



The Iowa Leading Indicators Index (ILII) fell to 109.2 (100=1999) in January 2015 from 109.4 in December. The Iowa non-farm employment coincident index recorded a 0.13 percent rise in January, which extends the streak of employment gains to 52 consecutive months. In March, the Bureau of Labor Statistics released revised employment numbers, lowering 2014 monthly employment by an average of 0.08 percent.

During the six-month span through January, the ILII decreased 0.4 percent (an annualized rate of -0.7 percent). The six-month diffusion index was 62.5 with three of the eight components (building permits, new orders index and yield spread) experiencing an increase of less than 0.05 percent over the last half a year.

In January, two of eight Iowa Leading Indicators Index components contributed positively. The positive contributors were diesel fuel consumption and average weekly manufacturing hours. The national yield spread, the agricultural futures profits index, the Iowa stock market index, the new orders index, average weekly unemployment claims (inverted), and residential building permits were the six components that contributed to the index negatively.

Figure 1. Iowa Leading Indicators Index and Iowa Non-Farm Employment Coincident Index: January 1999-January 2015

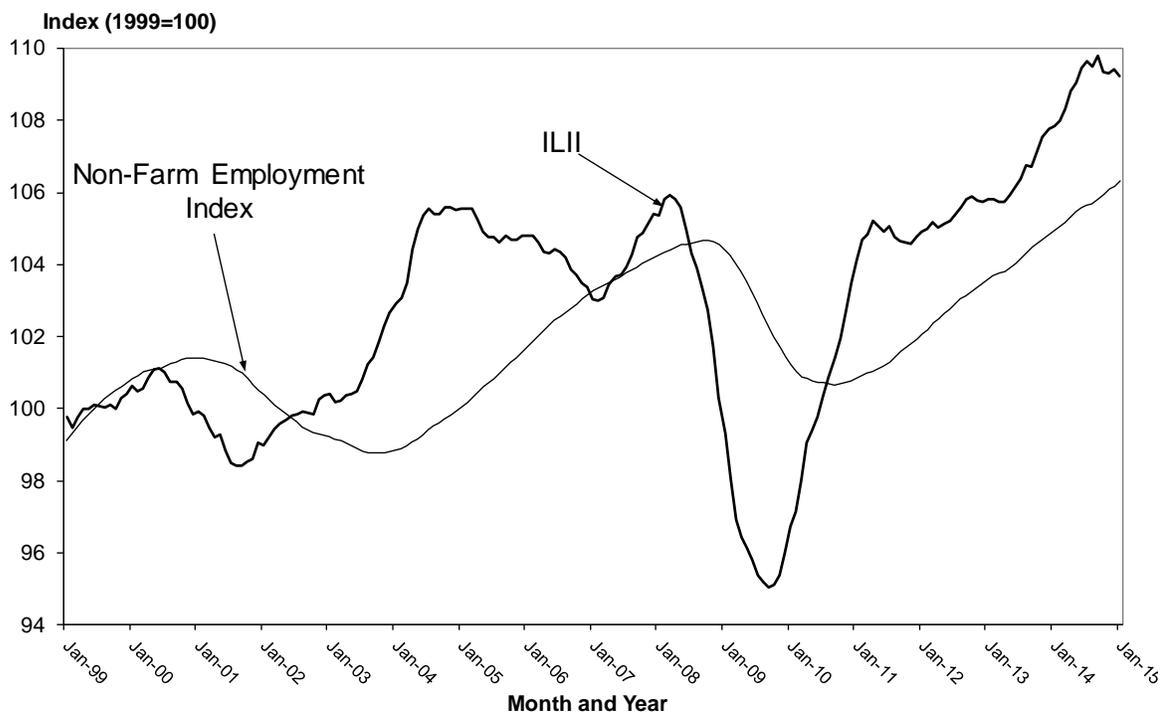


Table 1. Iowa Leading Indicators Index: Six Month Overview

Monthly Values	2014					2015
	Aug	Sept	Oct	Nov	Dec	Jan
ILII	109.5	109.8	109.3	109.3	109.4	109.2
Percentage Change ^a	-0.1%	0.3%	-0.4%	0.0%	0.1%	-0.1%
Diffusion Index ^b	37.5	68.8	25.0	50.0	75.0	25.0
Six-Month Values	Feb to Aug	Mar to Sept	April to Oct	May to Nov	June to Dec	July to Jan
ILII						
Percentage Change	1.4%	1.3%	0.5%	0.2%	-0.1%	-0.4%
Annualized Percentage Change	2.8%	2.7%	1.0%	0.5%	-0.1%	-0.7%
Diffusion Index	75.0	75.0	62.5	62.5	62.5	62.5

Source: Tax Research and Program Analysis Section, Iowa Department of Revenue, produced March 17, 2015.

a. Percentage changes in the ILII do not always equal changes in the level of the ILII due to rounding.

