

Iowa Leading Indicators Index July 2007

Iowa Department of Revenue
Tax Research and Program Analysis Section

The Iowa Leading Indicators Index (ILII) increased 0.1 percent in July 2007. The Iowa non-farm employment coincident index increased by 0.1 percent in July, the 44th consecutive month.

The ILII's value in July rose to 106.9 (100=1999). This was the sixth consecutive increase in the index although increases in June and July were much smaller than those seen in March, April and May. During the six-month span through July, the ILII increased 1.5 percent (a 3.1 percent annual rate). The six-month diffusion index (value of 87.5) reflects seven of eight components experiencing a 0.5 percent or greater increase and one component (building permits) experiencing a 0.5 percent or greater decrease over the last half year.

In July, five of the eight Iowa Leading Indicators components increased. The positive contributors were the Iowa stock market index, unemployment insurance claims (inverted), the agricultural futures price index, the new orders index, and residential building permits. The negative contributors were the yield spread, average weekly manufacturing hours, and diesel fuel consumption. The annual review of the ILII occurred in July including updates to the AFPI commodity weights and the ILII standardization factors (see Table 3). In addition the Iowa stock market index was expanded from 29 to 37 Iowa-based or Iowa-concentrated companies.

Figure 1. Iowa Leading Indicators Index and Iowa Non-Farm Employment Coincident Index: Jan. 1999-July 2007

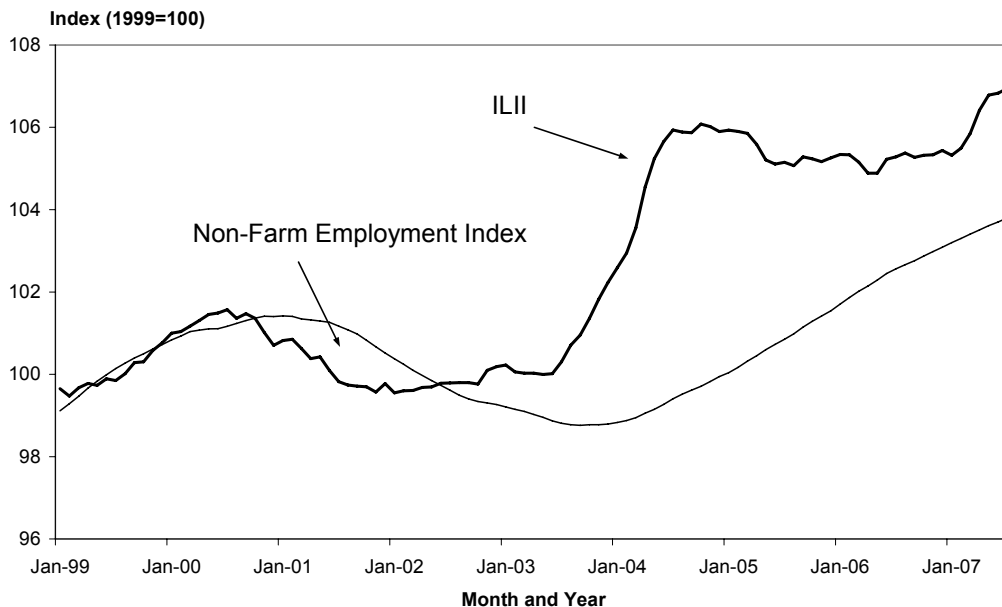


Table 1. Iowa Leading Indicators Index: Six Month Overview

Monthly Values	2007					
	February	March	April	May	June	July
ILII	105.5	105.8	106.4	106.8	106.8	106.9
Percentage Change ^a	0.2%	0.3%	0.5%	0.3%	0.0%	0.1%
Diffusion Index ^b	50.0	81.3	93.8	81.3	50.0	56.3
Six-Month Values	Aug to February	Sept to March	Oct to April	Nov to May	Dec to June	Jan to July
ILII						
Percentage Change	0.1%	0.5%	1.0%	1.4%	1.3%	1.5%
Diffusion Index	50.0	50.0	56.3	62.5	62.5	87.5

Source: Tax Research and Program Analysis Section, Iowa Department of Revenue, produced August 30, 2007.

