

News Release

Embargoed for release:
8:30 am Eastern Time
7:30 am Central Time
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What is the National Activity Index?

The index is a weighted average of 85 indicators of national economic activity drawn from four broad categories of data: 1) production and income; 2) employment, unemployment, and hours; 3) personal consumption and housing; and 4) sales, orders, and inventories.

A zero value for the index indicates that the national economy is expanding at its historical trend rate of growth; negative values indicate below-average growth (in standard deviation units); and positive values indicate above-average growth.

Why are there three index values?

Each month, we provide a monthly index, its three-month moving average, and a diffusion index. Month-to-month movements can be volatile, so the monthly index's three-month moving average, the CFNAI-MA3, provides a more consistent picture of national economic growth. The CFNAI Diffusion Index captures the degree to which a change in the monthly index is spread out among its 85 indicators, averaged over a three-month period.

What do the numbers mean?

When the CFNAI-MA3 value moves below -0.70 following a period of economic expansion, there is an increasing likelihood that a recession has begun. Conversely, when the CFNAI-MA3 value moves above -0.70 following a period of economic contraction, there is an increasing likelihood that a recession has ended.

When the CFNAI-MA3 value moves above $+0.70$ more than two years into an economic expansion, there is an increasing likelihood that a period of sustained increasing inflation has begun.

The next CFNAI will be released:
February 23, 2017
8:30 am Eastern Time
7:30 am Central Time

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Chicago Fed National Activity Index

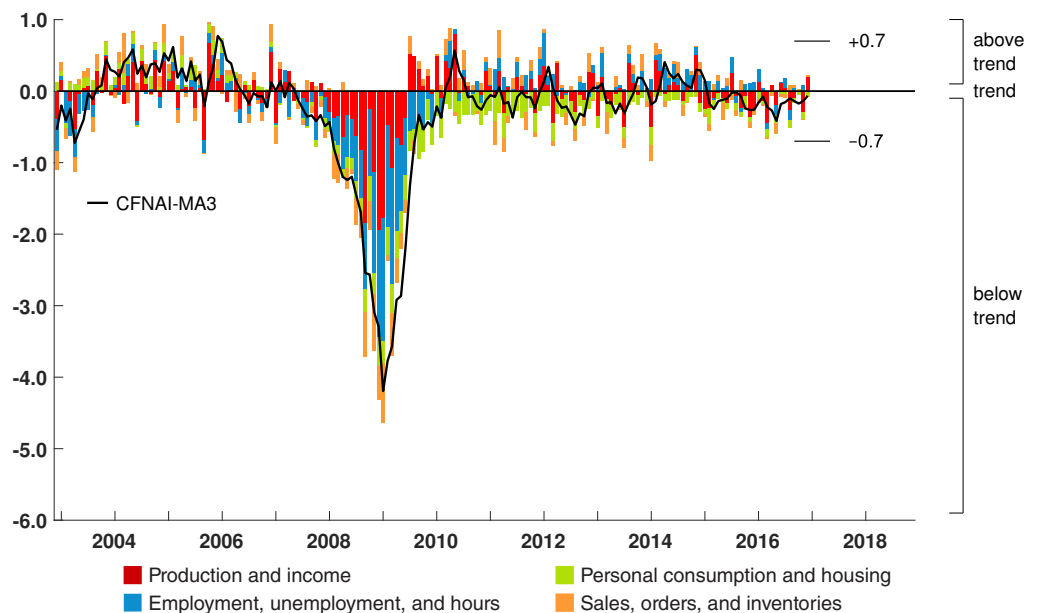
Index shows economic growth increased in December

Led by improvements in production-related indicators, the Chicago Fed National Activity Index (CFNAI) increased to $+0.14$ in December from -0.33 in November. Three of the four broad categories of indicators that make up the index increased from November, and two of the four categories made positive contributions to the index in December.

The index's three-month moving average, CFNAI-MA3, edged up to -0.07 in December from -0.14 in November. December's CFNAI-MA3 suggests that growth in national economic activity was slightly below its historical trend. The economic growth reflected in this level of the CFNAI-MA3 suggests subdued inflationary pressure from economic activity over the coming year.

The CFNAI Diffusion Index, which is also a three-month moving average, was unchanged at -0.06 in December. Thirty-seven of the 85 individual indicators made positive contributions to the CFNAI in December, while 48 made negative contributions. Fifty indicators improved from November to December, while thirty-five indicators deteriorated. Of the indicators that improved, 23 made negative contributions.

Chicago Fed National Activity Index, by Categories, and CFNAI-MA3



CFNAI, CFNAI-MA3, and CFNAI Diffusion for the Latest Six Months and Year-Ago Month

	Dec '16	Nov '16	Oct '16	Sep '16	Aug '16	Jul '16	Dec '15
CFNAI							
Current	+0.14	-0.33	-0.01	-0.08	-0.43	+0.09	-0.21
Previous	N/A	-0.27	-0.05	-0.11	-0.45	+0.12	-0.22
CFNAI-MA3							
Current	-0.07	-0.14	-0.17	-0.14	-0.10	-0.15	-0.26
Previous	N/A	-0.14	-0.20	-0.15	-0.09	-0.13	-0.26
CFNAI Diffusion							
Current	-0.06	-0.06	-0.17	-0.10	-0.05	-0.11	-0.17
Previous	N/A	-0.15	-0.23	-0.10	-0.02	-0.05	-0.16

Current and Previous values reflect index values as of the January 26, 2017, release and December 22, 2016, release, respectively. N/A indicates not applicable.

