

**2016 AP® MACROECONOMICS FREE-RESPONSE QUESTIONS**

2. The following is the balance sheet of First Superior Bank.

Assets		Liabilities and Equity	
Reserves	\$200	Demand deposits	\$2,000
Loans	\$1,800	Equity (net worth)	\$0

Assume that the required reserve ratio is 10 percent.

- (a) What is the dollar value of new loans that First Superior Bank can make? Explain.
- (b) Mr. Smith deposits \$100 of cash in a demand deposit account in First Superior Bank. Calculate the maximum amount of new loans that First Superior Bank can now make.
- (c) As a result of Mr. Smith's \$100 cash deposit, calculate the maximum change over time in each of the following in the banking system.
  - (i) Loans
  - (ii) Demand deposits
- (d) As a result of Mr. Smith's \$100 cash deposit, calculate the maximum change over time in the money supply.
- (e) Provide one reason why the actual change in money supply can be smaller than the maximum change you identified in part (d).

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3. The following table shows the number of donuts or cupcakes that John and Erica can each produce in one day.

	Donuts	Cupcakes
John	200	100
Erica	150	50

- (a) Who has the absolute advantage in producing donuts? Explain.
- (b) Who has the comparative advantage in producing donuts? Explain.
- (c) Assume that John and Erica decide to specialize according to their comparative advantages and that one cupcake is exchanged for four donuts.
  - (i) Indicate whether or not specialization and trade are beneficial to John.
  - (ii) Indicate whether or not specialization and trade are beneficial to Erica.
- (d) Assume that Erica discovers a new cupcake production technique that will increase her daily production of cupcakes only. Using donuts on the horizontal axis, draw a correctly labeled production possibilities curve for Erica, before and after the technology change in cupcake production.

**STOP**

**END OF EXAM**

**AP<sup>®</sup> MACROECONOMICS  
2016 SCORING GUIDELINES**

**Question 2**

**6 points** (1+1+2+1+1)

(a) 1 point:

- One point is earned for stating that new loans are zero because the bank has no excess reserves (or because the bank is already fully loaned up).

(b) 1 point:

- One point is earned for correctly calculating the maximum amount of new loans that First Superior Bank can make as \$90 ( $= \$100 \times (1 - 0.10)$ ).

(c) 2 points:

- One point is earned for correctly calculating the maximum change over time in loans in the banking system as \$900 ( $= \$90 \times 10$ ).
- One point is earned for correctly calculating the maximum change over time in demand deposits in the banking system as \$1,000 ( $= \$100 \times 10$ ).

(d) 1 point:

- One point is earned for correctly calculating the maximum change over time in the money supply in the banking system as \$900 ( $= \$90 \times 10$ ).

(e) 1 point:

- One point is earned for stating that the money supply can be smaller than the maximum change identified when the public holds more money and /or banks hold more excess reserves.