



The Iowa Leading Indicators Index (ILII) fell to 106.3 (100=1999) in October 2015 from 106.7 in September. The Iowa non-farm employment coincident index recorded a 0.12 percent rise in October, which extends the streak of employment gains to 61 consecutive months.

During the six-month span through October, the ILII decreased 2.2 percent (an annualized rate of -4.4 percent). The six-month diffusion index increased to 25.0 with six of the eight components experiencing a decrease of greater than 0.05 percent over the last half a year. Average manufacturing hours increased and joined the national yield spread as the only components to show any positive growth in the past 6 months.

In October, only two of eight Iowa Leading Indicators Index components contributed positively. The positive contributors were average weekly manufacturing hours and the Iowa stock market index. The agricultural futures profits index, diesel fuel consumption, residential building permits, the national yield spread, the new orders index, and average weekly unemployment claims (inverted) 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-October 2015

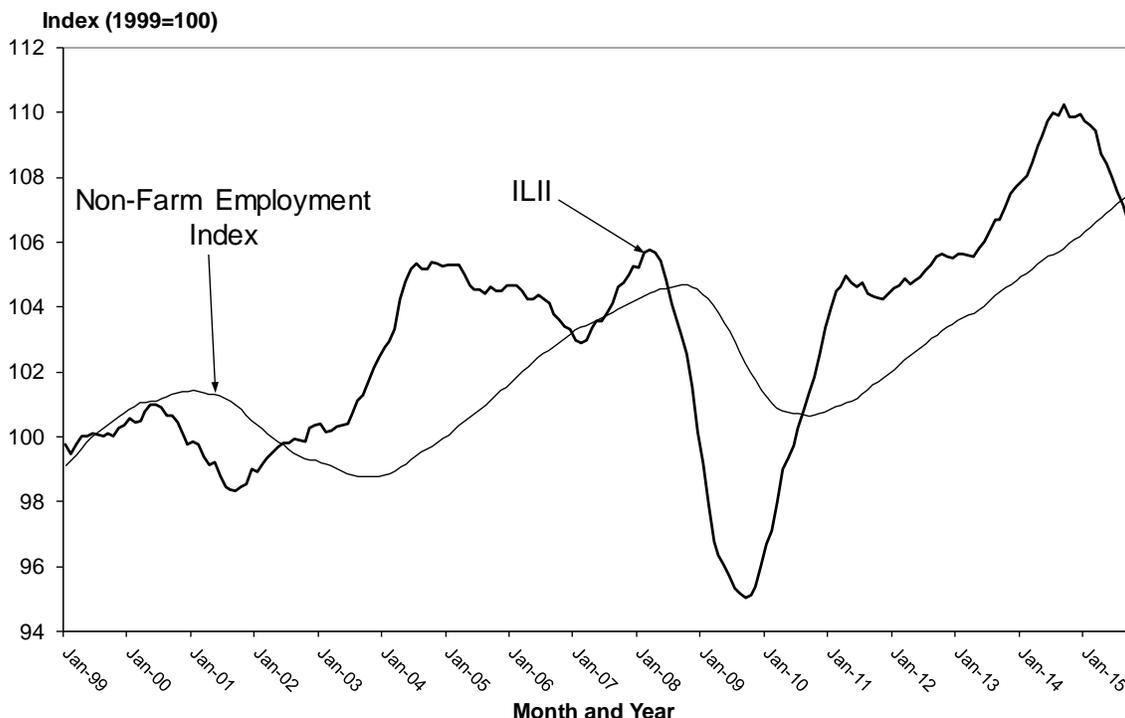


Table 1. Iowa Leading Indicators Index: Six Month Overview

Monthly Values	2015					
	May	June	July	Aug	Sept	Oct
ILII	108.4	108.0	107.5	107.1	106.7	106.3
Percentage Change ^a	-0.3%	-0.4%	-0.4%	-0.4%	-0.4%	-0.4%
Diffusion Index ^b	25.0	37.5	25.0	25.0	37.5	25.0
Six-Month Values	Nov to May	Dec to June	Jan to July	Feb to Aug	Mar to Sept	Apr to Oct
ILII						
Percentage Change	-1.3%	-1.8%	-2.0%	-2.3%	-2.5%	-2.2%
Annualized Percentage Change	-2.6%	-3.5%	-4.0%	-4.5%	-4.9%	-4.4%
Diffusion Index	37.5	31.3	25.0	31.3	12.5	25.0

