Brave-Butters-Kelley Indexes (BBKI)

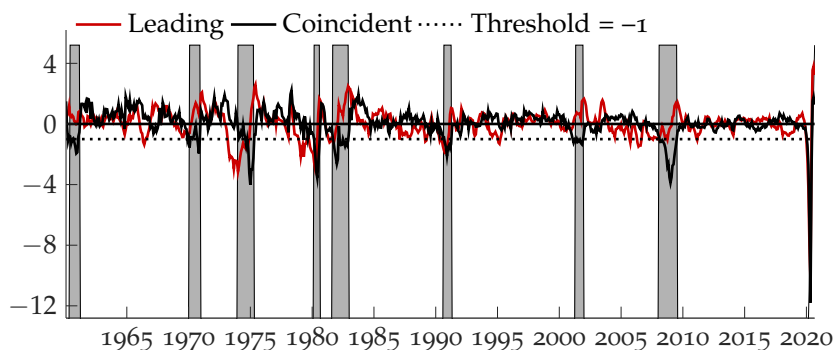*Business Cycle Indexes and Monthly GDP Growth*
August 2020

THE BRAVE-BUTTERS-KELLEY (BBK) COINCIDENT INDEX was 1.3 standard deviations from trend growth in August 2020, and the BBK LEADING INDEX was 3.2 standard deviations from trend growth. In annualized real gross domestic product (GDP) units, BBK MONTHLY GDP GROWTH was 14.0% in August. The trend component contributed 1.6%, the cycle component contributed 4.6%, and the irregular component contributed 7.8%. The leading subcomponent contributed 5.9% and the lagging subcomponent contributed –1.4% to the cycle component of BBK MONTHLY GDP GROWTH.

The Coincident and Leading Indexes and Monthly GDP Growth for the U.S. are constructed from a collapsed dynamic factor analysis of a panel of 500 monthly measures of real economic activity and quarterly real GDP growth. Monthly GDP Growth is indexed to the quarterly estimates from the U.S. Bureau of Economic Analysis and consists of three components: cycle, trend, and irregular components. The sum of the leading and lagging subcomponents of the cycle measured in standard deviation units from trend real GDP growth is the Coincident Index. Similarly, the leading subcomponent of the cycle is the Leading Index when measured in standard deviation units from trend real GDP growth.

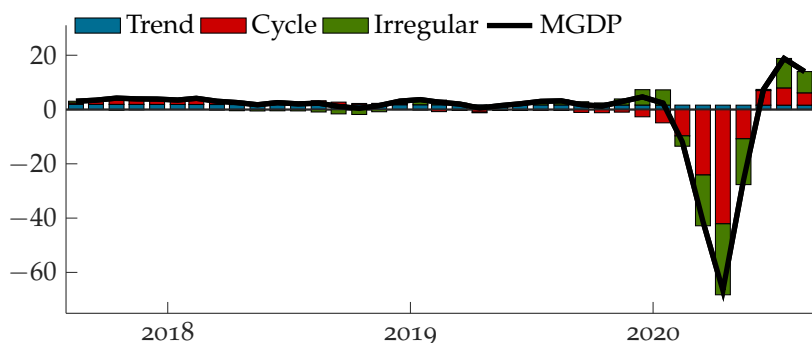| *Recent values*	Aug '20	Jul	Jun	May	Apr	Mar
Coincident Index	**1.3**	**1.8**	**1.5**	**–3.0**	**–11.8**	**–6.8**
Leading Index	**3.2**	**3.8**	**3.6**	**–0.7**	**–10.3**	**–8.0**
Cycle component	4.6	6.4	5.4	–10.8	–42.1	–24.1
Leading subcomponent	5.9	7.0	6.5	–1.3	–19.0	–14.7
Lagging subcomponent	–1.4	–0.6	–1.1	–9.5	–23.1	–9.4
Trend component	1.6	1.6	1.6	1.6	1.6	1.6
Irregular component	7.8	10.8	0.4	–16.9	–26.2	–18.7
Monthly GDP Growth	**14.0**	**18.8**	**7.4**	**–26.1**	**–66.6**	**–41.2**

All values are in annualized real GDP growth equivalent units with the exception of the Coincident and Leading Indexes, which are in standard deviation units from trend real GDP growth. The irregular component of Monthly GDP Growth is projected for a given month until quarterly real GDP is observed. Therefore, Monthly GDP Growth estimates beyond the last quarter of available GDP are also projected. The values in the table may not total because of rounding.

The shaded regions in the Business Cycle Indexes figure indicate official periods of recession for the U.S. as identified by the National Bureau of Economic Research; the vertical line indicates the most recent business cycle peak. The dashed line corresponds to the optimal threshold values described in "A 'big data' view of the U.S. economy: Introducing the Brave-Butters-Kelley Indexes." Coincident Index values below –1 have historically been associated with an elevated likelihood of a recession. Leading Index values below –1 have historically tended to signal an elevated likelihood of a recession ten months hence.

Current estimates are based on data as of October 2, 2020.

Business Cycle Indexes (standard deviations from trend)

Monthly GDP Growth (annualized)

FEDERAL RESERVE BANK OF CHICAGO

Additional information and the latest data are available online, chicagofed.org/bbki.
For more information, please contact Scott Brave at sbrave@frbchi.org.