

## News Release

Embargoed for release:  
8:30 am Eastern Time  
7:30 am Central Time  
February 25, 2013

Contact:  
Laura LaBarbera  
Media Relations  
Federal Reserve Bank of Chicago  
312-322-2387

### 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:  
March 25, 2013  
8:30 am Eastern Time  
7:30 am Central Time

FEDERAL RESERVE BANK  
OF CHICAGO

# Chicago Fed National Activity Index

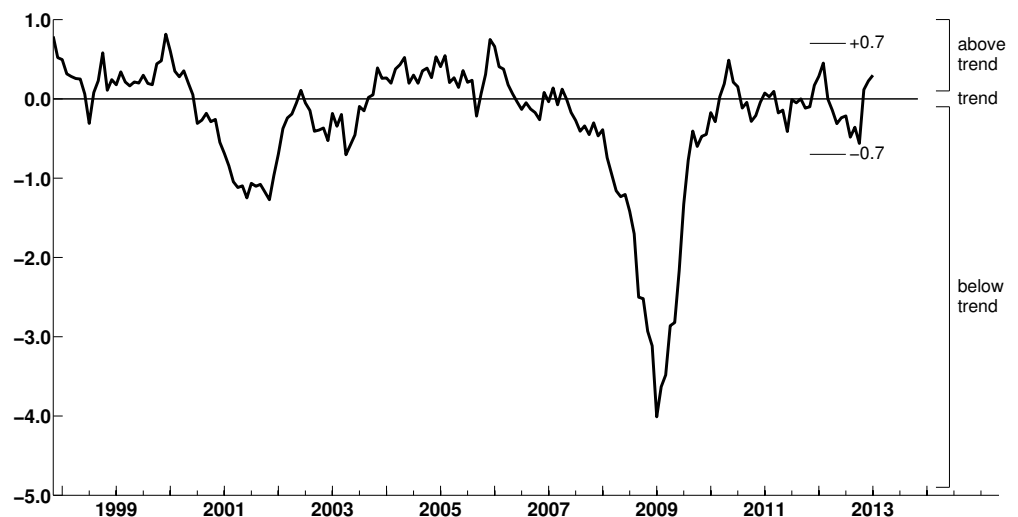
## Index shows economic growth moderated in January

Led by declines in production-related indicators, the Chicago Fed National Activity Index (CFNAI) decreased to  $-0.32$  in January from  $+0.25$  in December. Three of the four broad categories of indicators that make up the index decreased from December, and only two of the four categories made positive contributions to the index in January.

The index's three-month moving average, CFNAI-MA3, increased to  $+0.30$  in January from  $+0.23$  in December. Given the substantial upward revisions for November and December, January's CFNAI-MA3 marked the third consecutive reading above zero. Additionally, January's reading suggests that growth in national economic activity was somewhat 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 also moved up in January, increasing to  $+0.10$  from  $+0.07$  in December. Thirty-four of the 85 individual indicators made positive contributions to the CFNAI in January, while 51 made negative contributions. Thirty-three indicators improved from December to January, while 52 indicators deteriorated. Of the indicators that improved, 12 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

	Jan '13	Dec '12	Nov '12	Oct '12	Sep '12	Aug '12	Jan '12
<b>CFNAI</b>							
Current	-0.32	+0.25	+0.96	-0.54	-0.07	-1.07	+0.42
Previous	N/A	+0.02	+0.27	-0.61	-0.06	-1.11	+0.41
<b>CFNAI-MA3</b>							
Current	+0.30	+0.23	+0.12	-0.56	-0.36	-0.48	+0.28
Previous	N/A	-0.11	-0.13	-0.59	-0.37	-0.52	+0.27
<b>CFNAI Diffusion</b>							
Current	+0.10	+0.07	-0.02	-0.38	-0.24	-0.27	+0.29
Previous	N/A	-0.05	-0.12	-0.36	-0.19	-0.25	+0.25

Current and Previous values reflect index values as of the February 25, 2013, release and January 22, 2013, release, respectively. N/A indicates not applicable.

Production-related indicators contributed  $-0.17$  to the CFNAI in January, down from  $+0.35$  in December. Manufacturing production decreased 0.4 percent in January after rising 1.1 percent in December, and manufacturing capacity utilization decreased to 77.6 percent in January from 78.0 percent in the previous month.

