

Final Exam

Note: Chris Ragan created this exam for use with Lipsey/Ragan, *Macroeconomics*, 10th Canadian Edition.

Instructions:

- notes and calculators are not permitted
- dictionaries and translation dictionaries are permitted

Part 1. Small Questions. (30 points — approximately 30 minutes)

For each of the following, define the item/concept and explain its significance in terms of macroeconomics. Each question is worth 6 points (approximately 6 minutes).

1. Flexible exchange rates

2. Long-run aggregate supply (LRAS) curve

3. Total Factor Productivity

4. Open-market purchases

5. Automatic fiscal stabilizers

Part 2. Big Questions. (60 points — approximately 60 minutes)

Answer each of the four questions in this section. Each question is worth 20 points (approximately 20 minutes).

6. A simple model of national-income determination in a closed economy with a constant price level and interest rate is presented below. C is desired consumption, I is planned investment, G is government purchases, T is government tax revenue (net of transfers), Y is GDP, and Y_D is disposable income:

$$C = 450 + (0.75)Y_D$$

$$Y_D = Y - T$$

$$T = 20 + (0.4)Y$$

$$I = 80$$

$$G = 200$$

- a) Construct the AE (aggregate expenditure) function, plot it on a diagram and label all relevant points, intercepts, and slopes.
- b) Solve for the equilibrium level of GDP.
- c) What is the value of the simple multiplier in this model? Explain what this means.

7. Using a standard AD/SRAS model of a closed economy, analyse the short-run and long-run effects of an increase in desired saving by the private sector. Explain carefully how the paradox of thrift appears (or does not appear) in your analysis. Use an appropriate diagram in your explanation.

- 8. Explain, and show in a diagram, the long-run relationship (i.e., after factor prices have fully adjusted) between desired saving and desired investment in:**
- a) a closed economy;**
 - b) an open economy with perfect international mobility of financial capital.**

Part 3. Really Big Questions. (90 points — approximately 90 minutes)

Answer the following two questions. Each question is worth 45 points (approximately 45 minutes).

9. There has been much debate in recent years about whether Canada should maintain its current regime of flexible exchange rates or instead fix the value of its currency to the U.S. dollar. Write an essay that clearly and logically presents both sides of the debate, in terms of the benefits and costs to Canada of each alternative policy regime.

10. Consider the following model of aggregate demand and aggregate supply in an open economy (with a given nominal exchange rate). Y is real GDP, P is the price level, NX is the flow of net exports, and Z is the world price of oil.

Aggregate Demand: $Y_{AD} = 650 - 60P + 7NX$

Aggregate Supply: $Y_{AS} = 40 + 20P - 5Z$

- a) Explain carefully the economic logic of each equation.
- b) Solve for the short-run macroeconomic equilibrium values of Y and P .
- c) Explain, and show in a scale AD/SRAS diagram, the short-run effects of a dramatic reduction in OPEC oil production that drives up the world price of oil. What are the long-run effects of this shock?
- d) Explain, and show in a scale AD/SRAS diagram, the short-run effects of a large recession in Europe that reduces European demand for Canadian-produced commodities. What are the long-run effects of this shock?