Urban Land Institute

Prosperity in the Age of Decline

Brian Beaulieu
CEO
<table>
<thead>
<tr>
<th>indicator</th>
<th>duration</th>
<th>forecast</th>
<th>actuals</th>
<th>accuracy</th>
</tr>
</thead>
<tbody>
<tr>
<td>US GDP</td>
<td>12</td>
<td>$15.818 Trillion</td>
<td>$15.966 Dec</td>
<td>99.3%</td>
</tr>
<tr>
<td>US Ind. Prod.</td>
<td>10</td>
<td>99.9 (12MMA)</td>
<td>99.6 Dec</td>
<td>99.7%</td>
</tr>
<tr>
<td>EU Ind. Prod.</td>
<td>20</td>
<td>101.9 (12MMA)</td>
<td>100.6 Dec</td>
<td>98.7%</td>
</tr>
<tr>
<td>Canada Ind Prod</td>
<td>15</td>
<td>98.7 (12MMA)</td>
<td>97.8 Dec</td>
<td>99.2%</td>
</tr>
<tr>
<td>China Ind Prod</td>
<td>9</td>
<td>522.6 (12MMA)</td>
<td>520.1 Dec</td>
<td>99.5%</td>
</tr>
<tr>
<td>US Housing</td>
<td>12</td>
<td>945 Ths Units</td>
<td>923 Dec</td>
<td>97.7%</td>
</tr>
<tr>
<td>US Retail Sales</td>
<td>18</td>
<td>$2.189 Trillion</td>
<td>$2.200 Dec</td>
<td>99.5%</td>
</tr>
<tr>
<td>US Employment</td>
<td>24</td>
<td>144.3 Million</td>
<td>143.9 Dec</td>
<td>99.7%</td>
</tr>
</tbody>
</table>
Real Gross Domestic Product

Sept 2013

June 2013

Sept 2013

GDPCON 3MMA
US, Minnesota & the Plains
Annual GSP Growth Rate

2009 Dollars
Unemployment Rates - Minnesota

Sept 2014
MN 4.1%
US 5.9%
Minnesota Construction Industry Employment

Thousands of Units

MMA

8.6%
6.9%

R-O-C

107.142

'T98 '00 '02 '04 '06 '08 '10 '12 '14 '16 '18 '20

Thousands of Units

ITR ECONOMICS
World GDP, Trillions of US $, Current Prices

73.982 Trillion US$
Percent of 2013 World GDP

Source: IMF
Interest Rates for Long-Term Government Bonds

<table>
<thead>
<tr>
<th>Country</th>
<th>Latest Yield</th>
</tr>
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<tbody>
<tr>
<td>Australia</td>
<td>3.3%</td>
</tr>
<tr>
<td>Austria</td>
<td>1.0%</td>
</tr>
<tr>
<td>Belgium</td>
<td>1.1%</td>
</tr>
<tr>
<td>Canada</td>
<td>2.1%</td>
</tr>
<tr>
<td>Denmark</td>
<td>1.1%</td>
</tr>
<tr>
<td>Finland</td>
<td>0.9%</td>
</tr>
<tr>
<td>France</td>
<td>1.2%</td>
</tr>
<tr>
<td>Germany</td>
<td>0.8%</td>
</tr>
<tr>
<td>Greece</td>
<td>8.1%</td>
</tr>
<tr>
<td>Ireland</td>
<td>1.7%</td>
</tr>
<tr>
<td>Italy</td>
<td>2.4%</td>
</tr>
<tr>
<td>Japan</td>
<td>0.5%</td>
</tr>
<tr>
<td>Netherlands</td>
<td>1.0%</td>
</tr>
<tr>
<td>New Zealand</td>
<td>4.0%</td>
</tr>
<tr>
<td>Portugal</td>
<td>3.2%</td>
</tr>
<tr>
<td>Spain</td>
<td>2.1%</td>
</tr>
<tr>
<td>Sweden</td>
<td>1.2%</td>
</tr>
<tr>
<td>Switzerland</td>
<td>0.4%</td>
</tr>
<tr>
<td>UK</td>
<td>2.2%</td>
</tr>
<tr>
<td>US</td>
<td>2.3%</td>
</tr>
</tbody>
</table>
Global Industrial Production Indices

