

IOWA Department of REVENUE

Iowa Leading Indicators Index January 2008 Report

Tax Research and Program Analysis Section

The Iowa Leading Indicators Index (ILII) increased 0.1 percent in January 2008. The Iowa non-farm employment coincident index increased by 0.05 percent in January, matching the slower growth evident in employment since February 2007 after a downward adjustment by the Bureau of Labor Statistics (BLS).

The ILII's value in January rose to 107.4 (100=1999). The lower ILII level relative to recent reports reflects a significant revision by BLS to the average manufacturing hours series for June 2006 through December 2007. The small increase in January follows strong increases in December, November, September, and August. The index also rose a revised 0.1 percent in October. During the six-month span through January, the ILII increased 1.6 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 building permits experiencing a 0.5 percent or greater decrease over the last half year.

In January, five of the eight Iowa Leading Indicators components increased. The positive contributors were the agricultural futures price index, average weekly manufacturing hours, diesel fuel consumption, the Iowa stock market index, and residential building permits. The negative contributors were the yield spread, the new orders index, and unemployment insurance claims (inverted).

Figure 1. Iowa Leading Indicators Index and Iowa Non-Farm Employment Coincident Index: January 1999-January 2008

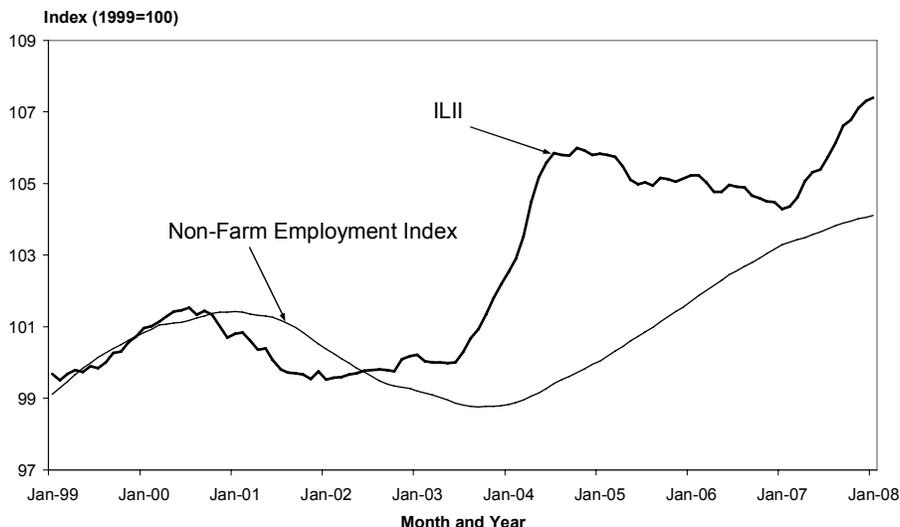


Table 1. Iowa Leading Indicators Index: Six Month Overview

Monthly Values	2007					2008
	August	September	October	November	December	January
ILII	106.1	106.6	106.8	107.1	107.3	107.4
Percentage Change ^a	0.4%	0.5%	0.1%	0.3%	0.2%	0.1%
Diffusion Index ^b	87.5	100.0	68.8	87.5	68.8	62.5
Six-Month Values	Feb to August	Mar to September	Apr to October	May to November	June to December	July to January
ILII						
Percentage Change	1.7%	1.9%	1.6%	1.7%	1.8%	1.6%
Diffusion Index	87.5	87.5	87.5	87.5	87.5	87.5

Source: Tax Research and Program Analysis Section, Iowa Department of Revenue, produced March 11, 2008.

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					2008
	August	September	October	November	December	January
AFPI ^b						
Corn (cents per bushel)						
Hog Profits (cents per pound)						
Soybeans (cents per bushel)						
Cattle Profits (cents per pound)						
Iowa Stock Market Index (10=1984-86)						
Yield Spread (10-year less 3-month)						
Building Permits						
Average Weekly Unemployment Claims ^d						
Average Weekly Manufacturing Hours						
New Orders Index (percent)						
Diesel Fuel Consumption (mil gallons)						

Source: Tax Research and Program Analysis Section, Iowa Department of Revenue, produced March 11, 2008.

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

- 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 January 2008 this component contributed 0.07 percent to the ILII value with increases in corn and soybean prices, but deterioration in hog and cattle profits.
- 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 January 2008 this component contributed 0.03 percent to the ILII value as January hours rose relative to the previous month and previous year. This series was revised downward by three to four percent each month from June 2006 through June 2007. These reductions lead to a one percent downward revision in the cumulative level of the ILII as of June 2007.
- Diesel fuel consumption: Number of taxable gallons of diesel fuel sold in Iowa. Changes are calculated based on a 12-month moving average. During January 2008 this component contributed 0.01 percent to the ILII value as diesel fuel consumption for the month increased 1.1 percent relative to the prior year.
- 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 January 2008 this component contributed 0.01 percent to the ILII value as just six of the 37 companies and three of the 15 financial-sector companies gained value during the month.
- 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 January 2008 this component contributed 0.01 percent to the ILII value. January permits were 4.6 percent above the number reported in January 2007, pushing up the 12-month moving average by 0.2 percent.
- 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 January 2008 this component contributed -0.00 percent to the ILII value. January 2008 unemployment claims were 0.4 percent above January 2007.
- 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 January 2008 this component contributed -0.02 percent to the ILII value as the monthly new orders index value for January dropped below 50, down sharply from December.
- Yield spread: Difference between the yield on 10-year Treasury bonds and 3-month Treasury notes. During January, the yield spread decreased as the short-term rate fell 25 basis points while the long-term rate dropped 36. This component contributed -0.03 percent to the ILII value.

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.