A User's Guide to the Inflation Nowcasting Website

Inflation measures

Each day, the model produces nowcasts for four common inflation measures:

- **PCE.** Inflation in the price index for personal consumption expenditures, more commonly referred to as PCE inflation.
- **Core PCE.** Inflation in the PCE price index excluding food and energy, also known as core PCE inflation.
- **CPI.** Inflation in the consumer price index (CPI).
- **Core CPI.** Inflation in the CPI excluding food and energy, also known as core CPI inflation.

Inflation rates

For each measure, the model reports inflation rates in terms of:

- **Monthly inflation**: the month-over-month rate of inflation, seasonally adjusted, expressed as nonannualized percent changes; these monthly inflation rates are also used to compute the year-over-year rate of inflation in percentage terms through a given month.
- **Quarterly inflation**: the quarter-to-quarter rate of inflation, expressed in percentage terms at seasonally adjusted annualized rates (SAAR).

Inflation nowcasts

Our model produces forecasts of current inflation, commonly called "nowcasts," before the data are officially released, by nowcasting the immediate past, present, and future. The nowcasts always fill in "the next data point"—or, in some cases, the next two data points, if we judge that there is enough information available for the nowcasting model to use. For example, during the month of January, we make inflation nowcasts of December's monthly inflation rates—until they are officially released—and January's monthly inflation rates. In January we also make nowcasts of the previous year's fourth-quarter inflation rates until they are officially released, in addition to the current year's first-quarter inflation rates. But once we get to February, we know the fourth-quarter's official inflation rates, so we only need to nowcast the first-quarter's inflation rates. (At that point, we are also nowcasting January's monthly inflation rates until they are officially released and February's monthly inflation rates, and so on.)

Using the charting tool

The charting tool allows the user to plot the history of inflation nowcasts for a given inflation series (CPI, core CPI, PCE, and core PCE) for a given time frame (a particular quarter or month being nowcasted). In addition, alongside the sequence of nowcasts one can view the actual data released by the BLS or the BEA (where available) and see how the model's nowcasts compared with the actual data release. We walk through the charting tool in four steps.

Step 1: Select whether to view a sequence of quarterly, monthly (using month-over-month inflation) or monthly (using year-over-year inflation) nowcasts. For illustration purposes, suppose you are interested in viewing how quarterly nowcasts evolved for 2015:Q1, so click on the "Quarterly" tab.

Quarterly   Monthly (month-over-month)   Monthly (year-over-year)
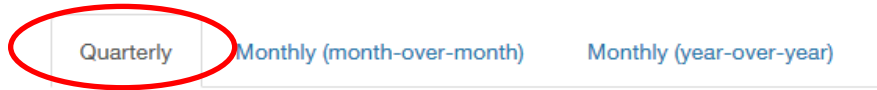
Step 2: Using the pull-down menu, choose a time period to view its nowcasts. For our example, select 2015:Q1 as the "nowcast quarter."

Quarterly   Monthly (month-over-month)   Monthly (year-over-year)

Year:Quarter 2015:Q1 ▾
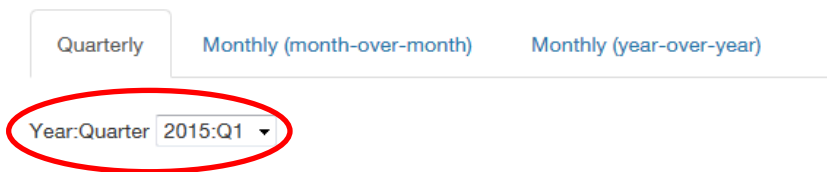
Step 3: The chart is displayed along with the legend bar that lists the names of all the series plotted. The actual data are displayed as big solid dots at the right hand side--they are only visible if the data have been released.
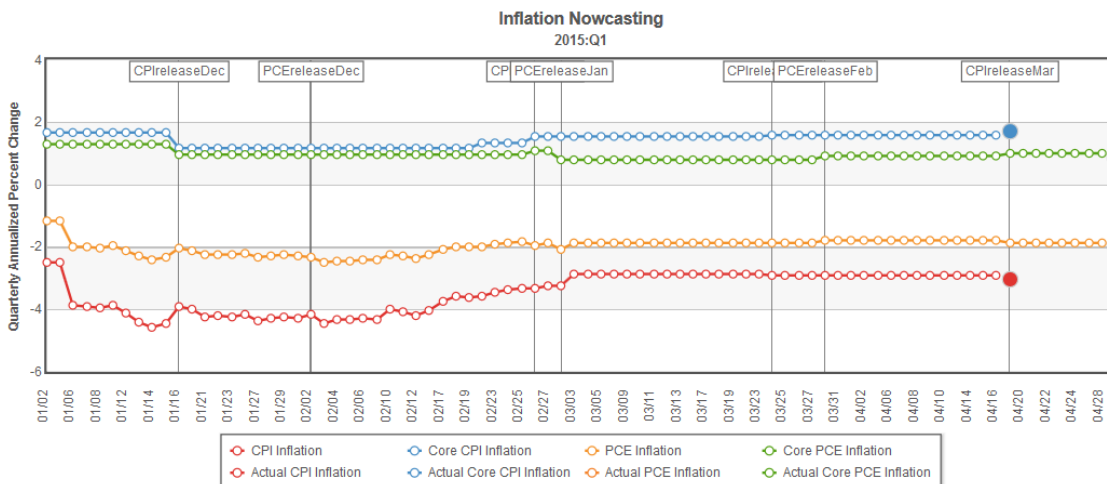
The chart also indicates monthly CPI and PCE release dates with a vertical line. Typically, these releases cause the nowcast estimates to move around compared with the previous day's nowcasts because they may contain new and unanticipated information that helps inform the nowcasts.

In our example, the red line plots the sequence of nowcasts for 2015:Q1 corresponding to CPI inflation, and the single red solid dot shows the actual CPI inflation estimate for the quarter of interest based on BLS data. The blue line corresponds to the sequence of core CPI nowcasts, the

orange line corresponds to the sequence of PCE inflation nowcasts, and the green line corresponds to the sequence of core PCE inflation nowcasts. The solid red, blue, orange, and green dots represent the actual inflation rates for each respective series. The x-axis displays the days on which the 2015:Q1 nowcasts were generated, beginning on January 2, 2015 (January 1 was not a business day), and ending on April 29, 2015, when the BEA released the quarterly PCE and core PCE inflation readings.

Step 4: One can select or deselect the series to plot by clicking on the series name in the legend bar. By default, all the available information for the selected nowcasted quarter (or month) is plotted.