1. Assume that the United States economy is currently in long-run equilibrium.

(a) Draw a correctly labeled graph of aggregate demand and aggregate supply and show each of the following.

(i) The long-run aggregate supply curve

(ii) The current equilibrium output and price levels, labeled as Y_E and PL_E, respectively

(b) Assume that the government increases spending on national defense without raising taxes.

(i) On your graph in part (a), show how the government action affects aggregate demand.

(ii) How will this government action affect the unemployment rate in the short run? Explain.

(c) Assume that the economy adjusts to a new long-run equilibrium after the increase in government spending.

(i) How will the short-run aggregate supply curve in the new long-run equilibrium compare with that in the initial long-run equilibrium in part (a) ? Explain.

(ii) On your graph in part (a), label the new long-run equilibrium price level as PL_2.

(d) In order to finance the increase in government spending on national defense from part (b), the government borrows funds from the public. Using a correctly labeled graph of the loanable funds market, show the effect of the government's borrowing on the real interest rate.

(e) Given the change in the real interest rate in part (d), what is the impact on each of the following?

(i) Investment

(ii) Economic growth rate. Explain.

1. The unemployment rate in the country of Southland is greater than the natural rate of unemployment.

(a) Using a correctly labeled graph of aggregate demand and aggregate supply, show the current equilibrium real gross domestic product, labeled Y_C, and price level in Southland, labeled PL_C.

The president of Southland is receiving advice from two economic advisers—Kohelis and Raymond—about how best to reduce unemployment in Southland.

(b) Kohelis advises the president to decrease personal income taxes.

(i) How would such a decrease in taxes affect aggregate demand? Explain.

(ii) Using a correctly labeled graph of the short-run Phillips curve, show the effect of the decrease in taxes. Label the initial equilibrium from part (a) as point A, and the new equilibrium resulting from the decrease in taxes as point B.

(c) Raymond advises the president to take no policy action.

(i) What will happen to the short-run aggregate supply curve in the long run? Explain.

(ii) Using a new correctly labeled graph of the short-run Phillips curve, show the effect of the change in the short-run aggregate supply you identified in part (c)(i).

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