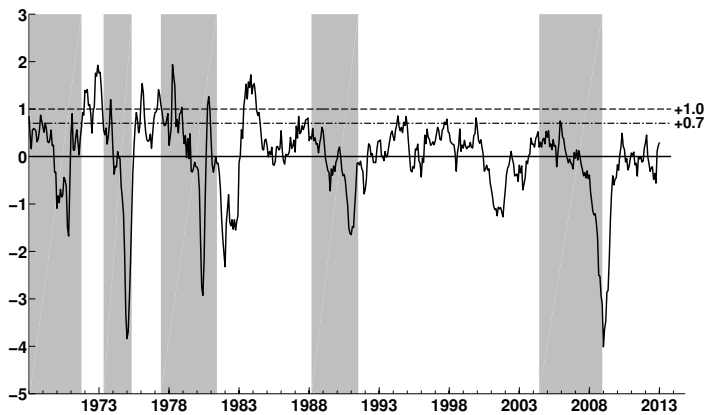
Employment-related indicators contributed  $+0.02$  to the CFNAI in January, down from  $+0.10$  in December. The unemployment rate ticked up to 7.9 percent in January from 7.8 percent in December, and nonfarm payrolls rose by 157,000 in January after increasing by 196,000 in December.

The contribution from the consumption and housing category to the CFNAI decreased to  $-0.20$  in January from  $-0.13$  in December. Housing permits edged up to 925,000 annualized units in January from 909,000 in December. However, housing starts declined, dropping to 890,000 annualized units in January from 973,000 in

the previous month. In contrast to the other three categories, the contribution from the sales, orders, and inventories category to the CFNAI increased in January, moving up to  $+0.03$  from  $-0.07$  in December.

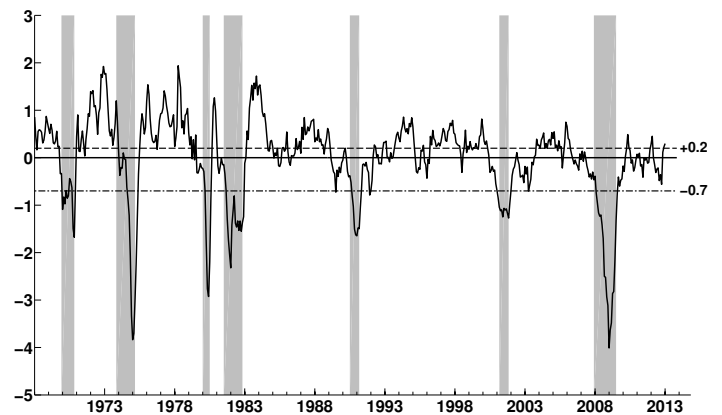
The CFNAI was constructed using data available as of February 21, 2013. At that time, January data for 51 of the 85 indicators had been published. For all missing data, estimates were used in constructing the index. The December monthly index was revised to  $+0.25$  from an initial estimate of  $+0.02$ , and the November monthly index was revised to  $+0.96$  from last month's estimate of  $+0.27$ . 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 substantial revisions to the December and November monthly indexes were due almost equally to both factors.

### CFNAI-MA3 and Inflation Cycles



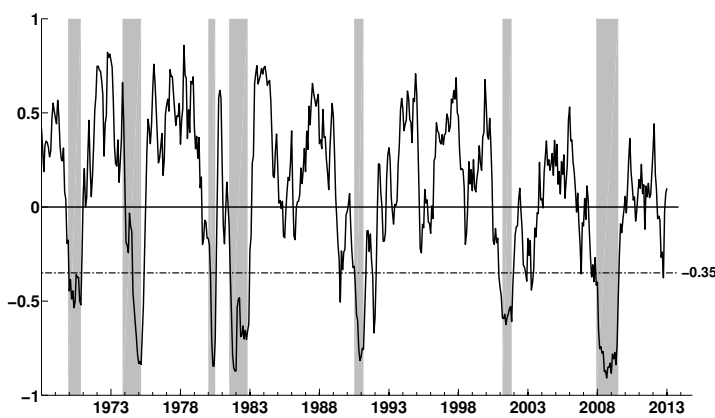
Notes: Shading represents periods of substantial inflation increases. A CFNAI-MA3 value above  $+0.70$  more than two years into an economic expansion indicates an increasing likelihood that a period of sustained increasing inflation has begun. A CFNAI-MA3 value above  $+1.00$  more than two years into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

