The Real Fed Funds Rate

Classroom Activity

Complexity: Advanced
Prerequisites: Macro topics; the Federal Reserve; monetary policy goals and tools
Type: Small group (pairs) or individual
Time: 40 minutes
Objectives:

- Use game play data to develop numeric guidelines for identifying expansionary and contractionary monetary policy
- Evaluate the stance of monetary policy though the level of the real fed funds rate

Materials/Media:

- *Chair the Fed* Video Q&A, Question 10
- Copies of "*The Real Fed Funds Rate*" Datasheet, one per group
- Access to a computer lab or classroom laptops/tablets with internet access
- Project the *Chair the Fed* game (internet access, computer projector, computer, computer speakers-*optional*)

Description:
This activity introduces the concept of the real fed funds rate using a short video clip from the *Chair the Fed* Video Q&A. Following the video clip, students will work in pairs to play one round of *Chair the Fed*, record their game data, and then complete an analysis of their game data to evaluate the stance of monetary policy. The activity concludes with a whole class debrief. Several homework suggestions are included at the end of the activity to explore the historical real fed funds rate and the natural rate of interest. As an alternative to the in-class activity, you can assign the game play and analysis as homework and conduct a debrief during the next class meeting.

ACTIVITY PLAN

I. Set-Up (10 minutes)

1. Begin the discussion with a brief review of the difference between nominal and real interest rates. Write both terms on the board. Ask students for an example of each. Record student responses on the board.

2. Announce that you will show a short (less than 2 minute) video clip about setting the level of the fed funds rate (*Chair the Fed* Video Q&A, Question 10). At the end of the clip, students will answer the following question (write the question on the board):

   Is an 8% fed funds rate designed to slow the economy and why?

3. Play the video clip and discuss the following questions:

   a. What is the Fed's dual mandate?

   b. Broadly speaking, what effect do higher interest rates have on the economy?

   c. Broadly speaking, what effect do lower interest rates have on the economy?

   d. How do you calculate the real fed funds rate?

   e. Is an 8% fed funds rate designed to slow the economy and why?

II. Game Play & Analysis (20 minutes)

Note: Step 1 can be skipped if you have already introduced the Chair the Fed game.

1. Display the *Chair the Fed* game and briefly point out that the game puts the player in the role of setting monetary policy as Chair of the Fed. Highlight the chart area showing the goals for inflation (2%) and unemployment (5%). Roll over the question mark pop-ups on the screen to highlight the goals for each. Tie these two goals back to the Fed's dual mandate. Navigate to the "Your Job" and "FAQs" tabs where students can find helpful tips and suggestions.

2. Divide students into groups of two and distribute copies of the Datasheet. Quickly review the instructions. Take students to a computer lab, or use classroom laptops/tablets, to complete the activity. Have students play a single term of *the Chair the Fed* game and complete the analysis contained in the Datasheet handout.

III. Debrief (10 minutes)

1. Review student responses to the questions in the Datasheet handout. Note: in the game, a real fed funds rate greater than 3% is considered contractionary and equal to or less than 1.% is considered expansionary.

2. Discuss the following:
   - As a group, what level of the real fed funds rate seems to be 'neutral' (not too tight or too loose)?
   - Looking at your data, can you find a quarter, or quarters, where you set the fed funds rate in that neutral range?
   - What economic conditions seem to support a more neutral range?
   - If we look at monetary policy today, outside of the game, what is the current stance of monetary policy?

HOMEWORK OPTIONS

1. Interact with the real fed funds rate chart on the *Chair the Fed* web page. Record the highest and lowest levels of the real fed funds rate. Record the level of the effective fed funds rate during the same dates. What was the stance of monetary policy during these periods? What is the current stance of monetary policy?
2. Read more about the neutral or "natural" rate of interest. How is it measured? Is it constant over time? What is the relationship between the natural rate of interest and the real rate of interest? Why does it matter for monetary policy?

ADDITIONAL RESOURCES

1. Williams, John C. 2003. "The Natural Rate of Interest." *FRBSF Economic Letter* 2003-32 (October 31).
2. Lubik, Thomas A. and Jessie Romero. 2011. "Monetary Policy with Unknown Natural Rates." Federal Reserve Bank of Richmond *Economic Brief* 11-07 (July).
3. Congressional Budget Office. 2007. "How CBO Projects the Real Rate of Interest on 10-Year Treasury Notes." Background Paper. Pub 2886 (December).