

## 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:

September 24, 2012

8:30 am Eastern Time

7:30 am Central Time

FEDERAL RESERVE BANK  
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# Chicago Fed National Activity Index

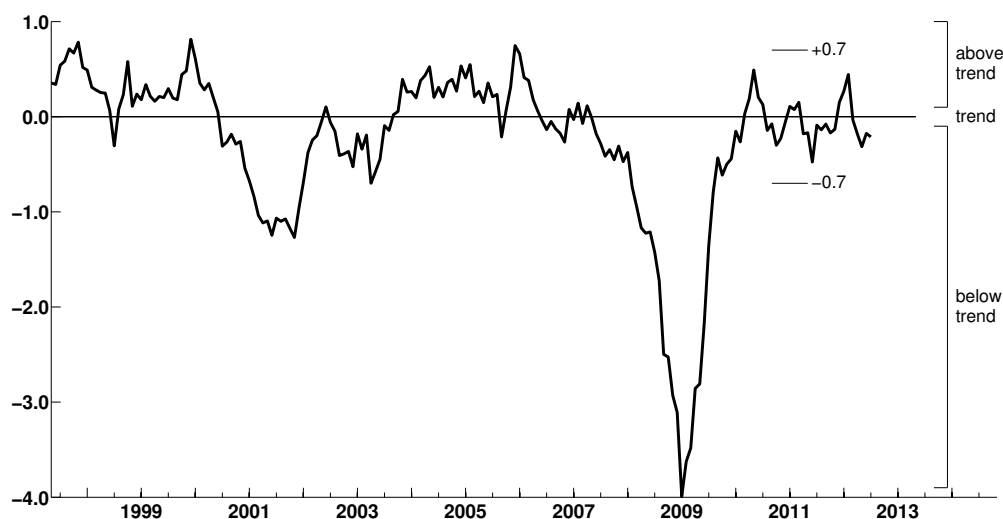
## Index shows economic activity increased in July

Led by improvements in production-related indicators, the Chicago Fed National Activity Index (CFNAI) increased to  $-0.13$  in July from  $-0.34$  in June. Three of the four broad categories of indicators that make up the index improved from June, but only the production and income category made a positive contribution in July.

The index's three-month moving average, CFNAI-MA3, decreased slightly from  $-0.18$  in June to  $-0.21$  in July—its fifth consecutive reading below zero. July'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 lower in July, ticking down to  $-0.05$  from  $-0.02$  in June. Forty-nine of the 85 individual indicators made positive contributions to the CFNAI in July, while 36 made negative contributions. Fifty-six indicators improved from June to July, while 28 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

	Jul '12	Jun '12	May '12	Apr '12	Mar '12	Feb '12	Jul '11
<b>CFNAI</b>							
Current	-0.13	-0.34	-0.17	-0.02	-0.75	+0.23	+0.35
Previous	N/A	-0.15	-0.48	+0.04	-0.71	+0.18	+0.27
<b>CFNAI-MA3</b>							
Current	-0.21	-0.18	-0.31	-0.18	-0.03	+0.44	-0.09
Previous	N/A	-0.20	-0.38	-0.16	-0.07	+0.40	-0.10
<b>CFNAI Diffusion</b>							
Current	-0.05	-0.02	-0.09	+0.09	+0.15	+0.46	+0.04
Previous	N/A	-0.08	-0.22	+0.03	+0.11	+0.42	+0.05

Current and Previous values reflect index values as of the August 20, 2012, release and July 23, 2012, release, respectively. N/A indicates not applicable.

