

IOWA Department of REVENUE

NOTICE: The Iowa Leading Indicators Index (ILII) underwent an annual update between the release of the June and July 2011 reports. As part of that update, the calculations of two components were altered, increasing the level of the ILII over much of the history of the index, but little impact on recent changes.

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 telecommunication company merged with a company headquartered in Arkansas, and a second telecommunications company became privately-held. The former was kept in the index, but the stock price and shares data were changed to reflect the historical valuations of the purchasing company.

The second change was made to the agricultural futures profits index (AFPI), an index of corn, soybean, hog, and cattle estimated profits. During 2011, historical break-even costs for corn and soybeans were adjusted. Those historical changes were incorporated during the update. In addition, 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: Fifth 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 2011 Report

Tax Research and Program Analysis Section
Released September 2, 2011

The Iowa Leading Indicators Index (ILII) rose to 104.8 (100=1999) in July 2011 from a revised 104.7 in June. The Iowa non-farm employment coincident index recorded a 0.11 percent rise in July, the strongest increase since January 2007 and the seventh consecutive monthly increase above 0.05 percent.

The ILII's value increased 0.1 percent in July after two months of declines in May and June. During the six-month span through July, the ILII rose 0.8 percent (an annualized rate of 1.7 percent). The six-month diffusion index dropped to 37.5 with five of the eight components (average weekly manufacturing hours, the Iowa stock market index, new residential building permits, the national yield spread, and the new orders index) experiencing a decline of more than 0.05 percent over the last half a year.

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

Figure 1. Iowa Leading Indicators Index and Iowa Non-Farm Employment Coincident Index: January 1999-July 2011

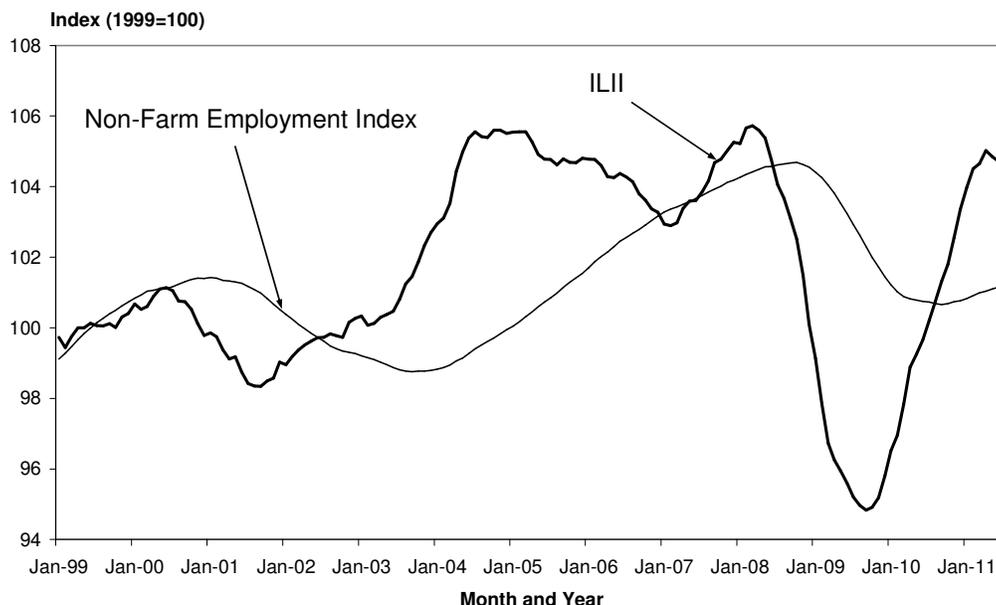


Table 1. Iowa Leading Indicators Index: Six Month Overview

Monthly Values	2011					
	February	March	April	May	June	July
ILII	104.5	104.7	105.0	104.8	104.7	104.8
Percentage Change ^a	0.5%	0.1%	0.3%	-0.2%	-0.1%	0.1%
Diffusion Index ^b	75.0	50.0	75.0	37.5	37.5	56.3
Six-Month Values	Aug to February	Sep to March	Oct to April	Nov to May	Dec to June	Jan to July
ILII						
Percentage Change	3.7%	3.3%	3.2%	2.2%	1.3%	0.8%
Annualized Percentage Change	7.5%	6.6%	6.3%	4.5%	2.6%	1.7%
Diffusion Index	87.5	87.5	87.5	87.5	62.5	37.5

Source: Tax Research and Program Analysis Section, Iowa Department of Revenue, produced August 30, 2011.

