The Conduct of Monetary Policy
ECON 4673
Dr. Keen

Answers

1. *What are the two different types of asset-price bubbles? How are they different? Which one usually leads to a mild recession and which one leads to a deep recession.*

   The two types of asset-price bubbles are credit-driven bubbles and bubbles driven solely by irrational exuberance. Credit-driven bubbles occur when a credit boom drives asset prices higher and usually leads to a deep recession when the asset-price bubble bursts. Bubbles driven solely by irrational exuberance occur when expectations become overly optimistic and often lead to a mild recession when the asset-price bubble bursts.

2. *Briefly describe two ways a central bank can help prevent asset-price bubbles.*

   The Federal Reserve can use Macroprudential policies and/or monetary policy. Macroprudential policies use regulatory rules, such as higher capital requirements during booms, to curb excessive risk taking associated with credit booms. The Federal Reserve can also use monetary policy to reduce the risk that an asset price bubble bursts by raising interest rates in order to shut down the credit boom.

3. *Briefly explain inflation targeting. What are the four advantages and four disadvantages of inflation targeting.*

   Inflation targeting involves setting a medium-term goal for inflation and then engaging in a policy committed to achieving that inflation goal. The four advantages of inflation targeting are: 1) It reduces the time-inconsistency problem; 2) It increases transparency of monetary policy; 3) It increases the accountability of the central bank to the public and government; and 4) Other central banks with inflation targets have been quite good at lowering their inflation rates beyond what would have likely occurred in the absence of the inflation target. The four disadvantages of inflation targeting include: 1) Inflation targeting does not send out a reliable signal about the stance of monetary policy because monetary policy impacts inflation with a long lag; 2) Some economists believe inflation targeting limits the ability of the central bank to respond to unforeseen economic events; 3) If policymakers solely focus on inflation targeting, then there is a potential for increased output fluctuations; and 4) Some economists believe inflation targeting will lead to lower economic growth.

4. *Briefly describe the four lessons monetary policy learned from the 2008 Financial Crisis.*

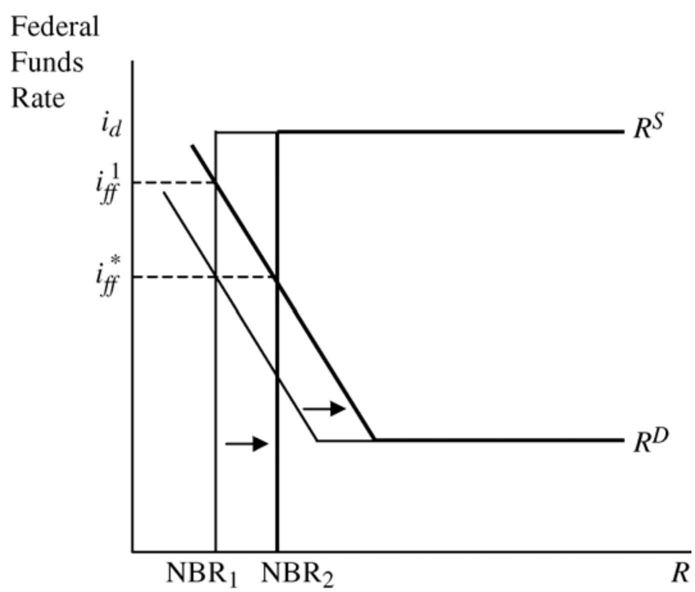
   The 2008 Financial Crisis taught economists some important lessons. 1) Developments in the financial sector can have a great impact on economic activity; 2) When the federal funds rate falls near zero, the Federal Reserve must use unconventional monetary policy tools to stimulate the economy. Those tools, however, have a much more uncertain impact on the economy; 3) Financial crises usually are followed by deep recessions and slow recoveries; and 4) Just because the Federal Reserve has achieved output and price stability does not ensure that it will have financial stability.

5. *What might cause a central bank to fall into the time-inconsistency trap of pursuing overly expansionary monetary policy?*

   Central bankers might simply desire to boost output and lower unemployment in the short run even though they realize such a policy will only generate higher inflation in the long run. Alternatively, politicians may pressure the central bank to pursue an overly expansionary monetary policy to improve their chances for re-election and/or to provide more seignorage revenue so the politicians can use it to fund government operations.

6. *What procedures can the Federal Reserve use to target the federal funds rate? Explain why a Federal Reserve policy to target the federal funds rate causes the central bank lose control of nonborrowed reserves?*

   The Federal Reserve can control the federal funds rate by buying and selling bonds in the open market. When the federal funds rate rises above its target, the Federal Reserve would buy bonds, which would increase nonborrowed reserves and lower the interest rate to its target (see graph below). Similarly, when the federal funds rate falls below its target, the Federal Reserve would sell bonds to raise the interest rate to the target level. The resulting open-market operations would affect the quantity of reserves and the money supply and cause both of them to change. The Federal Reserve would be giving up control of reserves and the money supply to pursue a policy targeting the federal funds rate.



7. *What does the Taylor rule imply about how policymakers should adjust their federal funds rate target in each of the following scenarios?*

   a. *The unemployment rate rises due to a recession.*

      An increase in the unemployment rate during a recession would lower the output gap. The Taylor rule then indicates the Federal Reserve should respond to that lower output gap by reducing the federal funds rate.

b. *An oil price shock causes the inflation rate to rise by 1% and output to fall by 1%.*

A 1% increase in inflation would prompt the Federal Reserve to raise the federal funds rate by 1.5 percentage points. In contrast, the 1% decrease in the output gap would imply the federal funds rate should fall by 0.5 percentage points. On net, the two factors indicate the Federal Reserve should raise the federal funds rate by one percentage point according to the Taylor rule.

c. *The equilibrium real interest rate falls.*

If the equilibrium real interest rate declines by 0.5%, the Federal Reserve should reduce its federal funds rate target rate by 2% according to the Taylor rule.

d. *Potential output declines while actual output remains unchanged.*

If potential output declines, the size of the output gap increases. Thus, the Taylor rule indicates the Federal Reserve should increase the federal funds rate.

e. *The Federal Reserve lowers its target inflation rate.*

If the inflation rate target declines, the inflation gap (actual inflation minus target inflation) would rise resulting in a higher federal funds rate according to the Taylor rule.