

Handout for August 2022 Newsletter The Economics of Interest Rates in FRED®

Purpose.

1. Create a plot of fixed mortgage interest rates.
2. Customize the data by adding a series and applying a formula.
3. Describe and discuss patterns in the evolution of interest rates over time.

Pedagogical Rationale. This assignment requires that you first look for data and plot them into a graph. Next, you will transform the data series in the graph by applying a formula. Lastly, you will describe and discuss patterns in the evolution of the data series. These tasks will develop your proficiency in searching for, transforming, and interpreting data.

Grading. Your grade will be determined by (a) how precisely you complete the data search and graph editing tasks and (b) how accurately you interpret the data.

Steps to Search for and Transform the Data.

1. Access <https://fred.stlouisfed.org/> and search for “30-Year Fixed Rate Mortgage Average in the United States.”
2. Select “Percent, Weekly, Not Seasonally Adjusted.”
3. Click on EDIT GRAPH and select ADD LINE.
4. Search for “30-Year Fixed Rate Mortgage Average in the United States, Percent, Weekly, Not Seasonally Adjusted” and click on “Add data series.”
5. Click on EDIT LINE 2.
6. Customize the data by searching for “30-year Breakeven Inflation Rate, Percent, Not Seasonally Adjusted.” Click on “Add.”
7. Enter “a-b” in the box next to “Formula:” Click on “Apply.”
8. Click on “10Y” to limit the date range to the past 10 years.

Writing Prompts. Answer the following questions:

1. Consider the following lines in the graph: The blue line represents the average fixed interest rate charged on 30-year mortgages; The red line represents the inflation-adjusted average fixed interest rate charged on 30-year mortgages. Which line represents the real interest rate on 30-year mortgages? Which line represents the nominal interest rate?
2. Which line is consistently higher: the blue line or the red line? Why?
3. Compare the nominal interest rate in February 2022 and in June 2022. Which one is higher? Explain why nominal interest rates rise when expected inflation rises.

Notes.

1. To learn more about breakeven inflation rates, read this post from the FRED Blog: “Measuring expected inflation with breakevens.”
<https://fredblog.stlouisfed.org/2021/12/measuring-expected-inflation-with-breakevens/>
2. To learn more about inflation-adjusted mortgage interest rates, read this post from the FRED Blog: “What’s the story with mortgage rates? Accounting for inflation's effects.”
<https://fredblog.stlouisfed.org/2022/06/whats-the-story-with-mortgage-rates/>