

## News Release

Embargoed for release:  
**8:30 am Eastern Time**  
**7:30 am Central Time**  
**July 23, 2012**

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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:**  
**August 20, 2012**  
**8:30 am Eastern Time**  
**7:30 am Central Time**

**FEDERAL RESERVE BANK  
 OF CHICAGO**

# Chicago Fed National Activity Index

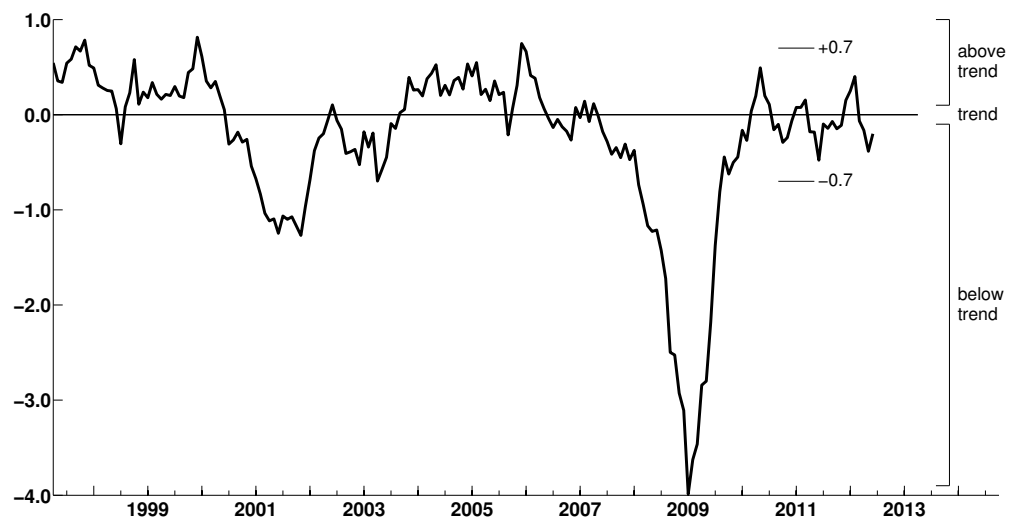
## Index shows economic activity increased in June

*Led by improvements in production-related indicators, the Chicago Fed National Activity Index (CFNAI) increased to  $-0.15$  in June from  $-0.48$  in May. Two of the four broad categories of indicators that make up the index improved from May, but only the production and income category made a positive contribution in June.*

The index's three-month moving average, CFNAI-MA3, increased from  $-0.38$  in May to  $-0.20$  in June—its fourth consecutive reading below zero. June'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 also moved up in June, rising to  $-0.08$  from  $-0.22$  in the previous month. Forty of the 85 individual indicators made positive contributions to the CFNAI in June, while 45 made negative contributions. Forty-two indicators improved from May to June, while 43 indicators deteriorated. Of the indicators that improved, 14 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

	Jun '12	May '12	Apr '12	Mar '12	Feb '12	Jan '12	Jun '11
<b>CFNAI</b>							
Current	-0.15	-0.48	+0.04	-0.71	+0.18	+0.33	-0.32
Previous	N/A	-0.45	+0.08	-0.64	+0.19	+0.30	-0.32
<b>CFNAI-MA3</b>							
Current	-0.20	-0.38	-0.16	-0.07	+0.40	+0.25	-0.48
Previous	N/A	-0.34	-0.13	-0.05	+0.39	+0.24	-0.48
<b>CFNAI Diffusion</b>							
Current	-0.08	-0.22	+0.03	+0.11	+0.42	+0.23	-0.18
Previous	N/A	-0.20	+0.06	+0.12	+0.41	+0.21	-0.18

Current and Previous values reflect index values as of the July 23, 2012, release and June 25, 2012, release, respectively. N/A indicates not applicable.

The contribution from production-related indicators to the CFNAI increased to +0.13 in June from -0.27 in May. Total industrial production rose 0.4 percent in June after edging down 0.2 percent in May, and manufacturing production increased 0.7 percent in June after decreasing 0.7 percent in the previous month. Likewise, manufacturing capacity utilization moved up to 77.7 percent from 77.3 percent over the same period.