b. A diffusion index measures the proportion of components that are rising based on the actual changes (not the standardized contributions to the ILII). Components experiencing increases greater than 0.05 percent are assigned a value of 1.0, components that experience changes less than an absolute value of 0.05 percent are assigned a value of 0.5, and components experiencing decreases greater than 0.05 percent are assigned a value of 0.0.

Table 2. Iowa Leading Indicators Index Components: Six Month Overview

Component Series Monthly Values ^a	2014					2015
	Aug	Sept	Oct	Nov	Dec	Jan
AFPI ^b						
Corn Profits (cents per bushel)	62.2	55.3	51.0	50.1	50.9	51.0
Soybean Profits (cents per bushel)	304.1	287.4	275.2	273.4	268.3	263.0
Hog Profits (cents per pound)	41.4	42.6	43.3	43.6	43.4	42.0
Cattle Profits (cents per pound)	8.0	10.5	13.0	15.1	16.0	15.0
Iowa Stock Market Index (10=1984-86)	103.53	105.35	102.91	108.32	109.71	106.15
Yield Spread (10-year less 3-month)	2.39	2.51	2.28	2.31	2.18	1.85
Residential Building Permits	901	952	901	880	894	889
Average Weekly Unemployment Claims ^d	3,104	3,106	3,097	3,130	3,075	3,093
Average Weekly Manufacturing Hours	42.02	42.03	41.94	41.93	41.98	42.04
New Orders Index (percent)	66.4	64.9	63.9	62.9	61.7	61.1
Diesel Fuel Consumption (mil gallons)	58.86	59.02	58.96	59.00	59.08	59.48

Source: Tax Research and Program Analysis Section, Iowa Department of Revenue, produced March 17, 2015.

a. For all component series except for the yield spread and the Iowa stock market index, the values represent 12-month backward moving averages.

b. The agricultural futures profits index is computed as the sum of the standardized symmetric percent changes in the four series, each weighted by the commodity's annual share of Iowa cash farm income (updated September 3, 2014).

c. Arrows indicate the direction of the series' contribution to the ILII for the latest month.

d. Changes in average weekly initial unemployment insurance claims are inverted when added to the ILII, thus a negative change in the series contributes positively to the index.

