

## News Release

Embargoed for release:

8:30 am Eastern Time

7:30 am Central Time

October 23, 2014

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:

November 24, 2014

8:30 am Eastern Time

7:30 am Central Time

FEDERAL RESERVE BANK  
OF CHICAGO

# Chicago Fed National Activity Index

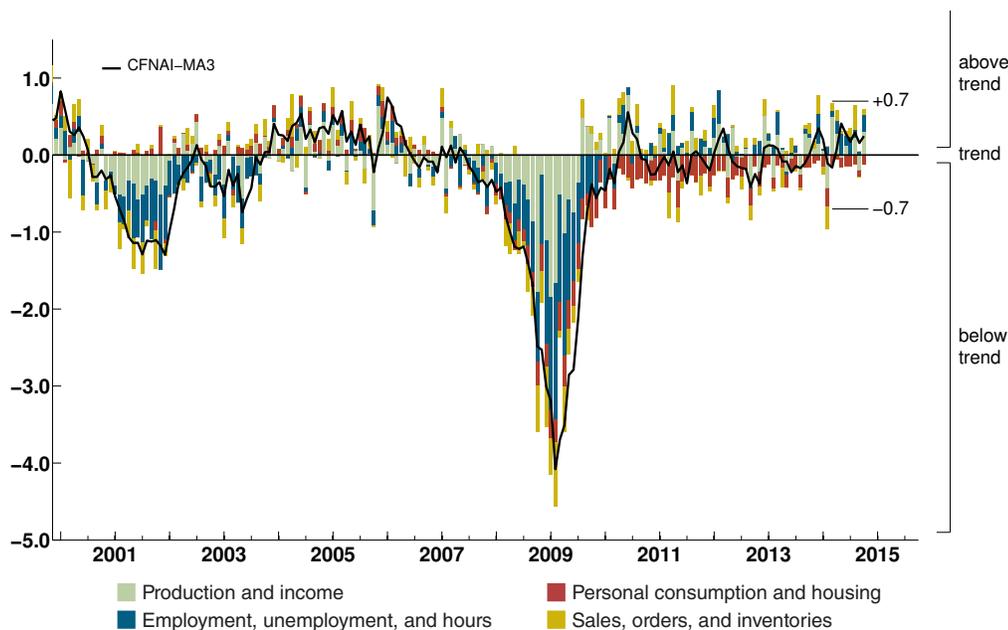
## Index shows economic growth picked up in September

Led by improvements in production-related indicators, the Chicago Fed National Activity Index (CFNAI) rose to  $+0.47$  in September from  $-0.25$  in August. Three of the four broad categories of indicators that make up the index made positive contributions to the index in September, and three of the four categories increased from August.

The index's three-month moving average, CFNAI-MA3, increased to  $+0.25$  in September from  $+0.16$  in August, marking its seventh consecutive reading above zero. September's CFNAI-MA3 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, which is also a three-month moving average, increased to  $+0.24$  in September from  $+0.18$  in August. Fifty-eight of the 85 individual indicators made positive contributions to the CFNAI in September, while 27 made negative contributions. Fifty-six indicators improved from August to September, while 29 indicators deteriorated. Of the indicators that improved, 12 made negative contributions.

Chicago Fed National Activity Index, by Categories, and CFNAI-MA3



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

	Sep '14	Aug '14	Jul '14	Jun '14	May '14	Apr '14	Sep '13
<b>CFNAI</b>							
Current	+0.47	-0.25	+0.52	+0.20	+0.16	+0.15	+0.26
Previous	N/A	-0.21	+0.26	+0.17	+0.18	+0.15	+0.26
<b>CFNAI-MA3</b>							
Current	+0.25	+0.16	+0.29	+0.17	+0.28	+0.41	+0.01
Previous	N/A	+0.07	+0.20	+0.16	+0.28	+0.41	+0.01
<b>CFNAI Diffusion</b>							
Current	+0.24	+0.18	+0.30	+0.27	+0.33	+0.37	+0.08
Previous	N/A	+0.14	+0.23	+0.24	+0.31	+0.35	+0.08

Current and Previous values reflect index values as of the October 23, 2014, release and September 22, 2014, release, respectively. N/A indicates not applicable.

Production-related indicators made a contribution of +0.30 to the CFNAI in September, up from -0.20 in August. Industrial production rose 1.0 percent in September after decreasing 0.2 percent in August, and manufacturing capacity utilization increased to 77.3 percent in September from 77.1 percent in the previous month.

