FREDcast™ Teaching Guide

A quick guide to teaching economics with FREDcast in a semester-long course.

FREDcast FORECASTING GAME | ST. LOUIS FED

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Overview

FREDcast is an online game managed by the Research Department of the Federal Reserve Bank of St. Louis and available here: https://research.stlouisfed.org/useraccount/fredcast/. To play the game, users sign in to their free FRED® account (create a FRED® account here: https://fred.stlouisfed.org/) and choose a username. By the 20th of each month, each player must enter their one-month-ahead forecast. (For scoring and other information, go here: https://research.stlouisfed.org/useraccount/fredcast/faq/). When the latest value of an economic indicator is made public by the U.S. Bureau of Labor Statistics or the U.S. Bureau of Economic Analysis, the forecast is scored proportionally to its accuracy. Player scores are ranked both monthly and over time.

During a 16-week academic semester, the game can be played four times.[1] This guide offers suggestions for playing each round.

Week 1: First Round—Introduction

Learning Objectives

Students will be able to identify the four economic indicators forecasted in the game:

- the monthly unemployment rate, seasonally adjusted;
- the monthly change in seasonally adjusted payroll employment;
- the quarterly, annualized, seasonally adjusted growth rate in real gross domestic product (GDP); and
- the monthly percent change from a year ago in the consumer price index (CPI), seasonally adjusted.

[1] Students can be organized into leagues and their scores displayed in a leaderboard. Suggestions for setting up and managing a gamified competitive environment for playing FREDcast in the classroom are available here: https://research.stlouisfed.org/useraccount/fredcast/braggingrights.

Procedure (Estimated time: 30 minutes)

1. Review the definitions of **unemployment rate**, **employment rate**, **gross domestic product (GDP)**, and **inflation rate** in the econlowdown.org glossary: https://www.stlouisfed.org/education/glossary.

2. Choose one of the following options:
   - Display the latest value of each economic indicator from the FRED® landing page: https://fred.stlouisfed.org/. (The indicators are under the "At a Glance" tab.)
   - Display the following FRED® dashboard: https://research.stlouisfed.org/useraccount/dashboard/14957.

3. Direct the students to enter their forecast for each variable into FREDcast.

Week 8: Second Round—Extrapolation

Learning Objective

- Students will be able to recognize patterns in data over time.

Procedure (Estimated time: 30 to 60 minutes)

1. Direct the students to compare their forecasts to the actual value of each indicator and note the magnitudes of the errors.

2. Discuss how recent events proved their forecasts right or wrong. For example, an unexpected event such as a natural disaster might have affected the number of persons added to or subtracted from payroll employment.

3. Assign the students the following FRED® interactive online modules available through econlowdown.org.[2] To save class time, instruct the students to complete the modules ahead of class:
   - FRED® Interactive: FREDcasting Unemployment Rate: https://www.stlouisfed.org/education/fred-interactives/fredcasting-unemployment-rate.
   - FRED® Interactive: FREDcasting Payroll Employment: https://www.stlouisfed.org/education/fred-interactives/fredcasting-payroll-employment.
   - FRED® Interactive: FREDcasting Real GDP: https://www.stlouisfed.org/education/fred-interactives/fredcasting-real-gdp.
   - FRED® Interactive: FREDcasting Consumer Price Index: https://www.stlouisfed.org/education/fred-interactives/fredcasting-consumer-price-index.

[2] Instructions for adding content to an Econ Lowdown classroom are available here: https://www.youtube.com/watch?v=Avg3gxq2xfA.

4. Display the following FRED® dashboard: https://research.stlouisfed.org/dashboard/15336. Discuss the following:
    - Over the past 12 months, what was the smallest value of each variable?
    - Over the past 12 months, what was the largest value of each variable?
    - Over the past 12 months, what was the average value of each variable?

5. Direct the students to enter their forecast for each variable into FREDcast.

Week 8: Third Round—Determinants

Learning Objective

- Students will be able to relate core concepts in the curriculum to the task of making forecasts.

Procedure (Estimated time: 30 minutes)

1. Direct the students to compare their forecasts to the actual value of each indicator and note the magnitudes of the errors.

2. Discuss how recent events proved their forecasts right or wrong. For example, an unexpected event such as an industrial accident might have affected the supply of gasoline and CPI.

3. Display the following FRED® dashboard: https://research.stlouisfed.org/dashboard/14958. Discuss the following:
    - Compare the projected natural rate of unemployment with the current rate of unemployment. Which one is higher?
    - Compare the change in payroll employment with the Chicago Fed National Activity Index. In which direction is each moving?
    - Compare the projected growth in potential GDP with the current growth in GDP. Which one is higher?
    - Compare the all-items CPI to the CPI less food and energy. Which one is higher?

4. Direct the students to enter their forecast for each variable into FREDcast.

Week 12: Fourth Round—Other Variables

Learning Objective

- Students will be able to relate broader economic concepts in the curriculum to the task of making forecasts.

Procedure (Estimated time: 30 minutes)

1. Direct the students to compare their forecasts to the actual value of each indicator and note the magnitudes of the errors.

2. Discuss how recent events proved their forecasts right or wrong. For example, stronger demand for American goods abroad might have substantially affected the growth rate of GDP.

3. Display the following FRED® dashboard: https://research.stlouisfed.org/dashboard/17780. Discuss the following:
    - Examine the graph of housing starts. How do these data relate to GDP?
    - Examine the graph of new one family houses sold. How do these data relate to GDP?
    - Examine the graph of consumer sentiment. How do these data relate to GDP?
    - Examine the graph of producer price index (PPI) inflation. How do these data relate to CPI inflation?
    - Examine the graph of manufacturing hours. How do these data relate to payroll employment?
    - Examine the graph of initial unemployment claims. How do these data relate to the unemployment rate?

4. Direct the students to enter their forecast for each variable into FREDcast.

Summative Assessment

To evaluate student learning and skill acquisition, assign a brief reflective essay on the process of making economic forecasts. The essay can include any of the following:

- What did you learn in this course that improved your forecasts over the semester?
- How did economic news reporting affect your forecasts?
- Why do you think you had forecast errors?
- Give an example of an economic event reported in the news and explain how that event influenced your forecast for one of the four variables.