

ECON 105 Homework 2
Open Economy Macroeconomics
Due November 29

Instructions:

The purpose of this assignment is to integrate the explanations found in chapter 16 of Kennedy with the AD-AS model and the Money demand (MD) – Money supply (MS) model developed in lecture.

You are to use flowcharts and graphic analysis to assess a macroeconomic scenario under three cases:

- a) Closed Economy,
- b) Flexible Exchange Rates
- c) Fixed Exchange Rates

In each case, the starting point is for the economy to be in equilibrium. Equilibrium is defined as

- (i) Aggregate Demand = Aggregate Supply (short-run),
- (ii) Money demand = Money Supply, and
- (iii) if it is an open economy, $B of P = 0$. the equivalent statement to $BP = 0$ is for Canadian interest rate = world interest rate.

The adjustment mechanism for the Balance of Payments is as follows:

If $cdn\ r < world\ r$ (where r is the interest rate; don't worry about inflation)

Then

a) if Flexible ER:

=> CO rise, CI fall => ER falls

=> X rise, M fall => AD rises

=> Y and MD rise => $cdn\ r$ rise (MD and AD shift right until $cdn\ r = world\ r$)

b) if Fixed ER:

=> Bank of Canada reduces MS until $cdn\ r = world\ r$

=> reduced MS and higher r causes AD to fall => Y to fall (AD shifts left)

(Further examples of this type of flow diagram process is found in Kennedy chapter 16)

If $cdn\ r > world\ r$, then you just reverse the directions in the flow chart

Regardless of the exchange rate regime, the final equilibrium requires that the Canadian interest rate equal the world interest rate. Either the MD curve or the MS curve will move until this equilibrium condition is met.

Using the flow diagrams found in Kennedy and the graphic analysis from lecture, you are to explain the adjustments to the Canadian economy for each scenario described below.

Here is the graphs of the goods and money markets in equilibrium. Note that the $r_{CDN} = r_{world}$; therefore the exchange rate is also in equilibrium ($BP = 0$). This is your starting point:

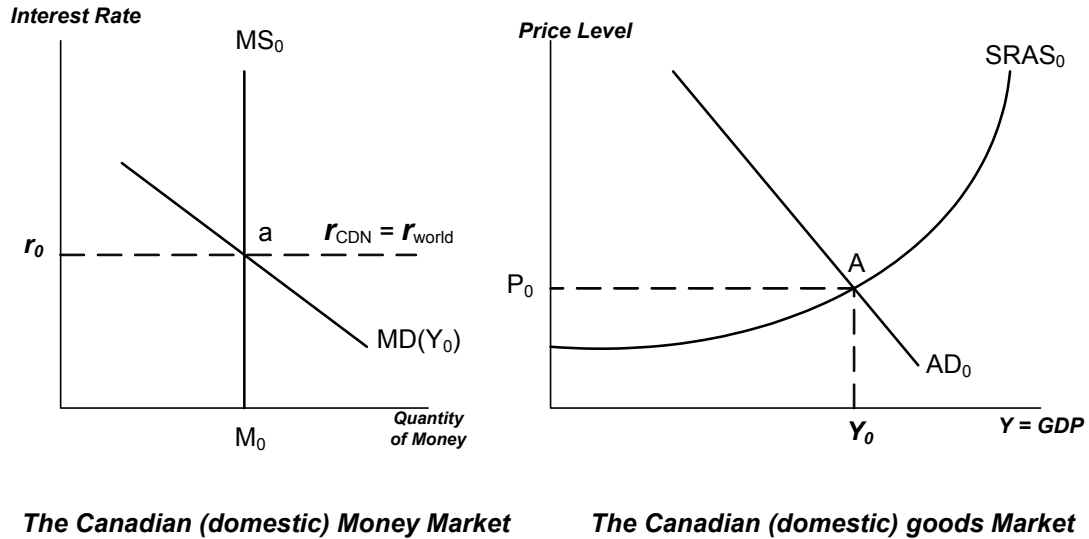


Figure 1: Initial Equilibrium

Using the above graph, illustrate the macroeconomic shock. An example of a negative shock is shown below:

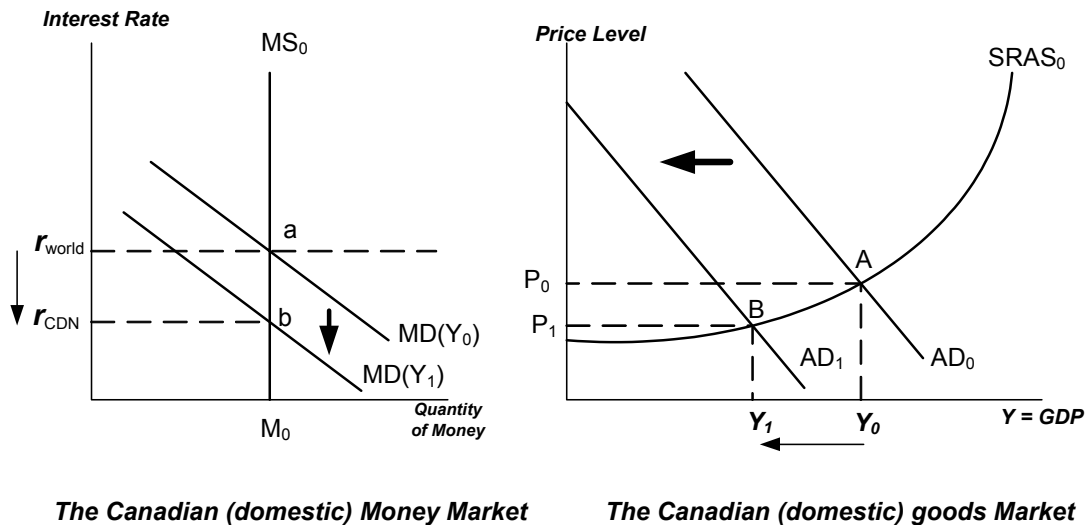


Figure 2: Example of a negative demand shock

Then, for each case (closed economy, flexible ER, fixed ER) graphically illustrate the adjustment (if any) that follows the economic shock. With each graph, supply the

corresponding flowchart (as per Kennedy chapter). In each scenario, make sure you identify what happens to GDP relative its initial position.

Macroeconomic Scenario's

Scenario One:

Mad Cow disease in Europe creates a new market for Canadian Beef. How does the Canadian goods and money market adjust under both a fixed and a flexible exchange rate.

Scenario Two:

The economy is in equilibrium as illustrated in figure One (above). However the government has decided that the current GDP (Y_0) is less than full employment. The government decides to use expansionary Fiscal policy to stimulate the economy in hopes of increasing GDP. Illustrate and explain the process and the resulting equilibrium when it is a) a closed economy b) Fixed exchange rate c) flexible exchange rate.

Scenario Three:

The economy is in equilibrium as illustrated in figure One (above). However the government has decided that the current GDP (Y_0) is less than full employment. The government decides to use expansionary Monetary policy to stimulate the economy in hopes of increasing GDP. Illustrate and explain the process and the resulting equilibrium when it is a) a closed economy b) Fixed exchange rate c) flexible exchange rate.

Scenario Four:

Due to the uncertainty in the Middle East, interest rates in Europe and the USA suddenly rise, causing the world interest rate to rise above the Canadian interest rate. What happens if:

- a) Government takes no action and Canada is under a flexible exchange rate.
- b) Bank of Canada takes action under a fixed exchange rate.