

## News Release

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8:30 am Eastern 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; 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:

June 23, 2014

8:30 am Eastern Time

7:30 am Central Time

FEDERAL RESERVE BANK  
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# Chicago Fed National Activity Index

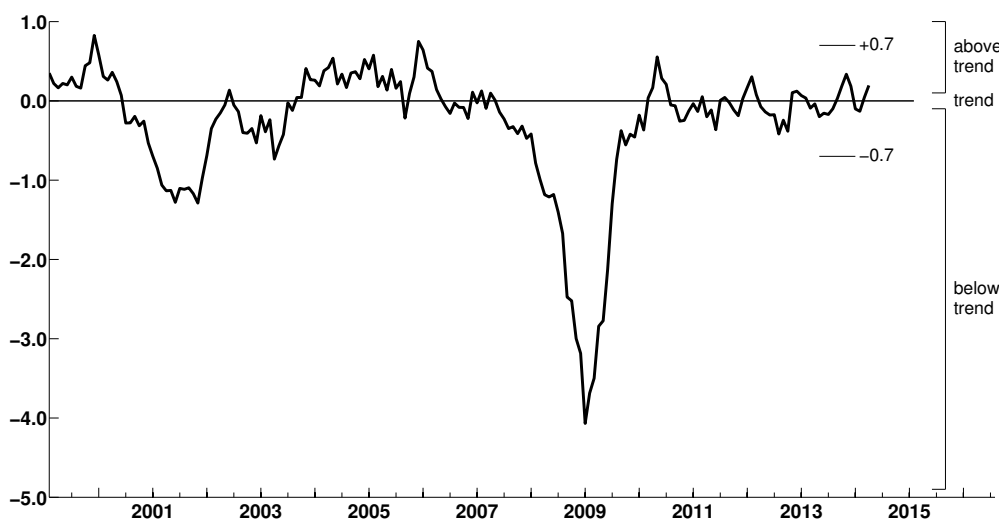
## Index shows economic growth moderated in April

Led by declines in production-related indicators, the Chicago Fed National Activity Index (CFNAI) decreased to  $-0.32$  in April from  $+0.34$  in March. Two of the four broad categories of indicators that make up the index made negative contributions to the index in April, and two of the four categories decreased from March.

The index's three-month moving average, CFNAI-MA3, increased to  $+0.19$  in April from  $+0.04$  in March, marking its second consecutive reading above zero and its highest value since November 2013. April's CFNAI-MA3 suggests that growth in national economic activity was slightly above its historical trend. The economic growth reflected in this level of the CFNAI-MA3 suggests limited inflationary pressure from economic activity over the coming year.

The CFNAI Diffusion Index, which is also a three-month moving average, increased to  $+0.18$  in April from  $+0.08$  in March. Thirty-four of the 85 individual indicators made positive contributions to the CFNAI in April, while 51 made negative contributions. Thirty-seven indicators improved from March to April, while 47 indicators deteriorated and one was unchanged. Of the indicators that improved, 15 made negative contributions.

Chicago Fed National Activity Index, Three-Month Moving Average (CFNAI-MA3)



### CFNAI, CFNAI-MA3, and CFNAI Diffusion for the latest six months and year-ago month

	Apr '14	Mar '14	Feb '14	Jan '14	Dec '13	Nov '13	Apr '13
<b>CFNAI</b>							
Current	-0.32	+0.34	+0.57	-0.77	-0.19	+0.66	-0.34
Previous	N/A	+0.20	+0.53	-0.74	-0.21	+0.66	-0.34
<b>CFNAI-MA3</b>							
Current	+0.19	+0.04	-0.13	-0.10	+0.18	+0.34	-0.04
Previous	N/A	0.00	-0.14	-0.09	+0.17	+0.33	-0.04
<b>CFNAI Diffusion</b>							
Current	+0.18	+0.08	-0.16	-0.07	+0.21	+0.42	+0.01
Previous	N/A	+0.04	-0.14	-0.07	+0.21	+0.42	+0.02

Current and Previous values reflect index values as of the May 22, 2014, release and April 21, 2014, release, respectively. N/A indicates not applicable.

Production-related indicators contributed  $-0.37$  to the CFNAI in April, down from  $+0.27$  in March. Manufacturing production decreased 0.4 percent in April after rising 0.7 percent in March, and manufacturing capacity utilization decreased to 76.4 percent in April from 76.9 percent in the previous month.

