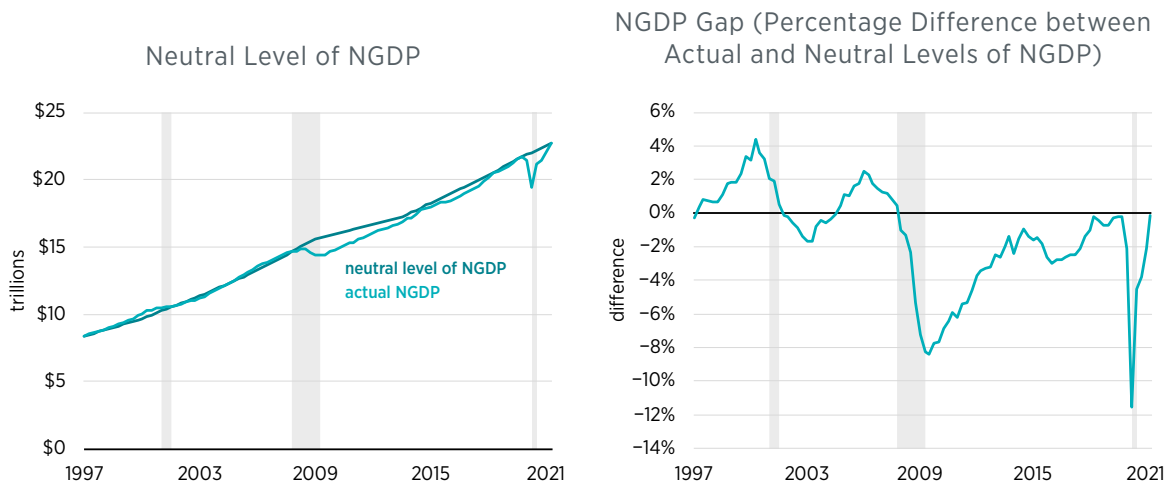




## The Neutral Level of NGDP and the NGDP Gap: Q2 2021

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Note: Shaded areas indicate recessions.

Source: Author's calculations based on Survey of Professional Forecasters (database), Federal Reserve Bank of Philadelphia, accessed July 29, 2021, <https://www.philadelphiafed.org/surveys-and-data/real-time-data-research/survey-of-professional-forecasters>.

The nominal GDP (NGDP) gap, a measure of unexpected changes in the dollar size of the US economy, is the percentage difference between the actual and the neutral levels of NGDP. The neutral level of NGDP, in turn, is a sum of all dollar incomes expected by households and businesses coming into a specific time period. In the second quarter of 2021, the NGDP gap was  $-0.10$  percent, down from the  $-2.11$  percent NGDP gap experienced in the first quarter of 2021 (see figures above).

The  $-0.10$  percent NGDP gap means that the dollar size of the economy, \$22.722 trillion, was very close to the expected \$22.746 trillion. This closing of the NGDP gap implies that aggregate

spending and income in dollar terms have largely caught up to their prepandemic trend levels.

By way of comparison, the Congressional Budget Office (CBO) output gap reveals that the real economy was 1.72 percent smaller than its true potential in the second quarter in 2021 (see table). Also, relative to the previous quarter, actual NGDP grew by 3.11 percent (13.01 percent on annualized basis) over the same period. NGDP growth in the second quarter of 2021 picked up compared to the previous quarter and is a key reason that the NGDP gap is close to zero.

Measures of NGDP, Q1 2021 vs. Q2 2021		
MEASURE	Q1 2021	Q2 2021
Neutral level NGDP (trillions)	\$22.512	\$22.746
Actual level NGDP (trillions)	\$21.038	\$22.722
NGDP gap	-2.11%	-0.10%
CBO output gap	-2.78%	-1.72%
NGDP Q/Q (annualized)	2.61% (10.86%)	3.11% (13.01%)

Source: Survey of Professional Forecasters (database); Federal Reserve Bank of St. Louis, FRED (database), accessed July 29, 2021, <https://fred.stlouisfed.org/>.

## A CLOSER LOOK AT THE NGDP GAP

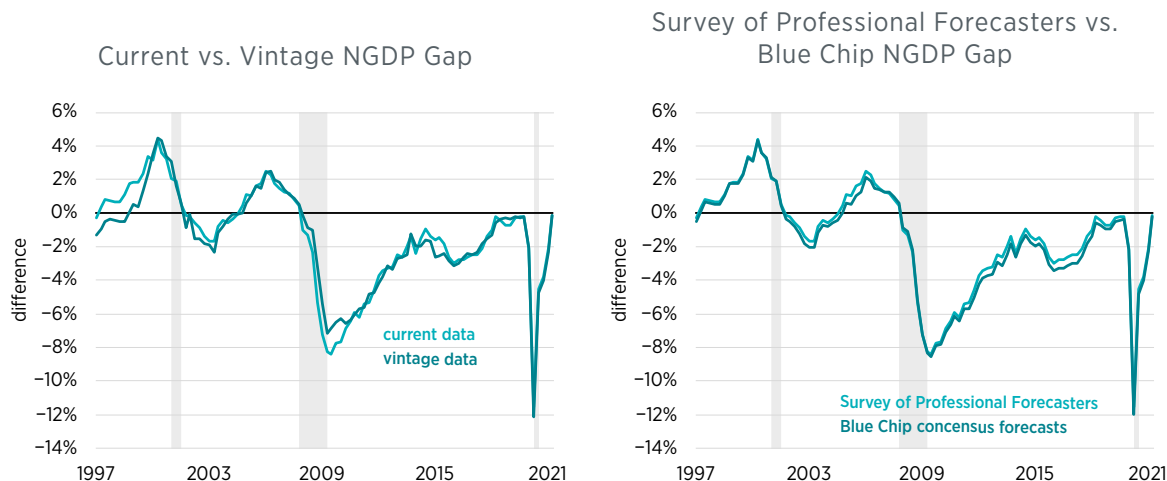
As noted, the NGDP gap requires an estimate of the neutral level of NGDP. The neutral level of NGDP is estimated by taking an average forecast of NGDP, or equivalent total nominal income, for a given quarter based on forecasts for that period from the preceding 20 quarters. The forecast data used here are taken from the Federal Reserve Bank of Philadelphia’s Survey of Professional Forecasters.

The NDGP gap measures the percentage difference between this average forecast and the actual level of NGDP. If the actual level of NGDP is less than the neutral level, then monetary conditions are contractionary. If actual NGDP is greater than the neutral level, then monetary conditions are expansionary.

The rationale for this understanding is twofold. First, members of the public make many economic decisions, such as whether to take out a mortgage or a car loan, on the basis of forecasts of their nominal income. Similarly, firms may finance with debt and commit to multiyear contracts on plants, raw materials, and labor on the basis of forecasts of their nominal income. Second, actual nominal incomes may turn out to be very different from what are expected and, as a result, may be disruptive for households and firms that are not able to quickly adjust their economic plans. These disruptions can be avoided by maintaining total nominal income or NGDP on the growth path expected by the public. In other words, the Federal Reserve should aim to close the NGDP gap in order to keep monetary conditions neutral.

To ensure robustness, I create a data series using real-time actual NGDP data (which are revised later). This series is called the vintage NGDP gap, and it contains initial-release NGDP data for each quarter. In other words, the series shows the NGDP gap, available in real time, given the initial NGDP data. In addition, I create a second version of the NGDP gap, the Blue Chip NGDP gap, using

consensus forecasts from Blue Chip Economic Indicators instead of the Survey of Professional Forecasters. This measure provides a cross-check on the use of the Survey of Professional Forecasters. Both the vintage NGDP gap and the Blue Chip NGDP gap are shown in the figures below.



Note: Shaded areas indicate recessions.  
 Source: Author's calculations based on Survey of Professional Forecasters (database); Wolters Kluwer, "Quarterly Blue Chip Forecasts," *Blue Chip Economic Indicators: Top Analysts' Forecasts of the U.S. Economic Outlook for the Year Ahead* 46, no. 7 (2021): 5.

For more information on how the NGDP gap is constructed and how it may be used to understand policy, please see "The Stance of Monetary Policy: The NGDP Gap,"<sup>1</sup> a policy brief by David Beckworth. Also, see the NGDP gap web page hosted by the Mercatus Center that provides access to current and vintage data on the NGDP gap.<sup>2</sup>

## ABOUT THE AUTHOR

David Beckworth is the director of the Program on Monetary Policy at the Mercatus Center at George Mason University and a former international economist at the US Department of the Treasury. His research focuses on monetary policy, and his work has been cited by the *Wall Street Journal*, the *Financial Times*, the *New York Times*, *Bloomberg Businessweek*, and the *Economist*. He has advised congressional staffers on monetary policy and has written for *Barron's*, *Investor's Business Daily*, the *New Republic*, the *Atlantic*, and *National Review*.

## NOTES

1. David Beckworth, "The Stance of Monetary Policy: The NGDP Gap" (Mercatus Policy Brief, Mercatus Center at George Mason University, Arlington, VA, April 2020).
2. "Measuring Monetary Policy: The NGDP Gap," Mercatus Center at George Mason University, April 22, 2020, <https://www.mercatus.org/publications/monetary-policy/measuring-monetary-policy-ngdp-gap>.