

## 2011 AP<sup>®</sup> MACROECONOMICS FREE-RESPONSE QUESTIONS

2. Japan, the European Union, Canada, and Mexico have flexible exchange rates.
- (a) Suppose Japan attracts an increased amount of investment from the European Union.
    - (i) Using a correctly labeled graph of the loanable funds market in Japan, show the effect of the increase in foreign investment on the real interest rate in Japan.
    - (ii) How will the real interest rate change in Japan that you identified in part (a)(i) affect the employment level in Japan in the short run? Explain.
  - (b) Suppose in a different part of the world, the real interest rate in Canada increases relative to that in Mexico.
    - (i) Using a correctly labeled graph of the foreign exchange market for the Canadian dollar, show the effect of the change in real interest rate in Canada on the international value of the Canadian dollar (expressed as Mexican pesos per Canadian dollar).
    - (ii) How will the change in the international value of the Canadian dollar that you identified in part (b)(i) affect Canadian exports to Mexico? Explain.
3. Sewell Bank has the simplified balance sheet below.

Assets		Liabilities	
Required reserves	\$2,000	Demand deposits	\$10,000
Excess reserves	\$0	Owner's equity	\$10,000
Customer loans	\$8,000		
Government securities (bonds)	\$7,000		
Building and fixtures	\$3,000		

- (a) Based on Sewell Bank's balance sheet, calculate the required reserve ratio.
- (b) Suppose that the Federal Reserve purchases \$5,000 worth of bonds from Sewell Bank. What will be the change in the dollar value of each of the following immediately after the purchase?
  - (i) Excess reserves
  - (ii) Demand deposit
- (c) Calculate the maximum amount that the money supply can change as a result of the \$5,000 purchase of bonds by the Federal Reserve.
- (d) When the Federal Reserve purchases bonds, what will happen to the price of bonds in the open market? Explain.
- (e) Suppose that instead of the purchase of bonds by the Federal Reserve, an individual deposits \$5,000 in cash into her checking (demand deposit) account. What is the immediate effect of the cash deposit on the M1 measure of the money supply?

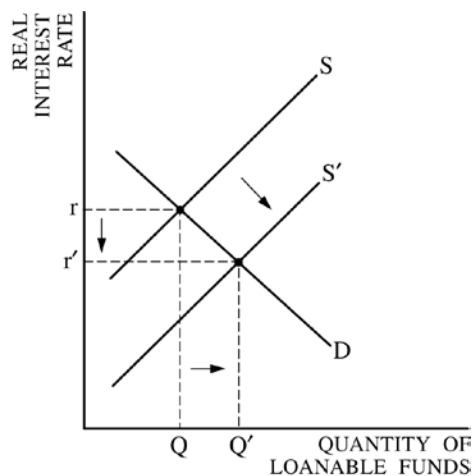
**STOP**

**END OF EXAM**

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**Question 2**

**6 points** (3 + 3)



(a) (i) 1 point:

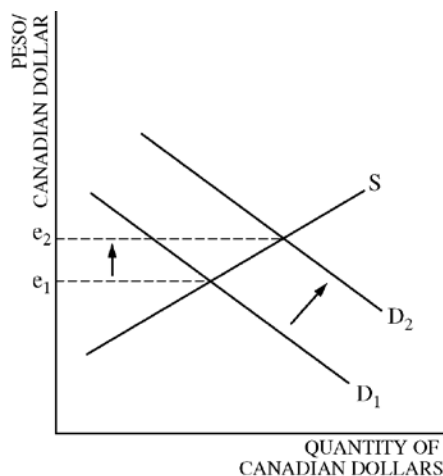
- One point is earned for drawing a correctly labeled graph of the loanable funds market and showing a rightward shift of the supply curve and the change in the real interest rate.

(ii) 2 points:

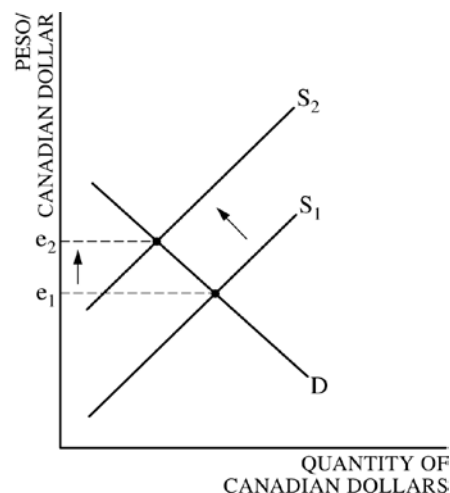
- One point is earned for stating that the decrease in the real interest rate caused interest-sensitive spending to increase.
- One point is earned for stating that the increase in aggregate demand increases output, which causes an increase in employment.

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## Question 2 (continued)



OR



(b) (i) 2 points:

- One point is earned for a correctly labeled graph of the foreign exchange market for the Canadian dollar.
- One point is earned for showing a rightward shift of the demand curve and/or a leftward shift of the supply curve and for showing an appreciation of the Canadian dollar.

(ii) 1 point:

- One point is earned for stating that Canadian exports to Mexico will decrease because the appreciation of the Canadian dollar makes Canadian products more expensive for Mexican consumers.