

IOWA Department of REVENUE

Iowa Leading Indicators Index June 2010 Report

Tax Research and Program Analysis Section
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The Iowa Leading Indicators Index (ILII) rose to 100.6 (100=1999) in June 2010 from 100.0 in May. The Iowa non-farm employment coincident index was flat for the month, ending the streak of nineteen consecutive monthly decreases.

The ILII's value increased 0.7 percent in June, just slightly above the 0.6 percent increase in May. June's increase was the ninth consecutive positive change in the index. During the six-month span through June, the ILII rose 5.1 percent (an annualized rate of 10.2 percent). The six-month diffusion index (value of 87.5) reflects an increase of 0.05 percent or greater over the last half year in seven of the eight components, with the yield spread experiencing a drop exceeding 0.05 percent over that time.

In June, six of eight Iowa Leading Indicators Index components contributed positively. The positive contributors were the new orders index, unemployment insurance claims (inverted), average weekly manufacturing hours, the Iowa stock market index, the agricultural futures price index, and diesel fuel consumption. The negative contributors were the national yield spread and new residential building permits, although the latter contribution (-0.0025) rounds to zero.

Figure 1. Iowa Leading Indicators Index and Iowa Non-Farm Employment Coincident Index: January 1999-June 2010

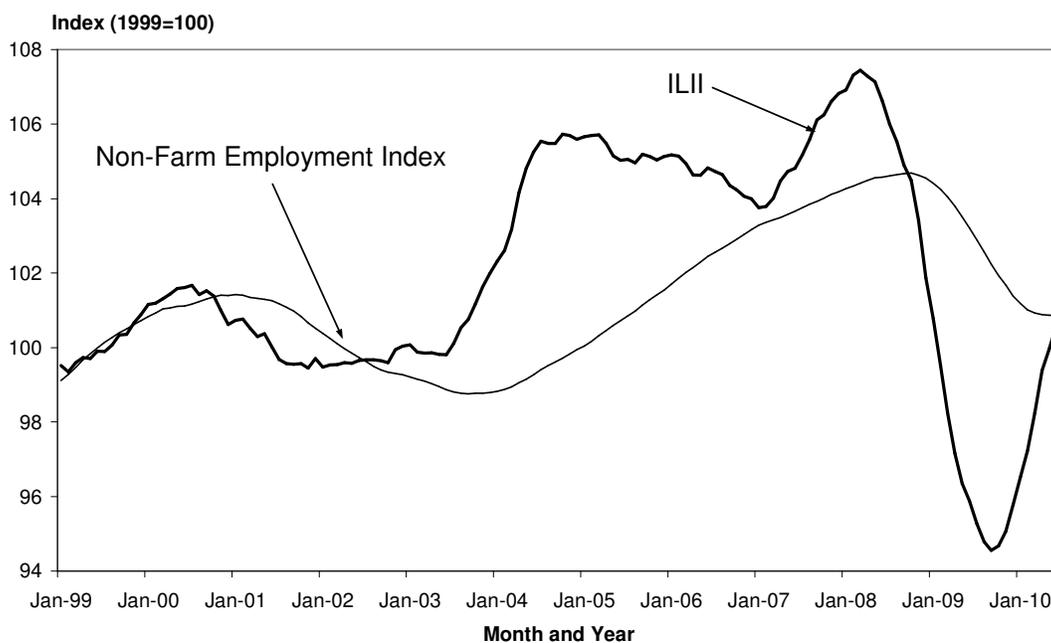


Table 1. Iowa Leading Indicators Index: Six Month Overview

Monthly Values	2010					
	January	February	March	April	May	June
ILII	96.5	97.2	98.2	99.4	100.0	100.6
Percentage Change ^a	0.8%	0.7%	1.0%	1.2%	0.6%	0.7%
Diffusion Index ^b	81.3	75.0	93.8	100.0	75.0	75.0
Six-Month Values	July to January	Aug to February	Sept to March	Oct to April	Nov to May	Dec to June
ILII						
Percentage Change	1.3%	2.6%	3.9%	5.0%	5.2%	5.1%
Annualized Percentage Change	2.6%	5.2%	7.8%	10.0%	10.4%	10.2%
Diffusion Index	62.5	75.0	87.5	100.0	87.5	87.5

Source: Tax Research and Program Analysis Section, Iowa Department of Revenue, produced July 27, 2010.