Source: Tax Research and Program Analysis Section, Iowa Department of Revenue, produced December 1, 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		2015					
		May	June	July	Aug	Sept	Oct
AFPI ^b	↓ ^c						
Corn Profits (cents per bushel)		19.8	15.2	18.7	20.2	24.3	27.8
Soybean Profits (cents per bushel)		168.3	143.4	133.2	120.3	110.9	103.3
Hog Profits (cents per pound)		28.0	25.1	21.7	20.0	18.1	16.8
Cattle Profits (cents per pound)		8.3	6.0	2.5	-0.4	-3.8	-8.5
Iowa Stock Market Index (10=1984-86)	↑	95.56	95.80	95.89	92.30	85.45	87.66
Yield Spread (10-year less 3-month)	↓	2.18	2.34	2.29	2.10	2.15	2.05
Residential Building Permits	↓	876	881	868	862	842	832
Average Weekly Unemployment Claims ^d	↓	3,029	3,043	3,048	3,047	3,044	3,047
Average Weekly Manufacturing Hours	↑	42.02	41.98	41.99	42.02	41.96	42.07
New Orders Index (percent)	↓	55.6	53.6	51.9	51.6	51.6	51.2
Diesel Fuel Consumption (mil gallons)	↓	59.31	59.02	58.98	58.81	58.93	58.39

Source: Tax Research and Program Analysis Section, Iowa Department of Revenue, produced December 1, 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 August 25, 2015).

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

- **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 October 2015, this component contributed 0.07 to the ILII value with its increase to 42.07 from 41.96. October 2015 hours were 42.7, above the 41.4 hours in October 2014, and 1.1 hour above the historical monthly average of 41.6 (1996-2014).
- **Iowa stock market index:** Capitalization-weighted index of 35 Iowa-based or Iowa-concentrated publicly-traded companies. During October 2015, 24 of the 35 companies gained value, including 10 of the 12 financial-sector companies. With two-thirds of the stocks recording gains the index rose to 87.66 in October from 85.45 in September and contributed 0.05 to the ILII value.
- **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 -0.00 to the ILII value. The 12-month moving average of claims increased to 3,047 with unemployment claims for the month 1.5 percent above October 2014 claims, yet 17.4 percent below average historical claims for October (1987-2014).
- **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 decreased to 40.2 in October from 48.2 in September, down from 46.0 one year ago. The 12-month moving average of the new orders index decreased to 51.2, contributing -0.03 to the ILII.
- **Yield spread:** Difference between the yield on 10-year Treasury bonds and 3-month Treasury bills. During October, the yield spread retracted to 2.05 percent as the long-term rate decreased to 2.07 while the short-term rate remained unchanged. For the month, the yield spread contributed -0.03 to the ILII.
- **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 October, this component contributed -0.04 to the ILII with the 12-month moving average decreasing from 842 in September to 832. October 2015 permits were 9.9 percent below October 2014, and 16.5 percent below the historical average for October (1998-2014).
- **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 decreased 10.9 percent between October 2014 and 2015, causing the 12-month moving average to fall to 58.39 million gallons from 58.93 in September, and contributing -0.17 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 in the prior calendar year. Changes are calculated based on a 12-month moving average. During October this component contributed -0.21 to the index with expected profit decreases for three of the four commodities. Compared to last year, new crop corn prices are up 9.6 percent, while soybean prices are 7.6 percent lower. October prices for hogs are down 29.0 percent and cattle prices are 19.5 percent below October 2014.

Table 3. ILII Components and Standardization Factors for FY 2016

Iowa Leading Indicator Index Components	Standardization Factor
Agricultural Futures Profits Index	0.037
Iowa Stock Market Index	0.019
Yield Spread	0.335
Residential Building Permits	0.034
Average Weekly Unemployment Claims	0.035
Average Weekly Manufacturing Hours	0.290
New Orders Index	0.064
Diesel Fuel Consumption	0.187

Source: Tax Research and Program Analysis Section, Iowa Department of Revenue, produced August 27, 2015
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 2015 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.

Contact: Questions can be addressed to Victoria Daniels of the Iowa Department of Revenue at (515) 281-8450 or Victoria.Daniels@iowa.gov.