Iowa Leading Indicators Index
March 2007

Iowa Department of Revenue
Tax Research and Program Analysis Section

The Iowa Leading Indicators Index (ILII) rose 0.4 percent in March 2007. The Iowa non-farm employment coincident index increased by 0.1 percent in March, the 40th consecutive monthly increase.

The ILII's value in March rose to 105.8 (100=1999). The index has been relatively flat the past five months experiencing a 0.2 percent rise in February to a revised 105.4, a 0.1 percent fall in January, and 0.1, 0.0 and 0.1 percent increases in December, November, and October (percentage changes differ across months due to rounding). During the six-month span through March, the ILII increased 0.6 percent (a 1.2 percent annual rate). The six-month diffusion index (value of 50.0) reflects four of eight components increasing and the other four decreasing over the last half year.

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

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

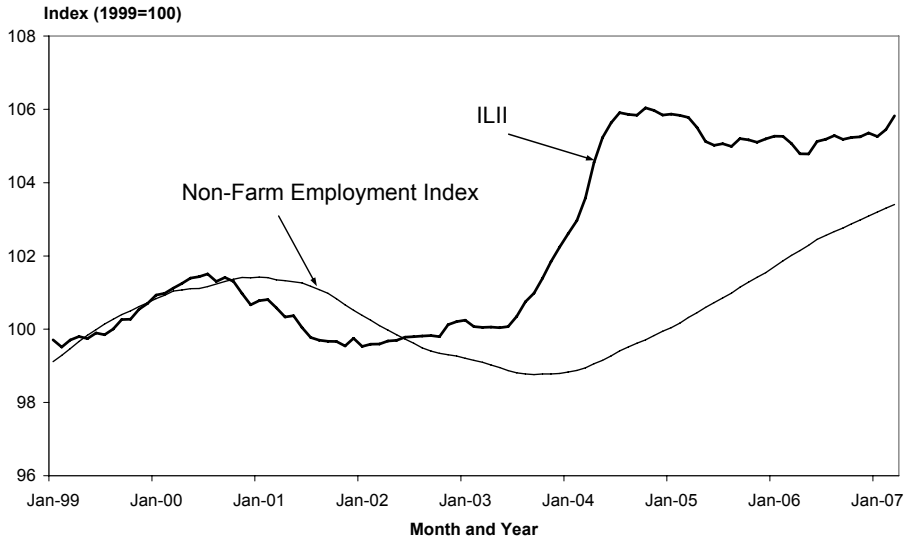

Table 1. Iowa Leading Indicators Index: Six Month Overview

Monthly Values	2006 October	November	December	2007 January	February	March
ILII	105.2	105.2	105.4	105.3	105.4	105.8
Percentage Change[a]	0.1%	0.0%	0.1%	-0.1%	0.2%	0.4%
Diffusion Index[b]	50.0	37.5	68.8	43.8	50.0	81.3

Six-Month Values	Apr to October	May to November	June to December	July to January	Aug to February	Sept to March
ILII						
Percentage Change	0.4%	0.4%	0.2%	0.1%	0.2%	0.6%
Diffusion Index	62.5	50.0	50.0	50.0	50.0	50.0

Source: Tax Research and Program Analysis Section, Iowa Department of Revenue, produced April 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]		2006 October	November	December	2007 January	February	March
AFPI[b]	↑[c]						
Hog Profits (cents per pound)		14.2	14.0	13.1	13.3	14.0	14.6
Corn (cents per bushel)		246.3	259.9	272.4	287.1	302.9	317.8
Soybeans (cents per bushel)		595.2	600.8	608.0	618.3	633.2	648.2
Cattle Profits (cents per pound)		2.2	1.5	0.2	-0.6	-1.5	-1.1
Iowa Stock Market Index (10=1984-86)	↑	53.76	54.51	55.23	56.13	57.09	57.83
Yield Spread (10-year less 3-month)	↓	-0.32	-0.47	-0.41	-0.35	-0.44	-0.52
Building Permits	↑	1,102	1,059	1,070	1,044	1,009	1,009
Average Weekly Unemployment Claims[d]	↑	3,241	3,283	3,298	3,415	3,458	3,449
Average Weekly Manufacturing Hours	↑	41.9	41.9	41.9	41.9	42.0	42.1
New Orders Index (percent)	↑	58.9	57.8	56.0	55.3	54.8	55.1
Diesel Fuel Consumption (mil gallons)	↓	55.03	55.48	55.70	55.38	55.68	55.68

Source: Tax Research and Program Analysis Section, Iowa Department of Revenue, produced April 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

- Agricultural futures price index: Composite measure of cattle, hogs, corn and soybeans futures prices weighted by the respective share of annual Iowa production value. 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 March 2007 this component contributed 0.15 percent to the ILII value with strong markets for corn and soybean prices and improvements in profits for hogs and cattle.

- 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 March 2007 this component contributed 0.12 percent to the ILII value. The monthly hours value for February was revised downwards causing the slight revision in the February ILII.

- Iowa stock market index: Capitalization-weighted index of 29 Iowa-based or Iowa-concentrated publicly-traded companies. Changes are calculated based on a 12-month moving average. During March 2007 this component contributed 0.07 percent to the ILII value as 4 of 29 companies, but none of the 11 financial-sector companies, gained value during the month. Although March numbers were weak, the index remained positive because of the preceding strong months also included in the 12-month moving average.

- 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 March 2007 this component contributed 0.02 percent to the ILII value. The monthly new orders index value for March came in at the highest level since March 2005 suggesting strong future demand for goods produced in Iowa.

- 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 March 2007 this component contributed 0.01 percent to the ILII value as the number of initial claims fell for the first time after a six month rise.

- 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 March 2007 this component contributed 0.00 percent to the ILII value as the average count inched up just 0.6 permits in March (its value is unchanged due to rounding).

- Diesel fuel consumption: Number of taxable gallons of diesel fuel sold in Iowa. Changes are calculated based on a 12-month moving average. During March 2007 this component contributed -0.00 percent to the ILII value as average consumption experienced a drop of less than 2,000 gallons.

- Yield spread: Difference between the yield on 10-year Treasury bonds and 3-month Treasury notes. The yield spread remained inverted for the eighth month. During March 2007 the yield spread value fell further as the long-term rate fell relatively more than the short-term rate. This component contributed -0.02 percent to the ILII value.

Table 3. ILII Components and Standardization Factors

Iowa Leading Indicator Components	Standardization Factor
Agricultural Futures Price Index	0.130
Iowa Stock Market Index	0.056
Yield Spread	0.236
Building Permits	0.030
Unemployment Claims	0.032
Average Weekly Hours	0.302
New Orders Index	0.053
Diesel Fuel Consumption	0.161

Source: Tax Research and Program Analysis Section, Iowa Department of Revenue, produced July 24, 2006. 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 2006 period. These factors equalize the volatility of the contribution from each component and are normalized to 1. 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.