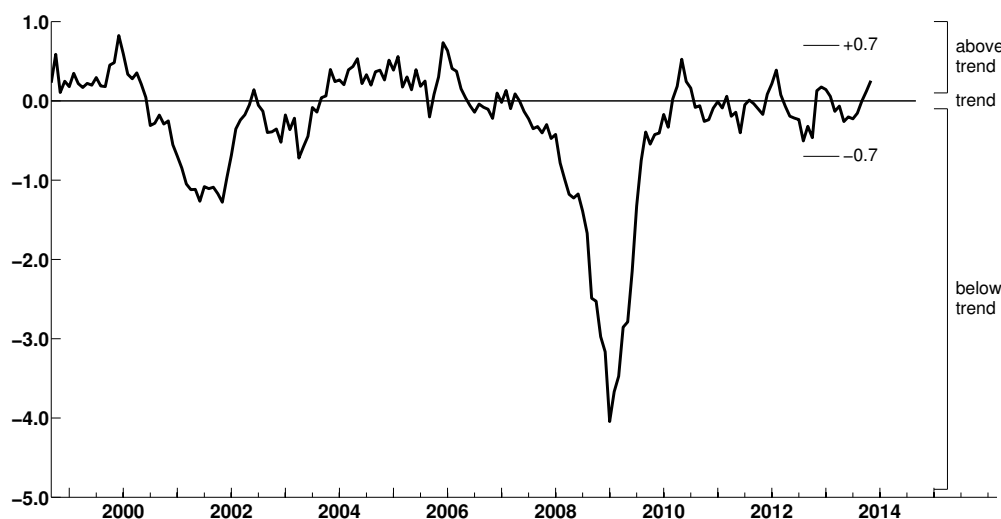*Chicago Fed* **National Activity Index**

Index shows economic growth picked up in November

Led by gains in employment- and production-related indicators, the Chicago Fed National Activity Index (CFNAI) increased to +0.60 in November from −0.07 in October. All four broad categories of indicators that make up the index increased from October, and three of the four categories made positive contributions to the index in November.

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:
January 23, 2014
8:30 am Eastern Time
7:30 am Central Time

FEDERAL RESERVE BANK OF CHICAGO

The index's three-month moving average, CFNAI-MA3, increased to +0.25 in November from +0.12 in October, marking its second consecutive reading above zero and highest reading since February 2012. November's CFNAI-MA3 suggests that growth in national economic activity was 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 increased to +0.27 in November from +0.24 in October. Fifty-six of the 85 individual indicators made positive contributions to the CFNAI in November, while 29 made negative contributions. Fifty-four indicators improved from October to November, while 30 indicators deteriorated and one was unchanged. Of the indicators that improved, 11 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

	Nov '13	Oct '13	Sep '13	Aug '13	Jul '13	Jun '13	Nov '12
CFNAI							
Current	+0.60	-0.07	+0.24	+0.20	-0.44	-0.22	+0.83
Previous	N/A	-0.18	+0.18	+0.17	-0.43	-0.23	+0.82
CFNAI-MA3							
Current	+0.25	+0.12	0.00	-0.16	-0.23	-0.20	+0.13
Previous	N/A	+0.06	-0.02	-0.16	-0.22	-0.21	+0.13
CFNAI Diffusion							
Current	+0.27	+0.24	+0.06	-0.06	-0.13	-0.08	-0.02
Previous	N/A	+0.21	+0.07	-0.05	-0.13	-0.09	-0.02

Current and Previous values reflect index values as of the December 23, 2013, release and November 27, 2013, release, respectively. N/A indicates not applicable.

