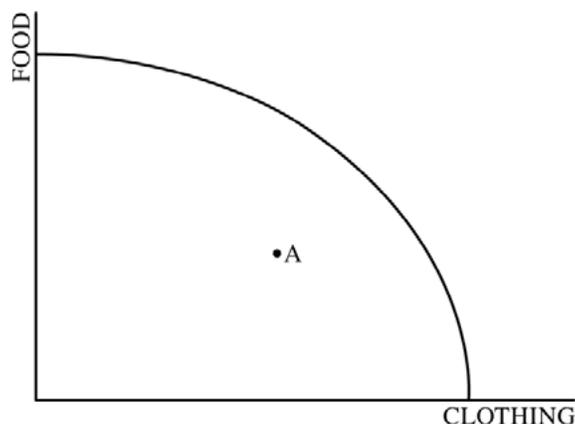


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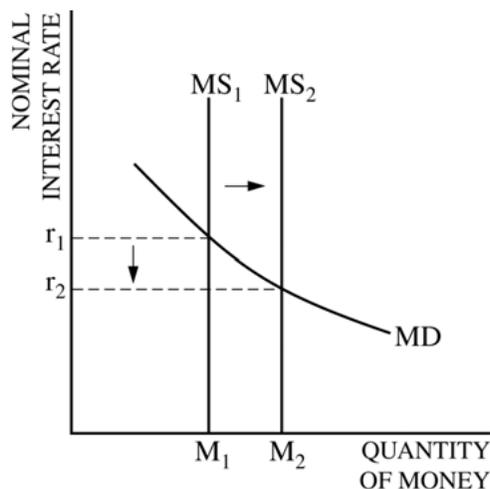
**Question 1**

**12 Points** (2 + 6 + 4)



(a) 2 points:

- One point is earned for a correctly labeled graph of the production possibilities curve (PPC).
- One point is earned for showing point A inside the PPC.



(b) 6 points:

- One point is earned for identifying the buying of bonds as the correct open-market operation to use.
- One point is earned for drawing a correctly labeled graph of the money market.
- One point is earned for showing a rightward shift of the money supply curve, resulting in a lower interest rate.
- One point is earned for stating that the real interest rate will fall.
- One point is earned for explaining that with the price level remaining constant, when the nominal interest rate falls, the real interest rate also falls.
- One point is earned for stating that the real GDP will increase in the short run and explaining that investment or consumption increases, causing aggregate demand to increase.

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2012 SCORING GUIDELINES**

**Question 1 (continued)**

(c) 4 points:

- One point is earned for stating that the current account deficit will increase.
- One point is earned for explaining that the increase in real GDP increases income, which causes imports to increase and net exports to decrease.
- One point is earned for stating that the international value of the bera will decrease.
- One point is earned for explaining that the decline in the international value of the bera is due to an increase in the supply of the bera.

