

## Technical Note on the Data:

These real-time Taylor Rule estimates were calculated using three main databases:

- The [Federal Reserve Bank of Philadelphia's Real-Time Data Center for Macroeconomists](#) provides historical vintages of seasonally adjusted real GDP, nominal GDP, and PCE and core PCE price indexes. The GDP vintages begin in 1965 and the core PCE price index vintages begin in 1996:Q1. The website also publishes the Federal Reserve Greenbook estimates of the output gap from 1987 through 2006.
- For 2007-2009, the Greenbook output gap estimates are available directly from the [Federal Reserve Board of Governors](#).
- The Federal Reserve Bank of St. Louis's database for Archival Data, [ALFRED](#), provides different vintages of the CBO's measure of potential output, compiled from historical releases of the CBO's Budget and Economic Outlook.

A few notes:

- Lags: If "T" refers to the quarter corresponding to the latest available vintage of data, the last observation of data available is for quarter T-1. This is because of lags in the release of data. For example, in 2015:Q1, we only have estimates of GDP through 2014:Q4. So our computed number for inflation in period T reflects the year-over-year change from period T-5 through period T-1.
- Output Gap: As noted above, Federal Reserve Greenbook estimates of the output gap are available through 2009. We use the output gap estimates prepared for the first FOMC meeting of each quarter. For the period after 2009, we calculate a real-time output gap using the CBO's estimate of potential GDP and the first estimates of real GDP from the BEA (as compiled by the Philadelphia Fed). Base-year adjustments are made using a real-time GDP Deflator. CBO usually puts out two estimates a year, a preliminary estimate at the beginning of the year, and a revision, usually in the fall. In July 2013, the BEA undertook a comprehensive revision of its GDP estimates; as a result, real GDP estimates released in 2013:Q3 and 2013:Q4 which incorporate this new methodology cannot be compared to February 2013 CBO estimates for those quarters, which used the older GDP definition. Because of this discrepancy, our potential GDP estimates for 2013:Q3 and 2013:Q4 come from the February 2014 vintage of CBO estimates which used an updated methodology that corresponds to the BEA's. (See this [CBO report](#) for more information). This is the only occasion when a revised estimate is used rather than a real-time estimate.
- Omitted Data: For the vintage of 1996:Q1, the observation for 1995:Q4 is missing because of a delay in the data release caused by the federal government shutdown. Since no new data were available to policymakers in that quarter, that quarter is omitted.