

IOWA Department of REVENUE

NOTICE: The Iowa Leading Indicators Index (ILII) underwent an annual update between the release of the June and July 2012 reports. As part of that update, the calculations of two components were altered, slightly increasing the level of the ILII for the most recent months of the index.

The first change was made to the Iowa stock market index, a capitalization-weighted index of Iowa-based or Iowa-concentrated publicly-traded companies. During the last year, one bank was purchased by an out-of-state private bank, and two other Iowa based companies became publicly traded companies. The bank stock was removed from the index and the other two companies were added. The stock market index is now comprised of 34 companies, up from 33 last year.

The second change was made to the agricultural futures profits index (AFPI) where newly released annual Iowa cash receipts data from the prior calendar year were incorporated. The weights on the commodities in the index, based on the distribution of cash receipts between the four commodities, were updated accordingly.

To read more about the changes to the ILII, please refer to *Iowa Leading Indicators Index: Sixth Annual Assessment and Update* available at: <http://www.iowa.gov/tax/taxlaw/econindicators.html>

A revised historical series for the ILII and its components are available at the above location. Please click on *Historical ILII Series*.

IOWA Department of REVENUE

Iowa Leading Indicators Index July 2012 Report

Tax Research and Program Analysis Section
Released September 5, 2012

The Iowa Leading Indicators Index (ILII) rose to 105.4 (100=1999) in July 2012 from 105.1 in June. The Iowa non-farm employment coincident index recorded a 0.07 percent rise in July, which extends the streak of employment gains to twenty-two consecutive months.

The ILII's value increased 0.2 percent in July, after 0.1 percent increases in May and June. During the six-month span through July, the ILII increased 0.6 percent (an annualized rate of 1.2 percent) and remained in positive territory for a sixth month. The six-month diffusion index was 62.5 with five of the eight components (average weekly manufacturing hours, residential building permits, the Iowa stock market index, average weekly unemployment claims, and diesel fuel consumption) experiencing an increase of more than 0.05 percent over the last half a year.

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

Figure 1. Iowa Leading Indicators Index and Iowa Non-Farm Employment Coincident Index: January 1999-July 2012

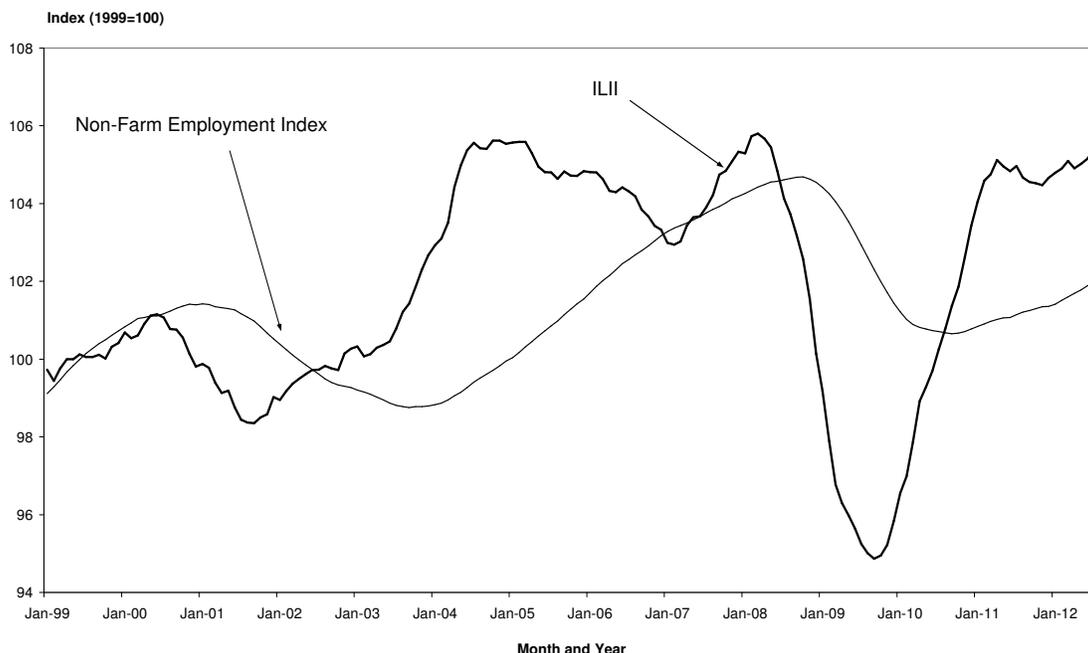


Table 1. Iowa Leading Indicators Index: Six Month Overview

Monthly Values	2012					
	February	March	April	May	June	July
ILII	104.9	105.1	104.9	105.0	105.1	105.4
Percentage Change ^a	0.1%	0.2%	-0.2%	0.1%	0.1%	0.2%
Diffusion Index ^b	50.0	68.8	37.5	62.5	62.5	75.0
Six-Month Values	Aug to February	Sep to March	Oct to April	Nov to May	Dec to June	Jan to July
ILII						
Percentage Change	0.2%	0.5%	0.4%	0.5%	0.5%	0.6%
Annualized Percentage Change	0.4%	1.0%	0.7%	1.1%	0.9%	1.2%
Diffusion Index	50.0	62.5	37.5	50.0	50.0	62.5

Source: Tax Research and Program Analysis Section, Iowa Department of Revenue, produced August 30, 2012.