The contribution from production-related indicators to the CFNAI jumped to +0.20 in December from -0.30 in November. Total industrial production increased 0.8 percent in December after decreasing 0.7 percent in November. In addition, the sales, orders, and inventories category made a contribution of +0.02 to the CFNAI in December, up from -0.01 in November.

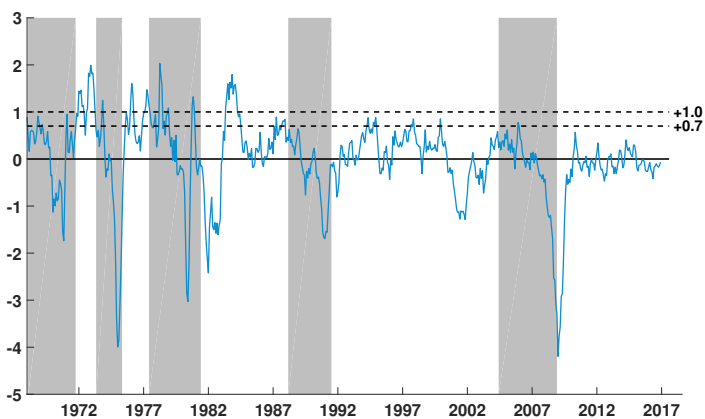
The contribution of the personal consumption and housing category to the CFNAI increased to -0.06 in December from -0.10 in November. Housing starts increased to 1,226,000 annualized units in December from 1,102,000 in November, but housing permits ticked down to 1,210,000 annualized units in December from 1,212,000 in the previous month.

Employment-related indicators contributed -0.01 to the CFNAI in December, down from +0.08 in November. The civilian unemployment rate increased to 4.7 percent in December from 4.6 percent

in November, and nonfarm payrolls increased by 156,000 in December after rising by 204,000 in the previous month.

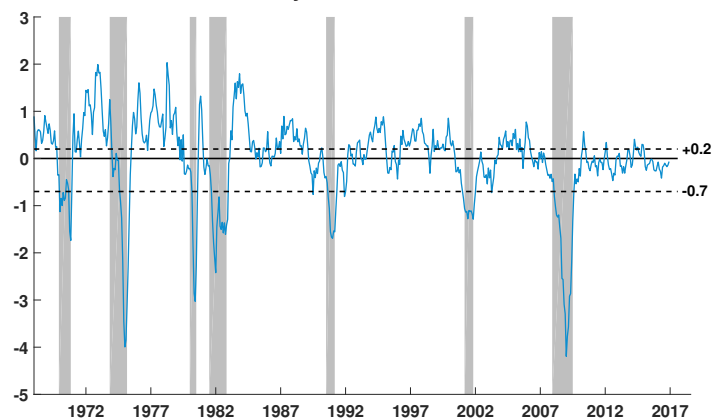
The CFNAI was constructed using data available as of January 24, 2017. At that time, December data for 50 of the 85 indicators had been published. For all missing data, estimates were used in constructing the index. The November monthly index value was revised to -0.33 from an initial estimate of -0.27, and the October monthly index value was revised to -0.01 from last month's estimate of -0.05. Revisions to the monthly index value can be attributed to two main factors: revisions in previously published data and differences between the estimates of previously unavailable data and subsequently published data. The revision to the November monthly index value was primarily due to the former, while the revision to the October monthly index value was primarily due to the latter.

CFNAI-MA3 and Inflation Cycles



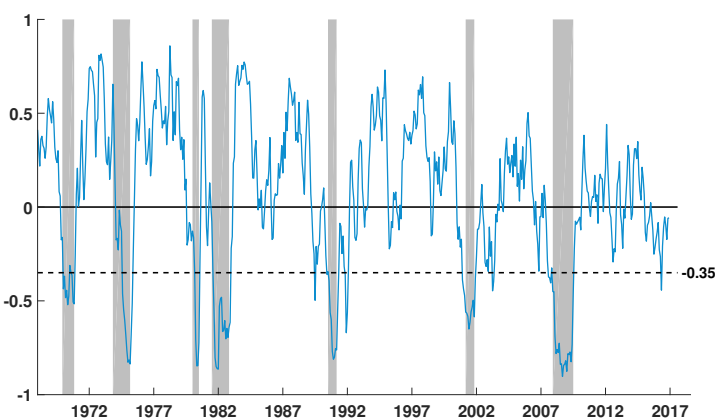
Notes: Shading represents periods of substantial inflation increases. A CFNAI-MA3 value above +0.70 more than two years into an economic expansion indicates an increasing likelihood that a period of sustained increasing inflation has begun. A CFNAI-MA3 value above +1.00 more than two years into an economic expansion indicates a substantial likelihood that a period of sustained increasing inflation has begun.

CFNAI-MA3 and Business Cycles



Notes: Shading indicates official periods of recession as identified by the National Bureau of Economic Research. A CFNAI-MA3 value below -0.70 following a period of economic expansion indicates an increasing likelihood that a recession has begun. A CFNAI-MA3 value above -0.70 following a period of economic contraction indicates an increasing likelihood that a recession has ended. A CFNAI-MA3 value above +0.20 following a period of economic contraction indicates a significant likelihood that a recession has ended.

CFNAI Diffusion Index



Notes: Shading indicates official periods of recession as identified by the National Bureau of Economic Research. The CFNAI Diffusion Index represents the three-month moving average of the sum of the absolute values of the weights for the underlying indicators whose contribution to the CFNAI is positive in a given month less the sum of the absolute values of the weights for those indicators whose contribution is negative or neutral in a given month. Periods of economic expansion have historically been associated with values of the CFNAI Diffusion Index above -0.35.

CFNAI, Monthly Index