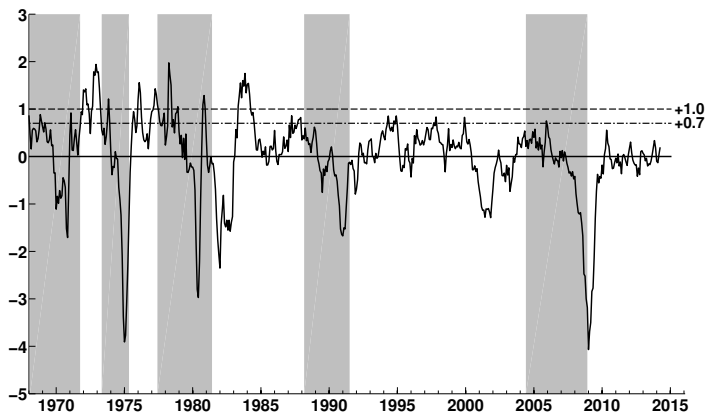
The contribution from the consumption and housing category to the CFNAI moved down to  $-0.12$  in April from  $-0.07$  in March. Consumption indicators, on balance, declined, pushing the category's contribution lower. However, housing starts increased to 1,072,000 annualized units in April from 947,000 in March, and housing permits increased to 1,080,000 annualized units in April from 1,000,000 in the previous month.

Employment-related indicators contributed  $+0.17$  to the CFNAI in April, up from  $+0.15$  in March. The unemployment rate decreased

to 6.3 percent in April from 6.7 percent in March, and nonfarm payrolls increased 0.2 percent in April after increasing 0.1 percent in the previous month. The sales, orders, and inventories category made a neutral contribution to the CFNAI in April, up slightly from  $-0.01$  in March.

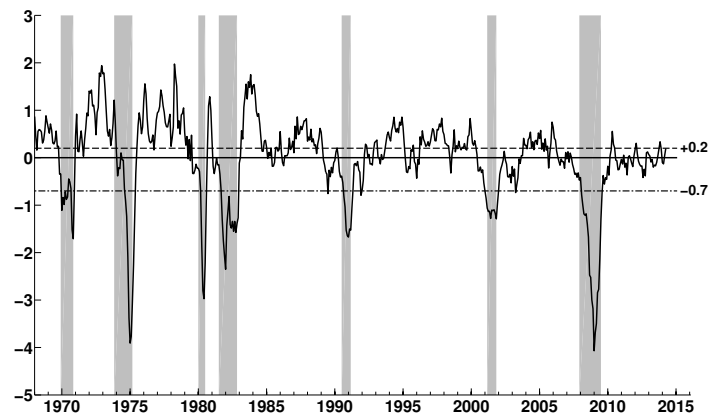
The CFNAI was constructed using data available as of May 20, 2014. At that time, April data for 49 of the 85 indicators had been published. For all missing data, estimates were used in constructing the index. The March monthly index was revised to  $+0.34$  from an initial estimate of  $+0.20$ . Revisions to the monthly index 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 March monthly index was due primarily to the former.

### CFNAI-MA3 and Inflation Cycles



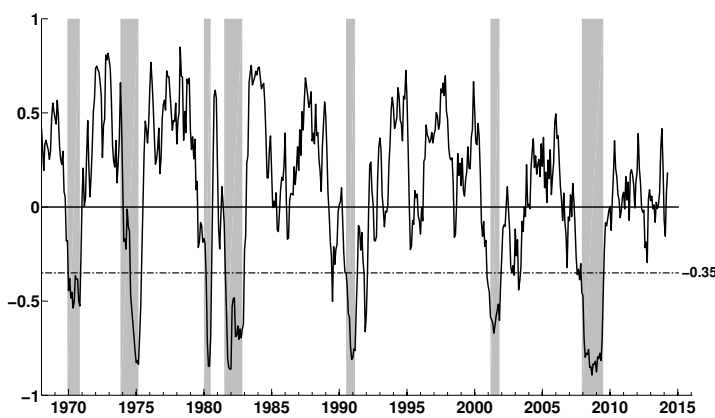
Notes: Shading represents periods of substantial inflation increases. A CFNAI-MA3 value above  $+0.70$  more than two years into an economic expansion indicates an increasing likelihood that a period of sustained increasing inflation has begun. A CFNAI-MA3 value above  $+1.00$  more than two years into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



Notes: Shading indicates official periods of recession as identified by the National Bureau of Economic Research. The CFNAI Diffusion Index represents 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 three-month moving average of the CFNAI Diffusion Index above  $-0.35$ .

### CFNAI, Monthly Index

