The Management University of Africa

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UNDERGRADUATE UNIVERSITY EXAMINATIONS

SCHOOL OF MANAGEMENT AND LEADERSHIP

DEGREE OF BACHELOR OF MANAGEMENT AND LEADERSHIP/ BACHELOR OF COMMERCE

BML 205/ BCM 214: MACRO ECONOMICS/ INTERMEDIATE MACRO ECONOMICS

DATE: 1ST AUGUST 2024

DURATION: 2 HOURS

MAXIMUM MARKS: 70

INSTRUCTIONS:

1. Write your registration number on the answer booklet.
2. **DO NOT** write on this question paper.
3. This paper contains **SIX (6)** questions.
4. Question **ONE** is compulsory.
5. Answer any other **THREE** questions.
6. Question **ONE** carries **25 MARKS** and the rest carry **15 MARKS** each.
7. **Write all your answers in the Examination answer booklet provided.**

QUESTION ONE

Read the Case Study below carefully and answer the questions that follow:

THE MONETARY-FISCAL INTERACTION

Central banks seem to act as the directors of modern economies, setting interest rates with the goal of stabilizing inflation and often attaining full employment as well. An essential cornerstone of this approach, which can be called monetary dominance, is *central bank independence*. Indeed, as the central bank hikes interest rates and the government has to pay more for its debt, the hope is that authorities will cut back on expenditures, thereby cooling the economy and lowering inflation pressure. The ability of central banks to set monetary policy and control the economy in more fraught times hinges on its independence.

The low interest rates and less extreme public debt levels that prevailed after the global crisis permitted central banks to ignore what were then relatively inconsequential interactions between monetary and fiscal policy. The period following the 2008 crisis was one of *monetary dominance*—that is, central banks could freely set interest rates and pursue their objectives independent of fiscal policy. Central banks proposed that the core problem was not rising prices, but the possibility that weak aggregate demand would lead to a major deflation. As a result, they focused primarily on developing unconventional policy tools to allow them to provide additional stimulus. Central banks also felt emboldened to pursue policies that would simultaneously meet the need for further stimulus and achieve social objectives, such as hastening the green transition or promoting economic inclusion.

During the COVID-19 crisis, circumstances changed dramatically. Government spending rose sharply in most developed economies. In the United States, the federal government provided massive and highly concentrated support in the form of "stimulus checks" sent directly to households. European countries initially implemented somewhat more modest programs (largely focused on preventing workers from being let go) and on spending programs to assist the green and digital

transitions. Fiscal expansion seems to have been a primary driver of inflation in the United States but has contributed to inflation in Europe as well. But as spending was increasing, countries were hit by supply shocks of unprecedented proportion, largely the result of pandemic-related problems—such as supply chain disruptions. These added to inflation pressures.

The pandemic demonstrated that monetary policy does not always control inflation on its own. Fiscal policy also plays a role. More important, the accompanying buildup of public debt raised the possibility of *fiscal dominance*—in which public deficits do not respond to monetary policy. Whereas low debt levels and the need for stimulus allowed monetary and fiscal authorities to act in tandem following the global financial crisis, the prospect of fiscal dominance now threatens to pit them against one another. Central banks would like to hike interest rates to rein in inflation, whereas governments hate higher interest expenses. They would prefer that central banks cooperate by monetizing their debt—that is, by purchasing government securities private investors won't buy.

The threat of financial dominance

Central banks face new challenges in the interaction between monetary and financial stability. They now operate in an environment in which private debt is high, risk premiums on financial assets are depressed, price signals are distorted, and the private sector relies heavily on the liquidity the central bank provides in a crisis. The key difference between the period after the 2008 crisis and the situation today is that inflation is excessively high. A decade and a half ago, central banks' twin goals of stimulating economic activity and financial stability through unconventional policies coincided. Now, there are clear trade-offs between inflation management and financial stability, because interest rate hikes to fight inflation threaten to destabilize financial markets.

After the global crisis, central banks faced the dual problem of weak demand and financial instability and committed to doing "whatever it takes" to address both. Once

conventional interest rate stimulus was exhausted, they turned to unconventional quantitative easing (QE) programs, in which they purchased large amounts of risky assets from the private sector, hoping that the resulting fall in credit spreads would spur lending and real activity. These QE programs also enabled central banks to play a new significant role as market maker of last resort, buying securities when no one else would.

Required:

i. Identify and explain the two macroeconomic goals identified in the case study. **(4 Marks)**

ii. "Central banks proposed that the core problem was not rising prices, but the possibility that weak aggregate demand would lead to a major deflation." Expound on the FOUR mechanisms through which weak aggregate demand would lead to deflation. **(8 Marks)**

iii. "Fiscal expansion seems to have been a primary driver of inflation." Appraise this statement. **(5 Marks)**

iv. "During the COVID-19 crisis, circumstances changed dramatically. Government spending rose sharply in most developed economies." Propose four reasons that would have propelled rise in government spending. **(8 Marks)**

QUESTION TWO

a) A hypothetical economy has a consumption function as shown $C = 1{,}500 + 0.85Y$. During a certain period, the level of investment rose buy 4,500 units while government investment dropped by 2,000. Evaluate the impact on national income during that period. **(5 Marks)**

b) Propose FIVE reasons why national income statistics are not representative of a country's social welfare. **(10 Marks)**

QUESTION THREE

a) Suppose the consumption function is given by $C = 100 + 0.8Y$, whereas investment is given by $I = 50$

i. Determine the equilibrium level of income in this case. **(3 Marks)**

ii. Determine the level of saving at equilibrium level of income. **(2 Marks)**

iii. Assume that investment rises to 100, compute the effect on equilibrium income. **(2 Marks)**

b) Evaluate the trade-offs and challenges associated with pursuing low inflation and the potential impact on other macroeconomic goals. **(6 Marks)**

c) Propose the phase of the business cycle the Kenyan economy was at in the first quarter of 2024. **(2 Marks)**

QUESTION FOUR

a) Suppose the economy is described by the following equations:

$Y=C+I+G$

$C=200+0.8(Y-T)$

$I=150-20r$

$G=300$

$T=200$

$Md=L(Y,r)=0.5Y-30r$ $\quad\quad$ $M_S = 2{,}500$

Where Md is money demand, Y is income, and r is the interest rate and M_S *is money* supply .

i. Calculate the equilibrium level of income (Y) when the interest rate (r) is 5%. **(4 Marks)**

ii. Derive the IS equation in this model. **(4 Marks)**

iii. Calculate the slope of the LM curve in this model. **(4 Marks)**

iv. Determine the equilibrium interest rate and equilibrium income of the IS-LM relation. **(3 Marks)**

QUESTION FIVE

a) Explain four drawbacks of Barter trade that fiat money has overcome.

(8 Marks)

b) Propose seven potential consequences of Kenya imposing strict protectionist measures. **(7 Marks)**

QUESTION SIX

a) Below is a hypothetical country's statistical data.

Details	Amount
Compensation of employees	19,400
Exports	17,800
Investment	52,100
Government purchases	59,400
Transfer payments	13,900
Imports	16,500
Taxes on sales and imports	40,200
Net foreign factor income	2,200
Household consumption	21,900
Depreciation	11,800
Population	30,000

Using the above data compute:

i. Gross Domestic Product (GDP). **(2 Marks)**
ii. Gross National Income (GNP). **(2 Marks)**
iii. Net National Product (NNP). **(2 Marks)**
iv. National Income. **(2 Marks)**
v. Per capita income. **(2 Marks)**

b) Propose five effects of a depreciating currency in an economy. **(5 Marks)**