The FRED® Blog

A new measure of economic health

New FRED data decomposes the evolution of monthly GDP

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FRED ECONOMIC DATA | ST. LOUIS FED

CPI **+3.2** % Chg. from Yr. Ago on Feb 2024

Civ. Unemploy. Rate **3.9** % on Feb 2024

10-Yr. Treas. Rate **4.22** % on 2024-03-22

Real GDP **+3.2** %, Comp. Annual Rate of Chg. on Q4 2023

IP **+0.1** % Chg. on Feb 2024

Payroll Employment **+275** Chg., Thous. of Persons on Feb 2024

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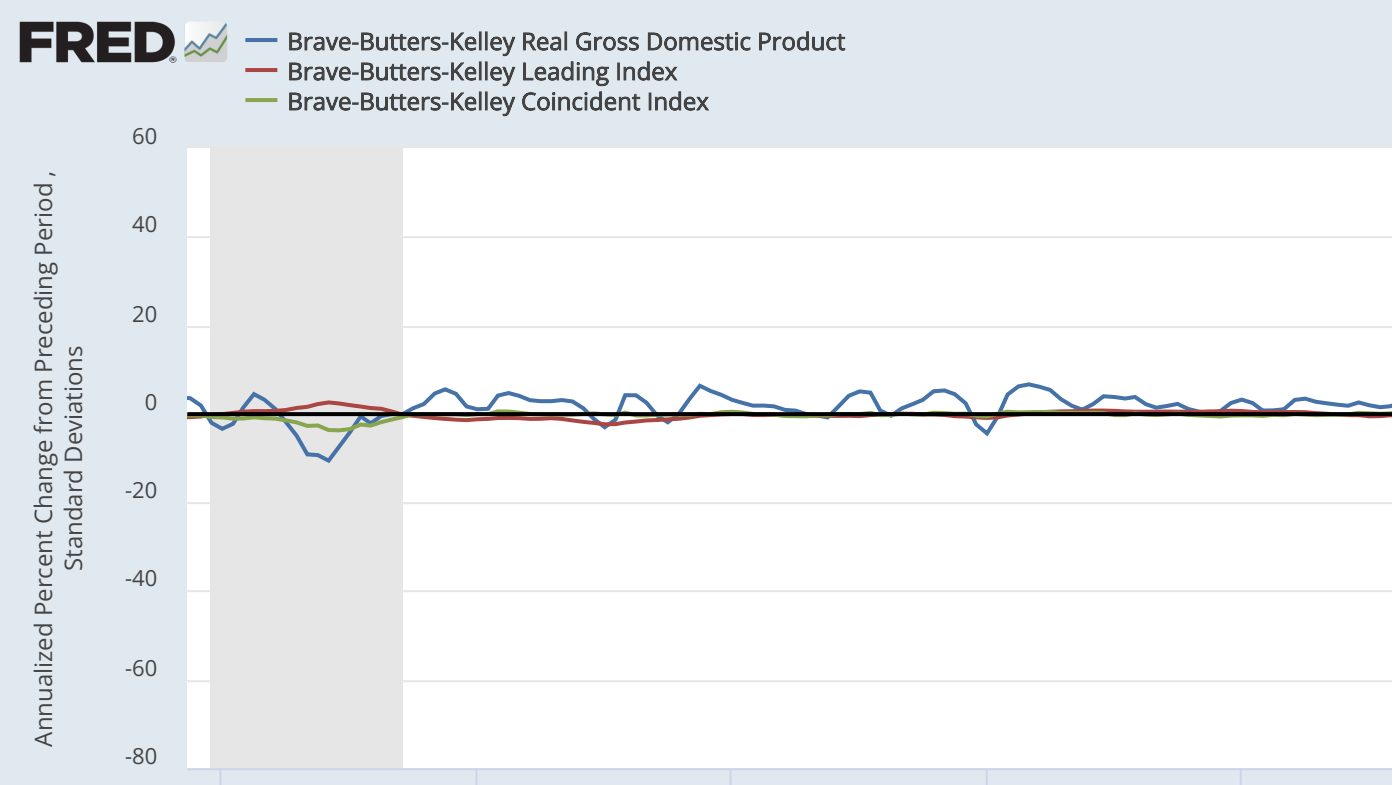

FRED just added a new family of data that can help us get a read on the U.S. economy.

The BBKI (Brave-Butters-Kelley Indexes) draw on about 500 indicators and search for some commonality among them, thanks to a technique called dynamic factor analysis. This analysis allows for an estimate of *monthly* GDP and decomposes it into different components. (GDP measures are typically quarterly, and this innovation is meant to be more timely.)