3.9% Japan
3.8% US
1.9% SE Asia
1.4% Europe
0.7% Mexico
-1.7% Brazil

12/12 Rates-of-Change
US to Europe Industrial Production

Annual Average Data Trends
### Data Preparation

<table>
<thead>
<tr>
<th></th>
<th>Raw</th>
<th>3MMT</th>
<th>3/12</th>
<th>12MMT</th>
<th>12/12</th>
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<tr>
<td>Aug-12</td>
<td>1.4</td>
<td></td>
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<tr>
<td>Sep-12</td>
<td>1.5</td>
<td></td>
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<td></td>
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<tr>
<td>Oct-12</td>
<td>1.5</td>
<td>4.4</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Nov-12</td>
<td>1.4</td>
<td>4.4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dec-12</td>
<td>1.5</td>
<td>4.4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Jan-13</td>
<td>1.3</td>
<td>4.2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Feb-13</td>
<td>1.3</td>
<td>4.1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mar-13</td>
<td>1.6</td>
<td>4.2</td>
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<tr>
<td>Apr-13</td>
<td>1.6</td>
<td>4.5</td>
<td></td>
<td></td>
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<td>May-13</td>
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<td></td>
<td></td>
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</tr>
<tr>
<td>Jun-13</td>
<td>1.7</td>
<td>4.8</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Jul-13</td>
<td>1.6</td>
<td>4.8</td>
<td>18.0</td>
<td></td>
<td></td>
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<tr>
<td>Aug-13</td>
<td>1.7</td>
<td>5.0</td>
<td>18.2</td>
<td></td>
<td></td>
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<tr>
<td>Sep-13</td>
<td>1.7</td>
<td>5.0</td>
<td>18.4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oct-13</td>
<td>1.7</td>
<td>5.1</td>
<td>15.9%</td>
<td>18.6</td>
<td></td>
</tr>
<tr>
<td>Nov-13</td>
<td>1.6</td>
<td>5.0</td>
<td>13.6%</td>
<td>18.8</td>
<td></td>
</tr>
<tr>
<td>Dec-13</td>
<td>1.7</td>
<td>5.0</td>
<td>13.6%</td>
<td>19.0</td>
<td>26.7%</td>
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<tr>
<td>Jan-14</td>
<td>1.5</td>
<td>4.8</td>
<td>14.3%</td>
<td>19.2</td>
<td>25.5%</td>
</tr>
<tr>
<td>Feb-14</td>
<td>1.5</td>
<td>4.7</td>
<td>14.6%</td>
<td>19.4</td>
<td>25.2%</td>
</tr>
<tr>
<td>Mar-14</td>
<td>1.9</td>
<td>4.9</td>
<td>16.7%</td>
<td>19.7</td>
<td>22.4%</td>
</tr>
<tr>
<td>Apr-14</td>
<td>1.7</td>
<td>5.1</td>
<td>13.3%</td>
<td>19.8</td>
<td>20.0%</td>
</tr>
<tr>
<td>May-14</td>
<td>1.7</td>
<td>5.3</td>
<td>12.8%</td>
<td>20.0</td>
<td>18.3%</td>
</tr>
<tr>
<td>Jun-14</td>
<td>1.9</td>
<td>5.3</td>
<td>10.4%</td>
<td>20.2</td>
<td>15.4%</td>
</tr>
<tr>
<td>Jul-14</td>
<td>1.7</td>
<td>5.3</td>
<td>10.4%</td>
<td>20.3</td>
<td>12.7%</td>
</tr>
</tbody>
</table>

### 3/12 Rate-of-Change

$$\frac{July\ 2014\ 3MMT}{July\ 2013\ 3MMT} \times 100 - 100$$

$$\frac{5.3}{4.8} \times 100 - 100 = 10.4\%$$

### 12/12 Rate-of-Change

$$\frac{July\ 2014\ 12MMT}{July\ 2013\ 12MMT} \times 100 - 100$$

$$\frac{20.3}{18.0} \times 100 - 100 = 12.7\%$$
US Industrial Production to ITR Leading Indicator™

Reported in *ITR Trends Report – ITR Advisor*
US Leading Indicator

As seen in the ITR Trends Report

Source: The Conference Board
Non-Manufacturing Purchasing Managers Index

Above 50 Indicates expansion

Institute for Supply Management
Global Leading Indicators

-0.4% