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NGDP GAP FACT SHEET

The Neutral Level of NGDP and the NGDP Gap: Q1 2022

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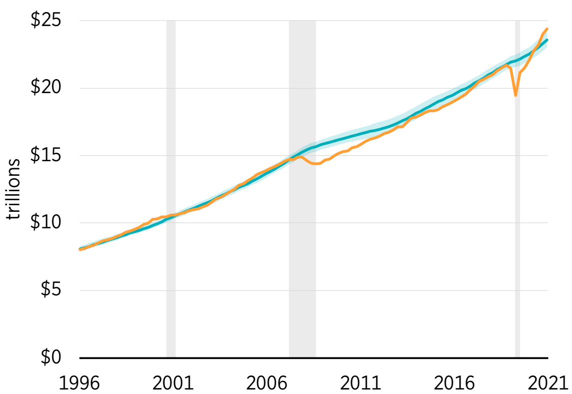
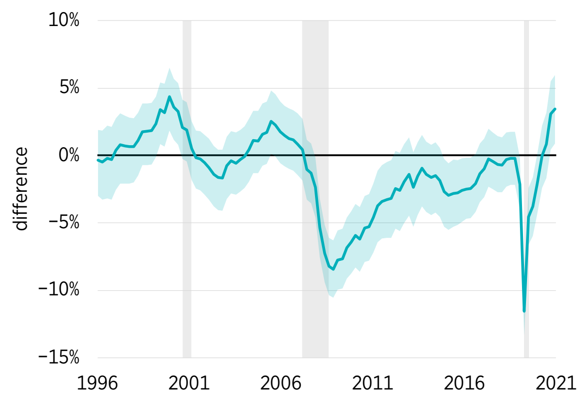
Actual and Neutral Levels of NGDP



NGDP Gap (Percentage Difference between Actual and Neutral Levels of NGDP)



Note: Shaded gray areas indicate recessions. Shaded teal areas indicate the range of forecast estimates (10th percentile to 90th percentile).
Source: Author’s calculations based on Survey of Professional Forecasters (database), Federal Reserve Bank of Philadelphia, accessed May 1, 2022, 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 calculated as the percentage difference between the actual and the neutral level 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 and is created using data from consensus forecasts. In the first quarter of 2022, the median NGDP gap rose to 3.43 percent, up slightly from the previous quarter’s value of 3.07 percent.

The 3.43 percent NGDP gap means that the dollar size of the economy, $24.38 trillion, was greater than the expected $23.57 trillion. Moreover, it was also greater than the 10th and 90th percentiles

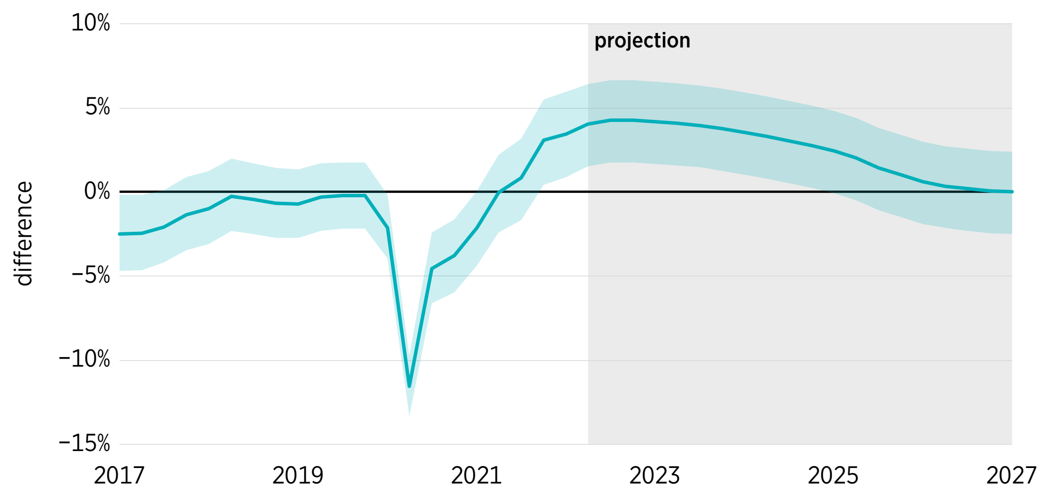
Measures of NGDP, Q4 2021 vs. Q1 2022		
MEASURE	Q4 2021	Q1 2022
Actual level of NGDP (trillions)	$24.00	$24.38
Median neutral level of NGDP (10th percentile, 90th percentile) (trillions)	$23.29 ($22.75, $23.90)	$23.57 ($23.01, $24.17)
Median NGDP gap (10th percentile, 90th percentile)	3.07% (5.49%, 0.44%)	3.43% (5.96%, 0.90%)

Source: Survey of Professional Forecasters (database); Federal Reserve Bank of St. Louis, FRED (database), accessed May 1, 2022, https://fred .stlouisfed.org/.

of the NGDP gap and shows that this gap was significantly different from zero during this time.[1] This means aggregate spending and income in dollar terms were materially higher than their expected values and that monetary policy was running hot in the first quarter of 2022.

A forecast of the NGDP gap shows the gap continuing to expand until the third quarter of 2022 and then gradually returning to zero. This forecast is depicted graphically in the figure below and shows the NGDP gap peaking at 4.28 percent in the third quarter of this year. The forecast implies the that US economy will continue to run hot through much of this year. This forecast, however, is a conditional one and will likely change as economic conditions get updated.

NGDP Gap Q1 2017–Q1 2027 (Projected)



Source: Author's calculations based on Survey of Professional Forecasters (database) and Wolters Kluwer, *Blue Chip Economic Indicators: Top Analysts' Forecasts of the U.S. Economic Outlook for the Year Ahead* (multiple issues).

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 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 actual NGDP is significantly less than the neutral level, then monetary conditions are contractionary. If actual NGDP is significantly 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 that can be used to construct an NGDP gap. In other words, it shows the NGDP gap policymakers would have seen 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 the Blue Chip Economic Indicators instead of the Survey of Professional Forecasters. This measure provides a cross-check on the use of the latter source as a main indicator. Both the vintage NGDP gap and the Blue Chip NGDP gap can be downloaded from the NGDP gap webpage hosted by the Mercatus Center.[2] The Blue Chip Economic Indicators are released monthly, and I use them to create the forecast of the NGDP gap.

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,"[3] a policy brief by David Beckworth.

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. The Survey of Professional Forecasters (SPF) reports the mean and median (50th percentile) of forecasts made by all the individual forecasters who submit their projections. The 10th and 90th percentiles are constructed using the same underlying individual data in the SPF.

2. "Measuring Monetary Policy: The NGDP Gap," Mercatus Center at George Mason University, May 2, 2022, https://www.mercatus.org/publications/monetary-policy/measuring-monetary-policy-ngdp-gap.

3. David Beckworth, "The Stance of Monetary Policy: The NGDP Gap" (Mercatus Policy Brief, Mercatus Center at George Mason University, Arlington, VA, April 2020).