Philadelphia Research Intertemporal Stochastic Model (PRISM-II) Forecast

May 26, 2020

Federal Reserve Bank of Philadelphia
Real-Time Data Research Center
Red lines show 68% probability coverage intervals. Blue lines are forecast. Black lines are history.

PRISM-II Output from the Philadelphia Fed
Real Consumption Growth

*Consumption of Nondurables and Services

Red lines show 68% probability coverage intervals. Blue lines are forecast. Black lines are history.

PRISM-II Output from the Philadelphia Fed
Real Investment Growth*

*Gross Private Domestic Investment and Durables

Red lines show 68% probability coverage intervals. Blue lines are forecast. Black lines are history.

PRISM-II Output from the Philadelphia Fed
Unemployment Rates

Red lines show 68% probability coverage intervals. Blue lines are forecast. Black lines are history.

PRISM-II Output from the Philadelphia Fed
Core PCE Inflation

Red lines show 68% probability coverage intervals. Blue lines are forecast. Black lines are history.

PRISM-II Output from the Philadelphia Fed
Federal Funds Rate*

Note that the federal funds rate forecast is generated from the model structure, the most recent history of the funds rate, and historical correlations in the data. It is not adjusted in any way to reflect the Philadelphia Fed’s or Federal Reserve System’s views about the likely path of monetary policy.

Red lines show 68% probability coverage intervals. Blue lines are forecast. Black lines are history.

PRISM-II Output from the Philadelphia Fed
Notes
Given the unusual circumstances associated with the COVID-19 crisis, the modelers took several measures in order to bring the model projections in line with their assessment regarding the evolution of the economy over the next few quarters. These measures resulted in a conditional forecast that puts a substantial weight on judgment and on the baseline projections of professional forecasts (such as IHS Markit) for the year 2020. Consequently, the narrow 68 percent probability bands for such a year should not be interpreted as reflecting our confidence in the projections. Instead, they are a reflection of our efforts to bring into a model a shock that PRISM-II has not seen before.

Underlying Assumptions
• Real GDP growth, consumption growth, the unemployment rate, and core inflation for the second quarter of 2020 are set based on information from the May IHS Markit forecast.
• The federal funds rate is at the effective lower bound (ELB) until the end of 2023, and the two-year Treasury rate is at the ELB until the first quarter of 2021 to bring it in line with our assumption on the federal funds rate.
• Core inflation for the second half of 2020 and the unemployment rate at the end of 2020 are set based on the modelers’ judgment.
• The weighted average of government spending and net exports in 2020Q2 and 2023Q3 at the May IHS Markit baseline forecast were used to capture actual and anticipated government relief/stimulus.