ILII Components

- **Diesel fuel consumption:** Number of taxable gallons of diesel fuel sold in Iowa. Changes are calculated based on a 12-month moving average. Diesel fuel consumption increased 9.0 percent between January 2014 and 2015, causing the 12-month moving average to rise to 59.48 million gallons from 59.08 in December, and contributing 0.13 to the ILII value.
- **Average weekly manufacturing hours:** Weekly average of hours worked in the manufacturing sector in Iowa. Changes are calculated based on a 12-month moving average. For January 2015, this component contributed 0.05 to the ILII value with its increase to 42.04 from a revised 41.98. January 2015 hours were 42.2, above the 41.4 hours in January 2014, and 1.4 hours above the historical average of 40.8 (1996-2013).
- **Residential building permits:** Number of total permits issued in Iowa for the construction of residential housing units. Changes are calculated based on a 12-month moving average. For January, this component contributed -0.02 to the ILII with the 12-month moving average decreasing from December to 889. January 2015 permits were 19.4 percent below January 2014, and 47.9 percent below the historical average for January (1998-2013).
- **Average weekly unemployment claims:** Weekly average of initial claims for unemployment insurance in Iowa. Changes are calculated based on a 12-month moving average and are inverted when added to the ILII. This component contributed -0.02 to the ILII value. The 12-month moving average of claims increased to 3,093 with unemployment claims for the month 5.4 percent above January 2014 claims, yet 5.6 percent below average historical claims for January (1987-2013).
- **New orders index:** Diffusion index measuring the share of purchasing managers in Iowa reporting increases in orders received for manufacturing output. Changes are calculated based on a 12-month moving average. The monthly value of the index increased to 53.3 in January from 51.6 in December, however, it was down from 60.8 a year ago. The 12-month moving average of the new orders index dropped to 61.1, contributing -0.04 to the ILII.
- **Iowa stock market index:** Capitalization-weighted index of 33 Iowa-based or Iowa-concentrated publicly-traded companies. During January 2015, only 9 of the 33 companies gained value, including 2 of the 11 financial-sector companies. The stock market index fell to 106.15, contributing -0.06 to the ILII value.
- **Agricultural futures profits index:** Composite measure of corn, soybean, hog, and cattle expected profits, measured as the futures price less estimated breakeven costs, weighted by the respective share of Iowa annual cash receipts. Changes are calculated based on a 12-month moving average. During January this component contributed -0.07 to the index with decreases in corn, soybeans, and lean hogs. Compared to last year, corn prices are down 8.5 percent and soybean prices fell 19.2 percent. Prices for hogs decreased 13.6 percent which is the first negative change in year-over-year prices since December 2013; however, cattle prices did increase 12.6 percent in January over last year.
- **Yield spread:** Difference between the yield on 10-year Treasury bonds and 3-month Treasury bills. During January, the yield spread shrunk to 1.85 percent as the long-term rate dropped 33 basis points while the short-term rate remained unchanged. For the month, the yield spread contributed -0.11 to the ILII.

Table 3. ILII Components and Standardization Factors for FY 2015

Iowa Leading Indicator Index Components	Standardization Factor
Agricultural Futures Profits Index	0.046
Iowa Stock Market Index	0.018
Yield Spread	0.332
Residential Building Permits	0.035
Average Weekly Unemployment Claims	0.034
Average Weekly Manufacturing Hours	0.285
New Orders Index	0.064
Diesel Fuel Consumption	0.186

Source: Tax Research and Program Analysis Section, Iowa Department of Revenue, produced September 3, 2014. The standardization factors are the inverse of the standard deviation of the month-to-month changes in each component over the January 1999 to June 2014 period. These factors equalize the volatility of the contribution from each component and are normalized to one. The month-to-month changes are based on 12-month backward moving averages for all components except the yield spread and the Iowa stock market index. The yield spread and new orders index changes are simple arithmetic changes; month-to-month changes for the rest of the components are computed as symmetric percentage changes. The factors are updated annually during August.

Comments

The Iowa Leading Indicators Index (ILII) is designed to forecast the future direction of economic activity in the state of Iowa. The techniques used to build the ILII follow those used by The Conference Board to construct the national Leading Economics Index (LEI) prior to the 2001 revisions. A one-month movement in such an index does not produce a clear signal, rather it is necessary to consider the direction of the index over several consecutive months. A contraction signal in the ILII is considered reliable when two conditions are met: 1. The index declines by at least two percent over a six month period (using an annualized rate); and, 2. A majority of the individual components decline over those six months (the six-month diffusion index less than 50.0).

The Iowa non-farm employment coincident index measures the change in non-seasonally adjusted, total non-farm employment in the state of Iowa. Changes are based on a 12-month moving average of employment and are computed as symmetric percentage changes. The index is a representation of overall economic activity in Iowa.

The employment index and the ILII are constructed to have a value of 100 in the year 1999.

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