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		2011					
		February	March	April	May	June	July
AFPI ^b	↑ ^c						
Corn Profits (cents per bushel)		154.2	183.5	219.7	252.5	275.4	295.6
Soybean Profits (cents per bushel)		365.5	408.2	449.4	491.7	521.9	549.2
Hog Profits (cents per pound)		23.4	23.3	23.2	22.4	22.1	21.9
Cattle Profits (cents per pound)		5.9	6.1	5.9	5.0	4.2	3.2
Iowa Stock Market Index (10=1984-86)	↑	72.91	71.01	72.60	69.68	66.89	69.57
Yield Spread (10-year less 3-month)	↓	3.45	3.31	3.40	3.13	2.96	2.96
Building Permits	↓	613	605	624	624	622	613
Average Weekly Unemployment Claims ^d	↑	4,453	4,328	4,254	4,170	4,080	3,996
Average Weekly Manufacturing Hours	↓	41.2	41.1	40.9	40.8	40.7	40.5
New Orders Index (percent)	↓	73.6	74.1	74.0	72.9	70.6	68.9
Diesel Fuel Consumption (mil gallons)	↑	54.87	54.92	54.99	54.74	54.94	55.27

Source: Tax Research and Program Analysis Section, Iowa Department of Revenue, produced August 30, 2011.

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 30, 2011).

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

- **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 7.4 percent between July 2010 and 2011, causing the 12-month moving average to increase 0.6 percent to 55.27 million gallons, and contributing 0.11 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. Changes are calculated based on a 12-month moving average. During July, this component contributed 0.11 to the ILII value as the 12-month moving average of expected profits for corn and soybeans improved. Compared to last year; corn prices are up 69 percent, soybean prices are up 42 percent, cattle prices are up 22 percent, and hog prices are also up 22 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. This component contributed 0.07 to the ILII value. The 12-month moving average of claims fell to 3,996 with unemployment claims for the month 24.6 percent below July 2010 claims. Initial claims for July 2011 were only 1.6 percent above average July claims (1987-2008) after two and a half years of historically high claims.
- **Iowa stock market index:** Capitalization-weighted index of 33 Iowa-based or Iowa-concentrated publicly-traded companies. During July 2011, 22 of the 33 companies gained value, including 9 of the 12 financial-sector companies. The revised stock market index rose to 69.57, contributing 0.07 to the ILII value.
- **Yield spread:** Difference between the yield on 10-year Treasury bonds and 3-month Treasury notes. During July, the yield spread remained unchanged at 2.96 percent as both the long-term rate and the short-term rate were unchanged. For the month, the yield spread contributed zero to the ILII.
- **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 -0.05 to the ILII with the 12-month moving average dipping to 613. July 2011 permits were 16.2 percent lower than the number of permits issued in July 2010, and they were 53.8 percent below the historical average for July (1998-2008).
- **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 July 2011, the 12-month moving average fell to 40.5, contributing -0.08 to the ILII. July 2011 hours were 40.3, down from 41.7 hours reported in July 2010. Average manufacturing hours remained one hour below the historical average (1998-2008) for the eighth consecutive month.
- **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 index rose to 60.8 from 59.1 in June, but was below the 81.0 reading from a year ago. The 12-month moving average of the new orders index dropped to 68.9, contributing -0.10 to the ILII.

Table 3. ILII Components and Standardization Factors for FY 2012

Iowa Leading Indicator Index Components	Standardization Factor
Agricultural Futures Profits Index	0.054
Iowa Stock Market Index	0.017
Yield Spread	0.326
Building Permits	0.037
Average Weekly Unemployment Claims	0.034
Average Weekly Manufacturing Hours	0.284
New Orders Index	0.062
Diesel Fuel Consumption	0.186

Source: Tax Research and Program Analysis Section, Iowa Department of Revenue, produced August 30, 2011
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 2011 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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