1. Assume that the United States economy is in long-run equilibrium with an expected inflation rate of 6 percent

and an unemployment rate of 5 percent. The nominal interest rate is 8 percent.

(a) Using a correctly labeled graph with both the short-run and long-run Phillips curves and the relevant

numbers from above, show the current long-run equilibrium as point A.

(b) Calculate the real interest rate in the long-run equilibrium.

(c) Assume now that the Federal Reserve decides to target an inflation rate of 3 percent. What open-market

operation should the Federal Reserve undertake?

(d) Using a correctly labeled graph of the money market, show how the Federal Reserve’s action you identified

in part (c) will affect the nominal interest rate.

(e) How will the interest rate change you identified in part (d) affect aggregate demand in the short run?

Explain.

(f) Assume that the Federal Reserve action is successful. What will happen to each of the following as the

economy approaches a new long-run equilibrium?

(i) The short-run Phillips curve. Explain.

(ii) The natural rate of unemployment