

## Activity 12: Money

This activity focuses on the money supply and interest rates, and you will use FRED® to find data that pertain to them. FRED® is a great and simple tool for finding, viewing, and transforming official data.

1. Go to <https://fred.stlouisfed.org/> and sign in to your personal FRED® account.
2. In the search bar, type in “M1.” One of the first few results should be **M1 Money Stock, Billions of Dollars, Monthly, Seasonally Adjusted**. Click on this. This is our basic money supply, which equals currency (outside banks) plus demand deposits. Next, click the orange EDIT GRAPH button on the upper right of the screen and make sure the EDIT LINE 1 tab is highlighted. In the **Modify frequency** box change the frequency to **Quarterly**. What are the units? What is the current level of the M1 money stock?
3. What was the level of M1 at the start of the 2007-09 recession? How did the level change between December 2007 and January 2020? How would you describe the trend? What kinds of actions do you think the Federal Reserve took to create this path?
4. Click on the orange EDIT GRAPH button and make sure the ADD LINE tab is highlighted. In the search bar, type in “monetary base.” One of the first few options should be **Monetary Base, Total, Monthly, Millions of Dollars, Not Seasonally Adjusted**. Click on this, and then click the **Add data series** button. In the **Modify frequency** box change the frequency to **Quarterly**. In the **Formula** box, type “a/1000” and click the **Apply** button to change the units from millions to billions. This data series is sometimes referred to as M0 and equals currency in circulation plus bank reserves. What do you notice about the graph now? What happened to the monetary base between June 2009 and January 2020?
5. Click on the orange EDIT GRAPH button and make sure the ADD LINE tab is highlighted. In the search bar, type in “money multiplier.” One of the first few options should be **M1 Money Multiplier (DISCONTINUED), Biweekly, Ratio, Seasonally Adjusted**. Click on this, and then click the **Add data series** button. This is the (effective) money multiplier using the (effective) reserve ratio. Under the EDIT LINES tab, make sure EDIT LINE 3 is selected. Change the frequency to **Quarterly**. To view this series, you must click the FORMAT tab and for LINE 3, under **Y-Axis position**, select **Right**. What is the current value of the money multiplier?

---

### Tools for Teaching with FRED®

6. How did the money multiplier change between June 2009 and January 2020? How does this compare with what happened to M1 and the monetary base? What is a possible explanation?
  
7. Change the date range to begin in January 2000. Compare the changes in the lines during the 2001 recession to the changes during the Great Recession. Propose an explanation for the differences.
  
8. The federal funds rate was near zero for several years during and following the Great Recession. What policy do you think the FOMC was trying to implement?
  
9. Save the graph to your FRED® account: Find the **Account Tools** button under the graph and click it. Select **Save Graph**. Select an **Observation Range**. The middle choice—**Always chart from YYYY-00-00 to the last value available**—will ensure that your graph updates whenever new data are added to the series. Type in a title and click **Save Graph**. You may create a **Category** folder first, if you wish, and save the graph in the folder.
  
10. Dashboard option: Finish by adding the completed graph to your FRED® dashboard. Click the **Account Tools** button under the graph and select **Add to Dashboard**. Select your dashboard and in the **Graph Name** box, type “Activity 12-Money.” Select an **Observation Range**. Click **Add to Dashboard**. For additional instructions, see Activity 1.