1A  
1 of 3

MACROECONOMICS

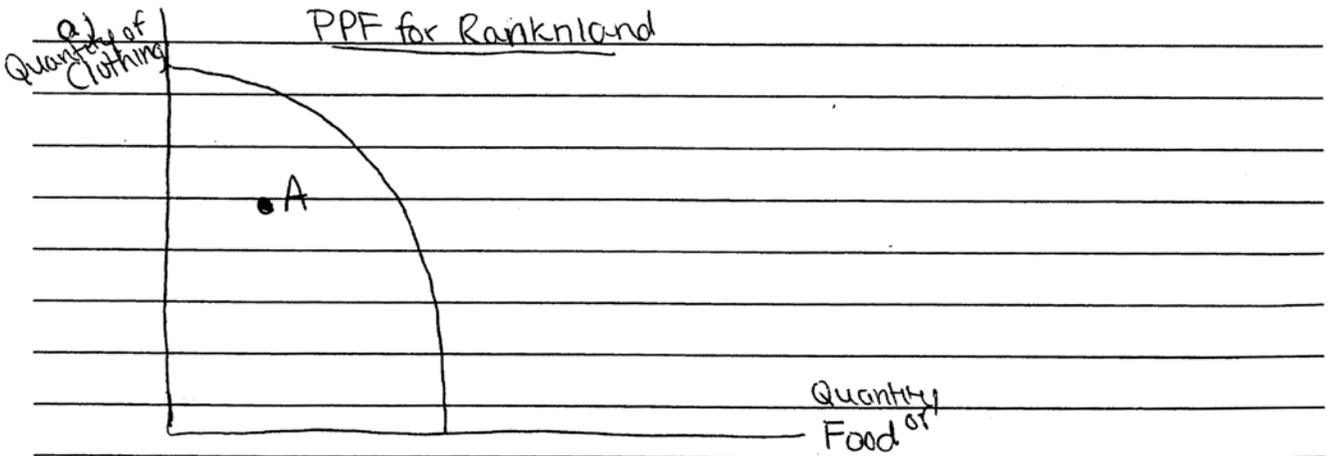
Section II

Planning Time—10 minutes

Writing Time—50 minutes

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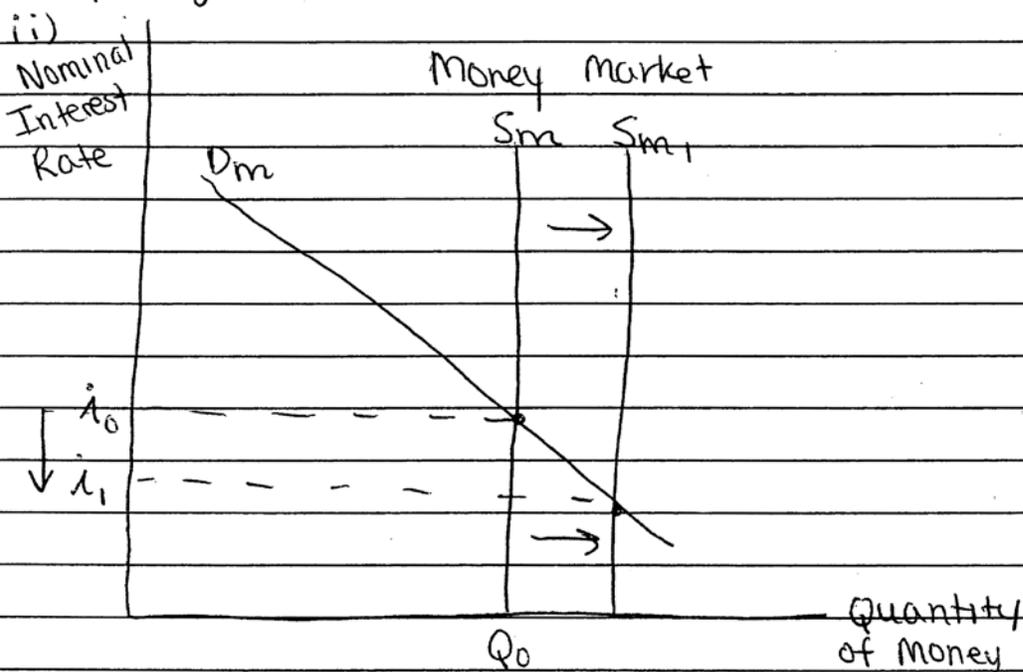
1. Assume that the country of Rankinland is currently in recession.
  - (a) Assume that Rankinland produces only food and clothing. Draw a correctly labeled production possibilities curve for Rankinland. Show a point that could represent the current output combination and label it A.
  - (b) Assume that the Central Bank of Rankinland pursues an expansionary monetary policy. point below axis
    - (i) Identify the open-market operation that the Central Bank would use.
    - (ii) Draw a correctly labeled money market graph and show the short-run effect of the expansionary monetary policy on the nominal interest rate.
    - (iii) Assuming no change to the price level, what happens to the real interest rate as a result of the expansionary monetary policy? Explain.
    - (iv) Given your answer to part (b)(iii) regarding the real interest rate, what happens to the real gross domestic product (GDP) in the short run? Explain.
  - (c) Suppose Rankinland has a current account deficit. Rankinland's currency is called the bera.
    - (i) What will initially happen to the current account deficit in Rankinland solely due to the change in the real GDP from part (b)(iv)? Explain.
    - (ii) What will happen to the international value of the bera solely due to the change in the real GDP from part (b)(iv)? Explain.