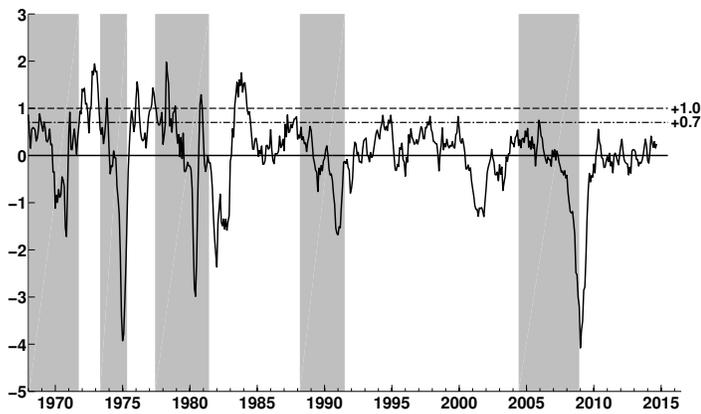
Employment-related indicators contributed +0.22 to the CFNAI in September, up from +0.04 in August. The unemployment rate declined to 5.9 percent in September from 6.1 percent in August; and nonfarm payrolls increased by 248,000 in September, up from a gain of 180,000 in August. The contribution of the sales, orders, and inventories category to the CFNAI rose to +0.08 in September from -0.01 in August.

The contribution of the consumption and housing category to the CFNAI decreased to -0.13 in September from -0.09 in August. Consumption indicators, on balance, deteriorated, pushing the

category's contribution lower. However, housing starts rose to 1,017,000 annualized units in September from 957,000 in August, and housing permits edged up to 1,018,000 annualized units in September from 1,003,000 in the previous month.

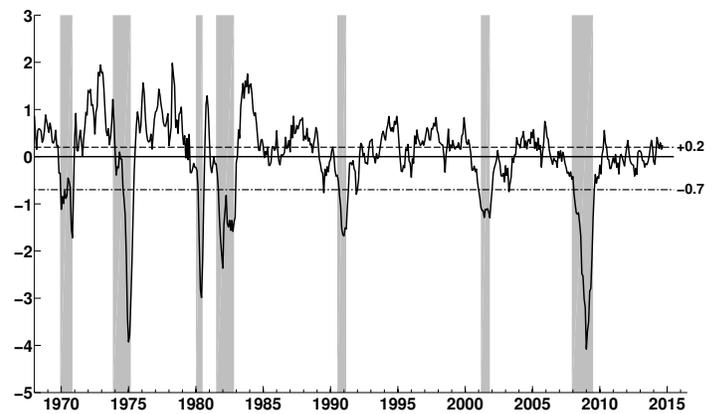
The CFNAI was constructed using data available as of October 21, 2014. At that time, September data for 50 of the 85 indicators had been published. For all missing data, estimates were used in constructing the index. The August monthly index was revised to -0.25 from an initial estimate of -0.21, and the July monthly index was revised to +0.52 from last month's estimate of +0.26. 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 revisions to both the August and July monthly indexes were due primarily to the latter.

### CFNAI-MA3 and Inflation Cycles



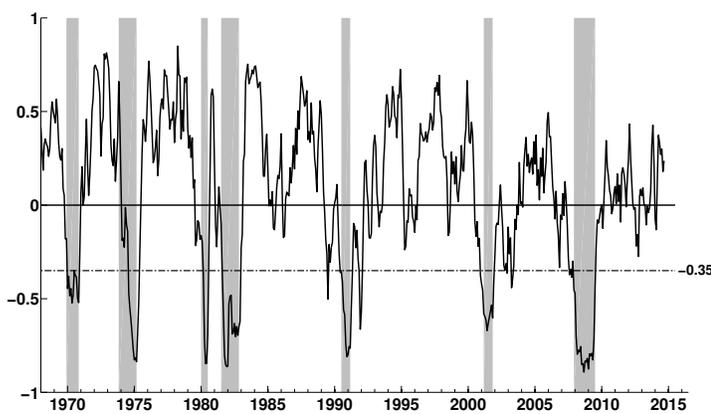
Notes: Shading represents periods of substantial inflation increases. A CFNAI-MA3 value above +0.70 more than two years into an economic expansion indicates an increasing likelihood that a period of sustained increasing inflation has begun. A CFNAI-MA3 value above +1.00 more than two years into an economic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