Employment-related indicators contributed +0.28 to the CFNAI in November, up from –0.05 in October. The unemployment rate decreased to 7.0 percent in November from 7.3 percent in October, and total payroll employment increased by 203,000 in November after rising by 200,000 in the previous month.
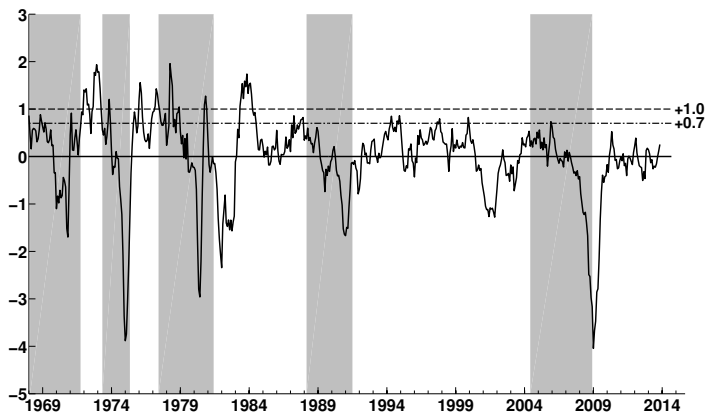
Production-related indicators contributed +0.39 to the CFNAI in November, up from +0.07 in October. Industrial production rose 1.1 percent in November after increasing 0.1 percent in October, and manufacturing capacity utilization increased to 76.8 percent in November from 76.4 percent in the previous month. The contribution from the sales, orders, and inventories category to the CFNAI increased to +0.06 in November from +0.04 in October.

The contribution from the consumption and housing category to the CFNAI ticked up to –0.12 in November from –0.13 in October.

Housing starts increased to 1,091,000 annualized units in November from 889,000 in October. However, housing permits edged down to 1,007,000 annualized units in November from 1,039,000 in the previous month.
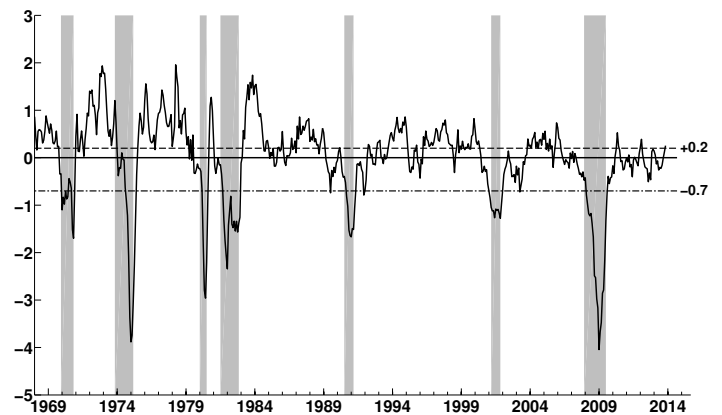
The CFNAI was constructed using data available as of December 19, 2013. At that time, November data for 51 of the 85 indicators had been published. For all missing data, estimates were used in constructing the index. The October monthly index was revised to –0.07 from an initial estimate of –0.18. Revisions 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 October monthly index was due primarily to the former.

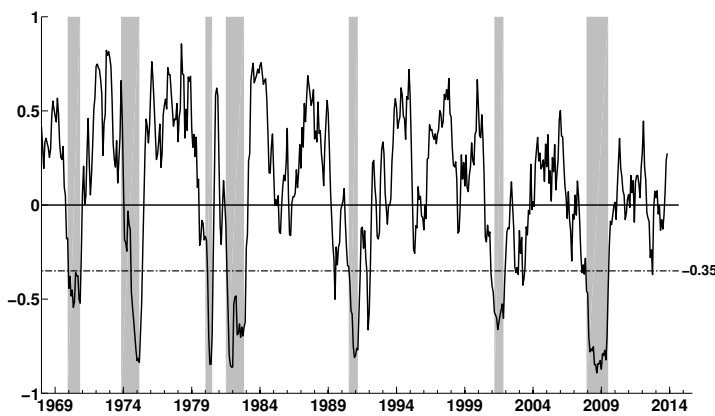### CFNAI-MA3 and Inflation Cycles

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

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