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		2010					
		January	February	March	April	May	June
AFPI ^b	↑ ^c						
Corn Profits (cents per bushel)		42.2	37.5	31.6	23.9	14.4	14.7
Soybean Profits (cents per bushel)		196.6	189.3	185.3	173.8	153.4	149.9
Hog Profits (cents per pound)		7.1	8.3	9.4	11.1	13.1	15.2
Cattle Profits (cents per pound)		-6.5	-5.2	-3.5	-1.7	-0.3	0.8
Iowa Stock Market Index (10=1984-86)	↑	51.42	53.41	56.03	58.36	59.62	60.57
Yield Spread (10-year less 3-month)	↓	3.67	3.58	3.58	3.69	3.26	3.08
Building Permits	↓	591	605	641	668	673	672
Average Weekly Unemployment Claims ^d	↑	7,564	7,298	6,980	6,675	6,435	6,124
Average Weekly Manufacturing Hours	↑	39.1	39.4	39.6	40.0	40.2	40.4
New Orders Index (percent)	↑	50.9	53.0	55.7	59.1	61.6	64.2
Diesel Fuel Consumption (mil gallons)	↑	51.30	51.10	51.32	51.63	51.97	52.18

Source: Tax Research and Program Analysis Section, Iowa Department of Revenue, produced July 27, 2010.

a. For all component series except for the yield spread (the only national series) the values represent 12-month backward moving averages.

b. The agricultural futures price 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 21, 2009).

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

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

ILII Components

- **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 12-month moving average of the new orders index rose to 64.2, contributing 0.16 to the ILII. The June 2010 value of 87.0 is the second highest reading for the index in all available data since January 1998.
- **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. The 12-month moving average of claims fell to 6,124 with unemployment claims in June 2010 46.5 percent below June 2009 claims. This component contributed 0.16 to the ILII value. However, initial claims for June 2010 were still 59.4 percent above average June claims (1987-2008).
- **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 June 2010, this component contributed 0.14 to the ILII value with the 12-month moving average rising to 40.4. June 2010 hours were 41.3, below the historical average for June of 41.8 hours (1996-2008), but well above the 39.0 reported in June 2009.
- **Iowa stock market index:** Capitalization-weighted index of 34 Iowa-based or Iowa-concentrated publicly-traded companies. Changes are calculated based on a 12-month moving average. During June 2010, 7 of the 34 companies gained value, including 3 of the 12 financial-sector companies. Despite the fact that the majority of stocks experienced losses in June, the 12-month moving average measure of the stock market index was still a positive contributor to the ILII because the current stock market values exceeded the weak values seen in 2009. The stock market index, rising to 60.57, contributed 0.09 to the ILII value.
- **Agricultural futures price 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 annual Iowa cash farm income. Changes are calculated based on a 12-month moving average. During June, this component contributed 0.08 to the ILII value as the 12-month moving average of expected profits for hogs, cattle, and corn improved while expected profits for soybeans continued to fall, although at a much slower pace. Note that the June numbers reflect a new crop year for corn and soybeans, with an average estimated drop of over one dollar per bushel in input costs for the 2010 crop.
- **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 rose 4.9 percent between June 2009 and 2010, causing the 12-month moving average to rise 0.4 percent to 52.18 million gallons, and contributing 0.07 to the ILII value.
- **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 June, this component contributed -0.00 to the ILII with the 12-month moving average slipping to 672. June 2010 permits were 0.8 percent lower than the number of permits issued in June 2009 and 39.7 percent below the historical average for June (1998-2008).
- **Yield spread:** Difference between the yield on 10-year Treasury bonds and 3-month Treasury notes. During June, the yield spread fell to 3.08 as the long-term rate dropped 22 basis points while the short-term rate dropped just 4 basis points. For the month, the yield spread contributed -0.05 to the ILII.

Table 3. ILII Components and Standardization Factors for FY 2010

Iowa Leading Indicator Index Components	Standardization Factor
Agricultural Futures Price Index	0.052
Iowa Stock Market Index	0.059
Yield Spread	0.289
Building Permits	0.034
Average Weekly Unemployment Claims	0.033
Average Weekly Manufacturing Hours	0.298
New Orders Index	0.064
Diesel Fuel Consumption	0.171

Source: Tax Research and Program Analysis Section, Iowa Department of Revenue, produced August 21, 2009. 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 2009 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, which is the only national series. 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 the summer.

Comments

The Iowa Leading Indicators Index (ILII) is designed to forecast the likely 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). 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. The Conference Board considers a contraction signal in the LEI 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 Amy Rehder Harris of the Iowa Department of Revenue at (515) 281-0196 or amy.harris@iowa.gov.