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GO ON TO THE NEXT PAGE.

b) i) The Central Bank would buy bonds on the open market to pursue an expansionary monetary policy.



The increase in the money supply ( $S_m$  to  $S_{m1}$ ) caused by the purchase of bonds causes the nominal interest rate to fall ( $i_0$  to  $i_1$ ), as shown in the graph.

iii) Because there is no inflation, the fall in the nominal interest rate corresponds to a fall in the real interest rate (Real = Nominal - Inflation  $\rightarrow$  Real = Nominal - 0  $\rightarrow$  Nominal  $\downarrow$  = Real  $\downarrow$ ).

iv) The fall in the real interest rate causes interest-sensitive expenditures of consumption, investment and net exports to rise, so aggregate demand increases and thus real GDP rises.

GO ON TO THE NEXT PAGE.

Question 1 is reprinted for your convenience.

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c) i) The increase in real GDP means that national real income in Rankinland has risen, so Rankinland's imports of foreign goods and services will rise. Higher imports is counted as a debit in the current account, so the current account deficit increases.

ii) The increase in real GDP will cause Rankinland to buy more goods and services from abroad, so it will supply more bera to do so and thus the bera will depreciate.

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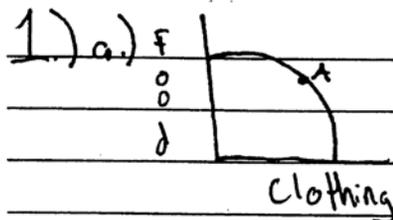
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**MACROECONOMICS**  
**Section II**  
**Planning Time—10 minutes**  
**Writing Time—50 minutes**

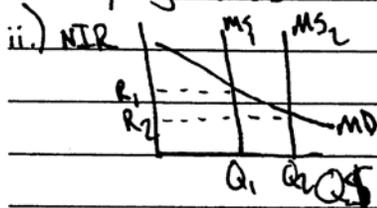
1B 192

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i.) Buying Bonds



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**GO ON TO THE NEXT PAGE!**

- iii.) Real interest rate has lowered because of the increase of money.
- iv.) In the short run RGDP has increased because an increase in money supply shifts AD to the right which in turn increases RGDP.
- c.) i.) Rankinland's current account deficit will decrease due to the increase of RGDP.
- ii.) The breca will appreciate now because the deficit is now lowered.