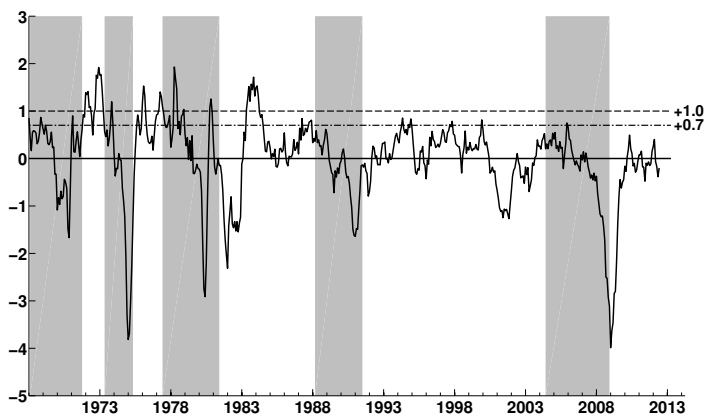
The contribution from the consumption and housing category to the CFNAI also increased, edging up to -0.23 in June from -0.26 in May. Housing starts rose to 760,000 annualized units in June from 711,000 in May, but housing permits decreased to 755,000 annualized units from 784,000 over the same period.

Employment-related indicators made a neutral contribution to the CFNAI in June, down from +0.05 in May. Total payroll employment

increased by 80,000 in June following a gain of 77,000 in May; however, civilian employment increased by 128,000 in June after recording a gain of 422,000 in the previous month. The contribution from the sales, orders, and inventories category to the CFNAI in June was also lower, decreasing to -0.06 from a neutral contribution in May.

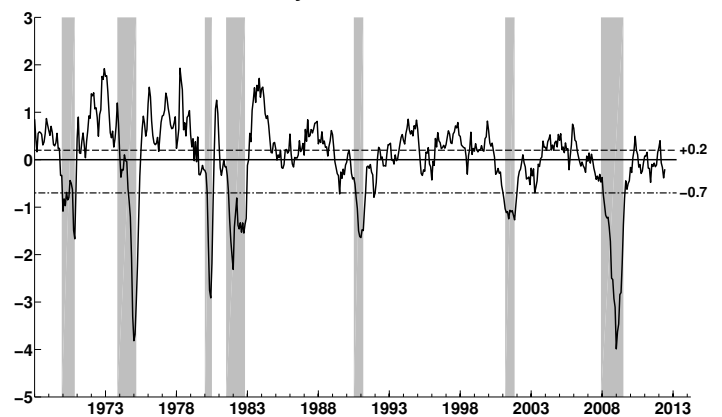
The CFNAI was constructed using data available as of July 19, 2012. At that time, June data for 51 of the 85 indicators had been published. For all missing data, estimates were used in constructing the index. The May monthly index was revised to -0.48 from an initial estimate of -0.45. Revisions to the 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 May monthly index was due primarily to the former.

### CFNAI-MA3 and Inflation Cycles



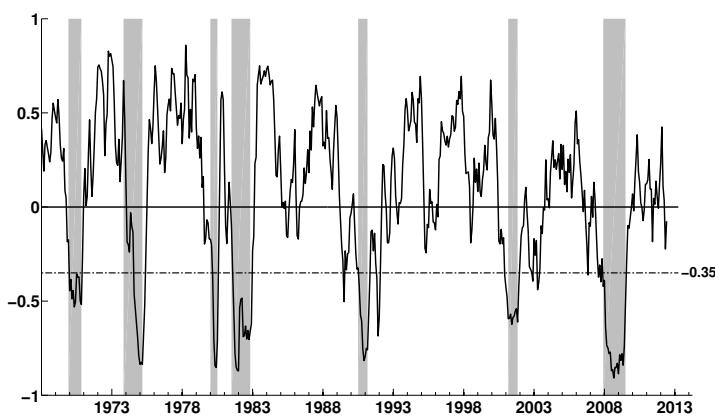
Notes: Shading represents periods of substantial inflation increases. A CFNAI-MA3 value above +0.70 more than two years into an economic expansion indicates an increasing likelihood that a period of sustained increasing inflation has begun. A CFNAI-MA3 value above +1.00 more than two years into an economic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

