determinants of changes in interest rates and the monetary base, the main source of fluctuations in the money supply. Distinguish between dynamic and defensive open market operations. Discuss how OMOs, reserve requirements, lender of last resort and discounting policy operate. Compare the use of open market operations, discounting, and changes in reserve requirements to control the money supply on the following criteria: flexibility, reversibility, effectiveness, and speed of implementation. **(20 marks)**

Section B

Question 2

a. Suppose that the Mr Samalenge's family has $70,000 in financial assets which they divide between investment in bonds and holding money.

   i. How are they going to decide how much of their $70,000 to invest in bonds and how much to hold in the form of money, including currency and the balance in their deposit current account? **(4 marks)**

   ii. If the Samalenges keep $1,000, on average, in currency and in their current deposit account during the year and bonds yield 20%, what is the cost to them of keeping this money? Why, then, should the Samalenges hold any money at all instead of putting all of their wealth into bonds and other assets that will earn a return? **(4 marks)**

   iii. Suppose interest rate fall, what will the Samalenges do if the interest rate now drops to 5%? Explain your answer. What other factors would influence their demand for money? **(5 marks)**

iv. Imagine that over the next decade the economy grows in real terms by 3% per year while inflation averages 4%, so the Samalenges' s nominal income roughly doubles, what will happen to the family's demand for money **(3 marks)**

b. "The only way that the Reserve Bank can affect the level of discount loans is by adjusting the discount rate." Is this statement true, false, or uncertain? Explain your answer **(4 marks)**

Question 2

a. The real interest rate is more accurately defined by the Fisher equation, named for Irving Fisher, one of the great monetary economists of 20th century. The Fisher equation states that the nominal interest rate i equals the real interest rate i_r plus the expected rate of inflation Π^e: plus several other premiums that reflect the riskiness of a particular financial asset. Explain this statement and discuss other influences that determine the level of nominal interest rates prevailing in any economy. **(10 marks)**

b. Suppose that you want to purchase a car and you save some money by depositing the money in a bank account. You are able to put $2,500 in the bank now, and another $2000 at the end of 1 year and then you make the third deposit and fourth deposits of $3,700 and $2300 the end of the second year and beginning of 4th year respectively. Reflect this information on a time line and calculate how much will be available to spend on the car 5 years from now if you earn a 10 percent rate of interest? Note that the future value interest factors for 10% interest for years 1, 2, 3, 4 and 5 are 1.00, 2.100, 3.310, 4.641 and 6.105 respectively **(5 marks)**

c. Using the T-accounts of the First National Bank and the Second National Bank, describe what happens when Jane Brown writes a $50 check on her account at the First National Bank to pay her friend Joe Green, who in turn deposits the check in his account at the Second National Bank. **(5 marks)**

Question 3

a. You often read in the newspaper that the Reserve Bank has just lowered the discount rate. Does this signal that the central bank is moving to a more expansionary monetary policy? Discuss **(5 marks)**

b. Using relevant diagrams and notation to reflect the transmission mechanism, discuss how an increase in money supply by the Central Bank through open market operations would influence variables in both the goods and money market and impact of such an expansionary monetary policy. **(15 marks)**

-END OF EXAMINATION-