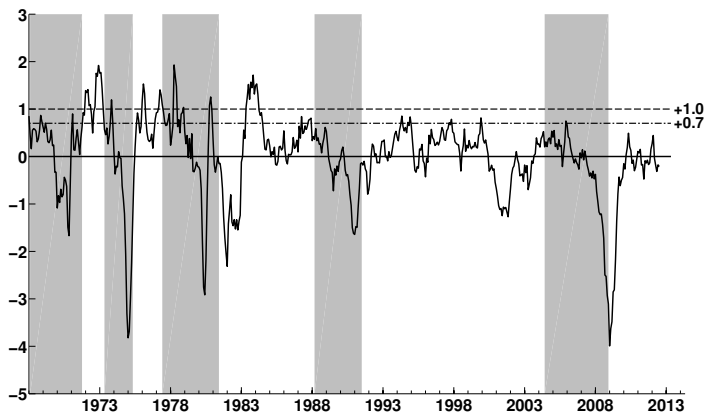
The contribution from production-related indicators to the CFNAI increased to +0.12 in July from +0.01 in June. Total industrial production rose 0.6 percent in July after increasing 0.1 percent in June, and production of durable consumer goods rose 1.5 percent in July after edging up 0.1 percent in the previous month.

The contribution from the consumption and housing category to the CFNAI also increased in July, moving up to -0.22 from -0.28 in June. Housing starts decreased slightly to 746,000 annualized units in July from 754,000 in June, but housing permits rose to 812,000 annualized units from 760,000 over the same period. The contribution from the sales, orders, and inventories category to the CFNAI was also higher in July, increasing to -0.01 from -0.09 in June.

The contribution from employment-related indicators to the CFNAI decreased in July, moving down to -0.03 from +0.02 in June. Civilian employment decreased by 0.1 percent in July after increasing by a similar amount in June, and the unemployment rate inched up to 8.3 percent in July after holding steady in June.

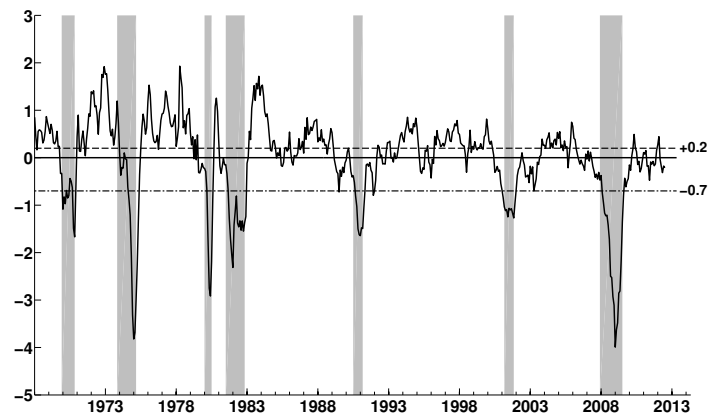
The CFNAI was constructed using data available as of August 17, 2012. At that time, July data for 51 of the 85 indicators had been published. For all missing data, estimates were used in constructing the index. The June monthly index was revised to -0.34 from an initial estimate of -0.15. Revisions to 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 June monthly index was due primarily to the former.

### CFNAI-MA3 and Inflation Cycles



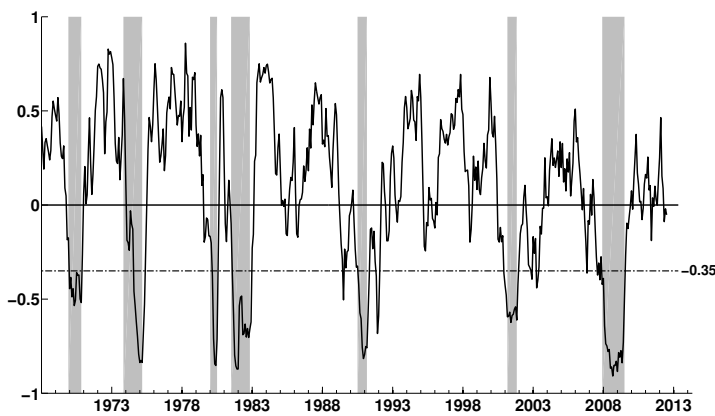
Notes: Shading represents periods of substantial inflation increases. A CFNAI-MA3 value above +0.70 more than two years into an economic expansion indicates an increasing likelihood that a period of sustained increasing inflation has begun. A CFNAI-MA3 value above +1.00 more than two years into an economic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

