# **News Release**

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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: July 22, 2013 8:30 am Eastern Time 7:30 am Central Time

### FEDERAL RESERVE BANK OF CHICAGO

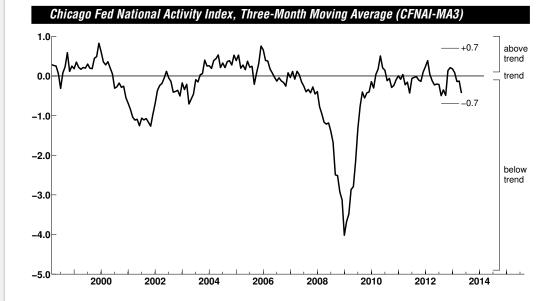
# Chicago Fed National Activity Index

## Index shows economic activity slightly improved in May

Led by improvements in production-related indicators, the Chicago Fed National Activity Index (CFNAI) increased to -0.30 in May from -0.52 in April. Two of the four broad categories of indicators that make up the index increased from April, but only one of the four categories made a positive contribution to the index in May.

The index's three-month moving average, CFNAI-MA3, decreased to -0.43 in May from -0.13 in April, marking its third consecutive reading below zero and its lowest level since October 2012. May's CFNAI-MA3 suggests that growth in national economic activity was 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 decreased to -0.35 in May from -0.08 in April. Thirty-three of the 85 individual indicators made positive contributions to the CFNAI in May, while 52 made negative contributions. Forty-nine indicators improved from April to May, while 35 indicators deteriorated. Of the indicators that improved, 25 made negative contributions.



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

	May '13	Apr '13	Mar '13	Feb '13	Jan '13	Dec '12	May '12
CFNAI							-
Current	-0.30	-0.52	-0.48	+0.61	-0.55	+0.18	-0.12
Previous	N/A	-0.53	-0.23	+0.63	-0.56	+0.19	-0.10
CFNAI-MA3							
Current	-0.43	-0.13	-0.14	+0.08	+0.18	+0.21	-0.23
Previous	N/A	-0.04	-0.05	+0.08	+0.17	+0.20	-0.23
<b>CFNAI</b> Diffusion							
Current	-0.35	-0.08	-0.07	+0.08	+0.04	+0.08	-0.04
Previous	N/A	-0.03	-0.04	+0.07	+0.06	+0.08	-0.03

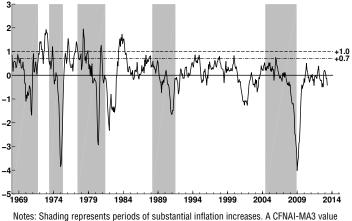
Current and Previous values reflect index values as of the June 24, 2013, release and May 20, 2013, release, respectively. N/A indicates not applicable.

Production-related indicators contributed –0.10 to the CFNAI in May, up from –0.33 in April. The level of industrial production was unchanged in May after decreasing 0.4 percent in April. However, the Institute for Supply Management's Manufacturing Purchasing Managers' Index fell below 50 in May, decreasing to 49.0 from 50.7 in April.

Employment-related indicators contributed +0.01 to the CFNAI in May, up from -0.06 in April. The unemployment rate ticked up to 7.6 percent in May from 7.5 percent in April, but nonfarm payrolls rose by 175,000 in May after increasing by 149,000 in the previous month.

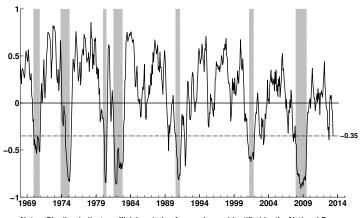
The contribution from the consumption and housing category to the CFNAI in May was unchanged from the previous month at -0.17. Housing permits decreased to 974,000 annualized units in May from 1,005,000 in April, while housing starts increased to 914,000 annualized units in May from 856,000 in the previous month.

### **CFNAI-MA3 and Inflation Cycles**



Notes: Shading represents periods of substantial inflation increases. A CFNAI-MAX 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.



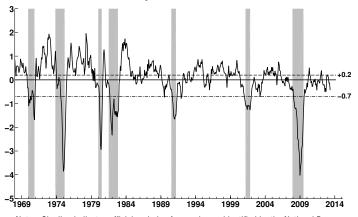


Notes: Shading indicates official periods of recession as identified by the National Bureau of Economic Research. The CFNAI Diffusion Index represents the sum of the absolute values of the weights for the underlying indicators whose contribution to the CFNAI is positive in a given month less the sum 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.

The contribution from the sales, orders, and inventories category to the CFNAI in May was also negative, moving down to -0.04 from +0.03 in April.

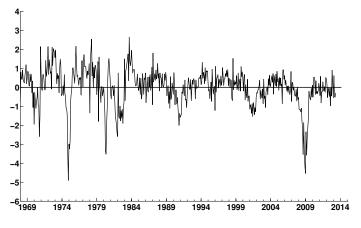
The CFNAI was constructed using data available as of June 20, 2013. At that time, May data for 51 of the 85 indicators had been published. For all missing data, estimates were used in constructing the index. The April monthly index was revised to -0.52 from an initial estimate of -0.53, and the March monthly index was revised to -0.48 from last month's estimate of -0.23. 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 April monthly index was due primarily to the former, while the revision to the March monthly index was due primarily to the latter.

#### **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 an increasing likelihood that a recession has ended.





CFNAI release dates, historical data, and background information are available at www.chicagofed.org/cfnai.