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MACROECONOMICS

1C 142

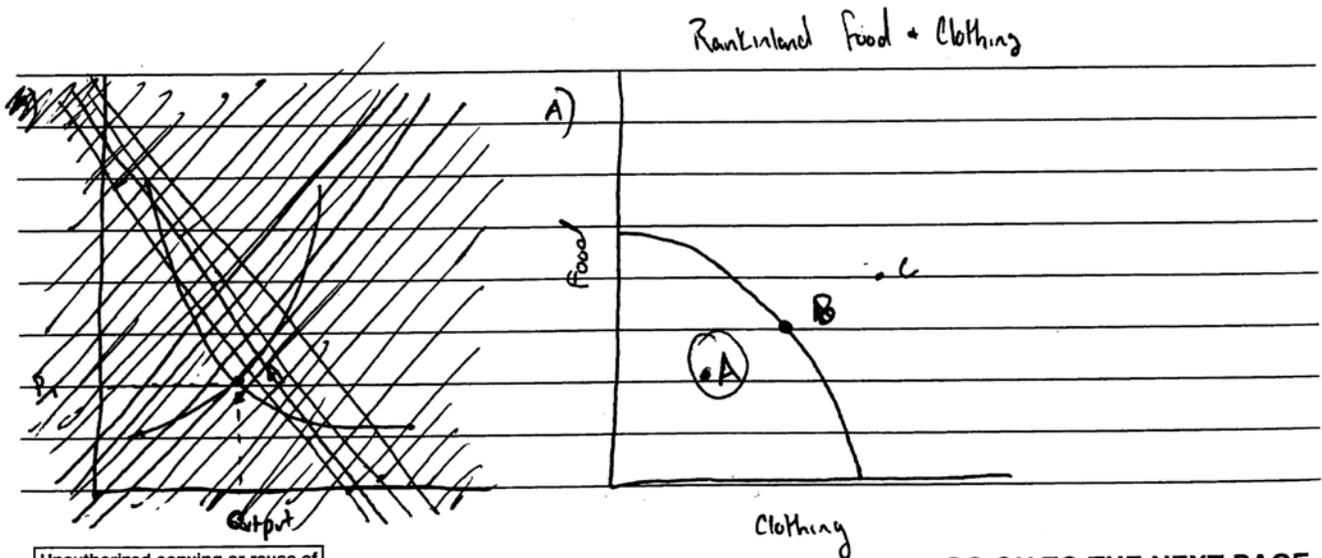
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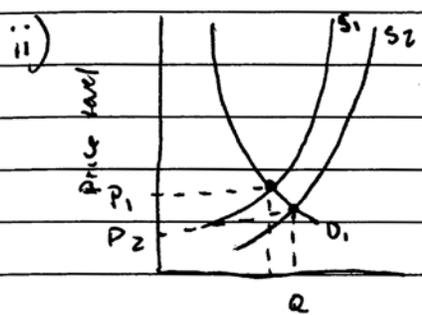


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Additional answer page for Question 1.

b) i) The open market operation that the central Bank would use is to raise interest rates



ii) The real interest rate increases as a result of the expansionary monetary policy. The supply will increase causing the interest rate to increase.

iii) In the short run, the real gross domestic product will decrease because the interest rate has increased. Not only is Rankinland in a recession but the interest rate increases causing GDP to go down in the short run.

c) i) Due to the Real ~~GDP~~<sup>GDP</sup> in Rankinland, the current account deficit will go ~~down~~<sup>up</sup> due to the decrease in Real Gross domestic product.

ii) The international value of Rankinland's currency "the Bera" will go down due to the Real GDP. Their economy is running in a recession causing GDP to decrease causing the international value of their currency to decrease.

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# AP<sup>®</sup> MACROECONOMICS 2012 SCORING COMMENTARY

## Question 1

### Overview

Part (a) tested students' ability to draw a production possibilities frontier diagram and to indicate a recession on the diagram. Part (b) asked students to identify the open-market operation that a central bank would use to address a recession; to show the effect of expansionary monetary policy on the nominal interest rate, using a correctly labeled money market graph; and to explain the effect of the expansionary monetary policy on the real interest rate and real gross domestic product in the short run. Part (c) tested students' ability to explain the effect of an increase in a country's real GDP on that country's current account deficit and the value of the country's currency.

### Sample: 1A

#### Score: 12

The student answers all parts of the question correctly and so earned all 12 points.

### Sample: 1B

#### Score: 6

The student earned 1 point in part (a) for a correctly labeled production possibility curve. The student received 1 point in part (b)(i) for stating that the central bank should buy bonds. The student earned 2 points in part (b)(ii): 1 point for a correctly labeled money market graph and 1 point for showing the short-run effect of an expansionary monetary policy on the nominal rate of interest. The student earned 1 point in part (b)(iii) for stating that the real interest rate declines. The student earned 1 point in part (b)(iv) for explaining that an increase in aggregate demand leads to an increase in the real GDP.

### Sample: 1C

#### Score: 2

In part (a) the student earned 1 point for a correctly labeled production possibility curve and 1 point for showing the current output combination and correctly labeling it point A. The student lost all 4 points in part (c), because the answers are inconsistent with the answers to part (b)(iv) on real GDP.