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		2007					
		February	March	April	May	June	July
AFPI ^b	↑ ^c						
Corn (cents per bushel)		302.9	317.8	328.2	338.5	349.2	355.7
Hog Profits (cents per pound)		13.7	14.1	15.2	15.8	15.6	15.5
Soybeans (cents per bushel)		633.2	648.2	662.4	677.3	697.4	719.7
Cattle Profits (cents per pound)		-1.5	-1.1	-0.5	0.1	0.0	-0.1
Iowa Stock Market Index (10=1984-86)	↑	57.26	57.99	58.70	59.46	60.35	61.18
Yield Spread (10-year less 3-month)	↓	-0.44	-0.52	-0.32	-0.12	0.36	0.04
Building Permits	↑	1,009	1,009	1,015	1,003	976	976
Average Weekly Unemployment Claims ^d	↑	3,458	3,449	3,416	3,402	3,461	3,385
Average Weekly Manufacturing Hours	↓	42.0	42.1	42.4	42.5	42.3	42.3
New Orders Index (percent)	↑	54.8	55.1	55.8	55.9	55.7	56.5
Diesel Fuel Consumption (mil gallons)	↓	55.68	55.68	55.71	55.80	55.91	55.83

Source: Tax Research and Program Analysis Section, Iowa Department of Revenue, produced August 30, 2007.

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 annual share of the commodity to Iowa cash farm income.

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

- Iowa stock market index: Capitalization-weighted index of 37 Iowa-based or Iowa-concentrated publicly-traded companies. Changes are calculated based on a 12-month moving average. During July 2007 this component contributed 0.08 percent to the ILII value as 13 of the 37 companies and 4 of the 15 financial-sector companies gained value during the month. The recent volatility in the market will be captured more completely in the August 2007 report.
- 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. During July 2007 this component contributed 0.07 percent to the ILII value. In most years a sharp increase in claims occurs in the first week of July, however, this year that blip was registered during the last week of June which makes this month's claims appear uncharacteristically low.
- Agricultural futures price index: Composite measure of cattle, hogs, corn and soybeans futures prices weighted by the respective share of annual Iowa cash farm income. New information on 2006 income shares increased the weight on corn and decreased the weight on hogs. Changes are calculated based on a 12-month moving average of the futures price series, where cattle and hogs series also incorporate estimates of break-even costs. During July 2007 this component contributed 0.07 percent to the ILII value with continued strong markets for corn and soybean prices while profits for hogs and cattle dipped, an expected move as feed prices rise in line with grain prices.
- 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. During July 2007 this component contributed 0.05 percent to the ILII value as the monthly new orders index value for July rose slightly over the June value but to a level much higher than reported during July 2006.
- 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. During July 2007 this component, with an unchanged 12-month moving average due to rounding, contributed 0.00 percent to the ILII value. July monthly numbers came in just two units above those reported in July 2006, but well below housing-boom levels seen during July in 2003 through 2005.
- Diesel fuel consumption: Number of taxable gallons of diesel fuel sold in Iowa. Changes are calculated based on a 12-month moving average. During July 2007 this component contributed -0.02 percent to the ILII value as average consumption of diesel fuel decreased.
- 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. During July 2007 this component contributed -0.06 percent to the ILII value as the monthly value dropped below June values.
- Yield spread: Difference between the yield on 10-year Treasury bonds and 3-month Treasury notes. During July, the yield spread barely remained in positive territory as the short-term rate rose while the long-term rate fell. This component contributed -0.08 percent to the ILII value. The recent volatility in the credit markets will be reflected in the August 2007 report.

Table 3. ILII Components and Standardization Factors for FY 2008

Iowa Leading Indicator Components	Standardization Factor
Agricultural Futures Price Index	0.124
Iowa Stock Market Index	0.058
Yield Spread	0.247
Building Permits	0.029
Unemployment Claims	0.034
Average Weekly Hours	0.289
New Orders Index	0.055
Diesel Fuel Consumption	0.164

Source: Tax Research and Program Analysis Section, Iowa Department of Revenue, produced August 28, 2007. 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 2007 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 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 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 indicators index. A movement in the ILII for only one month 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 national leading indicators index reliable when two conditions are met: 1. the index declines by at least two percent over a six month period (using an annual rate); and, 2. a majority of the individual components also decline over those six months (six-month diffusion index less than 50.0).

The Iowa Non-Farm Employment Coincident Index measures the change in non-farm employment of all workers 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 designed to represent the current state of economic activity in Iowa.

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