



**THE UNIVERSITY OF THE WEST INDIES
FIVE ISLANDS CAMPUS**

Semester II

Examinations of APRIL/MAY 2023

Course Code: ECON2003

Course Title: Intermediate Macroeconomics II

Date of Assessment: Thursday 27th April, 2023

Time: 9:00 a.m.

Duration: Two (2) Hours

INSTRUCTIONS TO CANDIDATES:

This paper has 3 pages and 6 questions.

YOU ARE REQUIRED TO ANSWER 6 QUESTIONS.

THIS ASSESSMENT IS WORTH 60% OF YOUR FINAL GRADE.

ASSESSMENT DETAILS FROM INSTRUCTOR(S):

CANDIDATES ARE REQUIRED TO ANSWER ALL (6) QUESTIONS.

1. One of the results of Paul Romer's new growth theory is that investment in research and development by firms will be too low in an economy. Explain how he comes to this conclusion. **(10 marks)**
2. (a) In the nineteenth century, the Canadian government had difficulty getting banks and the public to accept the penny, which had been introduced a few years before. As a result, the government offered pennies for sale at a 20 percent discount. One account of this episode describes what the Canadian government did as "negative seigniorage." What is seigniorage? Why might the Canadian government's selling pennies at a 20 percent discount be considered "negative seigniorage"? **(5 marks)**
- (b) Suppose that the Federal Reserve would like to increase the money supply by \$500,000. How can the Fed use open market operations to accomplish this goal? Assume the required reserve ratio is 10 percent. Use the following equation:

$$\Delta D = \frac{1}{RR} \Delta R$$

D = Deposits

RR = Required Reserve Ratio

R = Reserves

(5 marks)

3. Plot the following table on a graph showing average money growth rates on the horizontal axis and average inflation rates on the vertical axis (data is for the period 2002–2012, from the International Monetary Fund. International Financial Statistics). Inflation is measured using the CPI, and the monetary aggregate under consideration is M2.

	Argentina	Bolivia	Chile	Mexico
Inflation rate	10.88%	5.59%	3.20%	4.36%
Money growth rate	27.92%	34.12%	12.76%	11.44%

Do these data support the quantity theory of money? Explain.

(10 marks)

4. Suppose Helen's yearly income is \$5,000 when she is fifteen, \$35,000 when she is twenty-five, and \$70,000 when she is fifty (these are all present value measures of future income). Assume that Helen's autonomous consumption expenditure is \$20,000 and that her marginal propensity to consume is 0.75.
- (a) Plot Helen's consumption function (measure income on the horizontal axis and consumption on the vertical axis) for every point in her life. Plot Helen's consumption function if her autonomous consumption expenditure decreases to \$15,000. **(5 marks)**

- (b) Calculate Helen's average propensity to consume when she is fifteen, twenty-five, and fifty (assuming autonomous consumption is \$20,000). **(5 marks)**
5. (a) Why do firms hold inventories, and why is their inventory investment a matter of interest to macroeconomists? **(5 marks)**
- (b) What is the relationship between Tobin's q theory and the neoclassical theory of investment? **(5 marks)**
6. How does the Ricardian equivalence view of the effects of tax cuts (and budget deficits) differ from the traditional view? What objections to the Ricardian equivalence view have been raised? **(10 marks)**

END OF QUESTION PAPER