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		2012					
		February	March	April	May	June	July
AFPI ^b	↑ ^c						
Corn Profits (cents per bushel)		335.3	329.5	316.2	304.1	291.0	295.2
Soybean Profits (cents per bushel)		511.3	502.9	501.2	498.9	491.9	502.4
Hog Profits (cents per pound)		25.0	25.1	24.5	24.0	24.1	24.0
Cattle Profits (cents per pound)		-1.9	-2.4	-3.4	-3.9	-4.5	-4.9
Iowa Stock Market Index (10=1984-86)	↑	71.88	74.07	74.35	71.59	70.91	74.05
Yield Spread (10-year less 3-month)	↓	1.88	2.09	1.97	1.71	1.53	1.43
Residential Building Permits	↑	650	657	633	671	679	702
Average Weekly Unemployment Claims ^d	↑	3,640	3,573	3,521	3,469	3,460	3,421
Average Weekly Manufacturing Hours	↓	40.5	40.5	40.7	40.8	40.9	40.9
New Orders Index (percent)	↑	65.0	64.6	63.7	63.8	65.0	65.4
Diesel Fuel Consumption (mil gallons)	↓	54.88	54.90	54.84	54.88	55.00	54.99

Source: Tax Research and Program Analysis Section, Iowa Department of Revenue, produced August 30, 2012.

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 28, 2012).

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

- **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 July, this component contributed 0.12 to the ILII with the 12-month moving average increasing to 702, which is the first time the moving average has been over 700 since July 2008. July 2012 permits were 49.6 percent above the number of permits issued in July 2011, but still 30.8 percent below the historical average for July (1998-2008).
- **Iowa stock market index:** Capitalization-weighted index of 34 Iowa-based or Iowa-concentrated publicly-traded companies. During July 2012, 26 of the 34 companies gained value, including 10 of the 11 financial-sector companies. Based on the gains by three-fourths of the companies, the stock market index increased to 74.05, contributing 0.08 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 0.04 to the ILII value. The 12-month moving average of claims fell to 3,421 with unemployment claims for the month 15.2 percent below July 2011 claims. Initial claims for July 2012 were below average historical (1987-2008) claims for the first time since July 2008.
- **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 July, this component contributed 0.02 to the ILII value. Expected profits rose for both grains and fell for both livestock components. Compared to last year, corn prices are up 13.9 percent, soybean prices are up 15.3 percent, and expected profitability increased for both in July. Cattle prices are up 5.7 percent over last year, but that increase was not enough to offset higher production costs. Hog prices decreased 3.1 percent over last year and expected profitability fell.
- **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. In July, the monthly value of the index fell to 65.0 from 73.7 in June, but it was above the value of 60.8 from a year ago. The 12-month moving average of the new orders index rose to 65.4, contributing 0.02 to the ILII.
- **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 0.2 percent between July 2011 and 2012, causing the 12-month moving average to fall slightly to 54.99 million gallons from 55.00 in June, and contributing 0.00 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 July 2012, this component contributed -0.01 to the ILII value. July 2012 hours were 40.2 compared to 40.3 hours in July 2011, holding the 12-month moving average steady at 40.9 due to rounding.
- **Yield spread:** Difference between the yield on 10-year Treasury bonds and 3-month Treasury notes. During July, the yield spread fell to 1.43 percent as the long-term rate fell 9 basis points and the short-term rate rose 1 basis point. For the month, the yield spread contributed -0.03 to the ILII.

Table 3. ILII Components and Standardization Factors for FY 2013

Iowa Leading Indicator Index Components	Standardization Factor
Agricultural Futures Profits Index	0.049
Iowa Stock Market Index	0.018
Yield Spread	0.328
Building Permits	0.036
Average Weekly Unemployment Claims	0.033
Average Weekly Manufacturing Hours	0.284
New Orders Index	0.063
Diesel Fuel Consumption	0.188

Source: Tax Research and Program Analysis Section, Iowa Department of Revenue, produced August 28, 2012
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 2012 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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