The graph above shows the monthly GDP estimate along with the coincident and leading indicators for a period spanning the past two recessions. Clearly, the leading indicator was able to accurately determine the direction of the changes in this current and strange recession. Anticipating the turning points, of course, is very difficult in forecasting.

The graph below shows a decomposition of the monthly GDP indicator into various components:

1. a trend, which varies very little through time

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Archives

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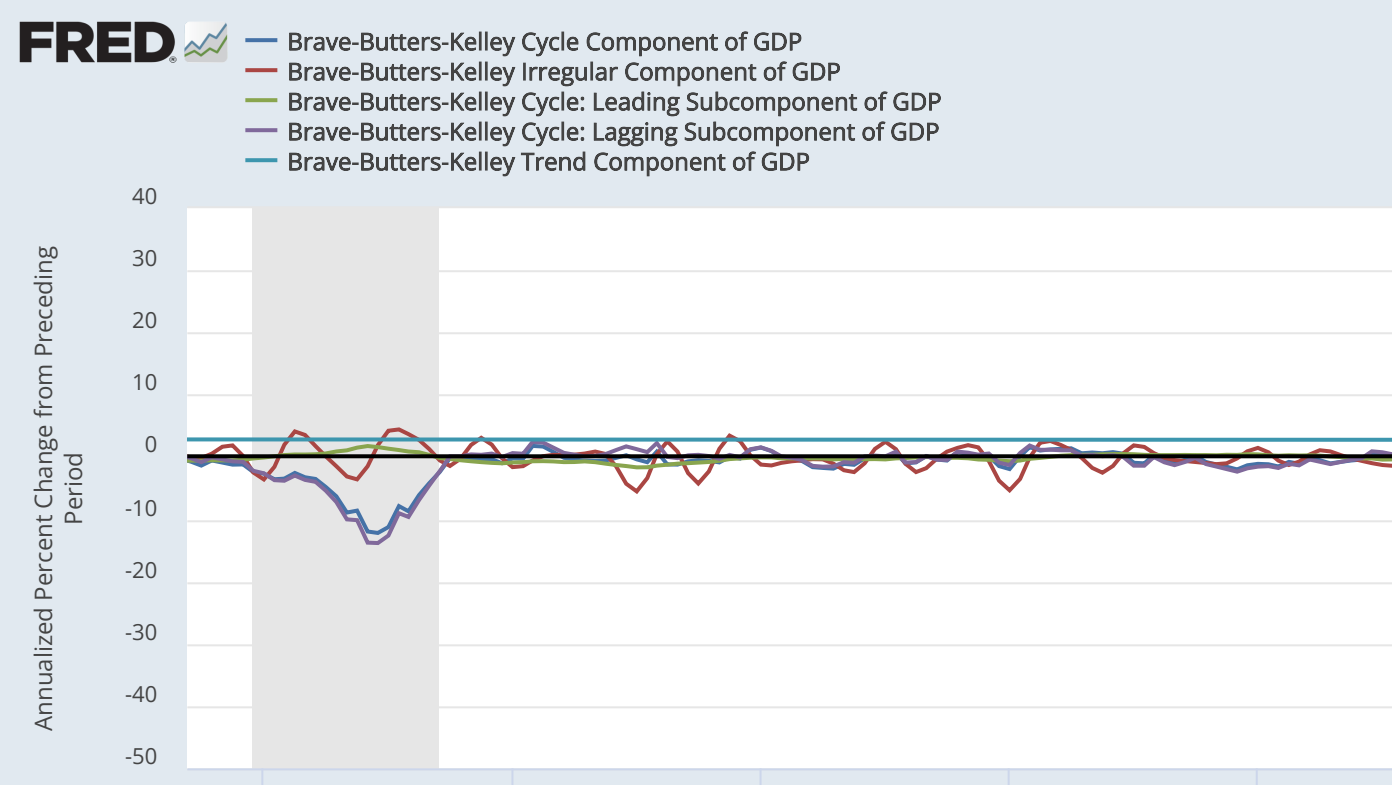
2. a leading component—that is, which current data will influence future GDP
3. a lagging component that was largely determined from the previous period
4. a cycle component—that is, a deviation from the trend that has some persistence
5. and an irregular component of random events and one-offs with no persistence.

As with many graphs lately, things are a little bit difficult to distinguish because of the scale of the data in our current environment. So let's concentrate on the past year. The graph below shows that the large swings in 2020 were due to different components. The large downturn was due to the cyclical and irregular components, but the large upswing was mostly irregular, which then swings back down. This back and forth isn't cyclical, at least not at the frequency that economists typically think a business cycle should last (2 to 8 years). And indeed, these wide swings didn't have any economic fundamentals; they were tied to the evolution of health-related concerns.



How these graphs were created: Start from the BBKI release table, check the series you want displayed, and click "Add to Graph." Adjust the time period to taste.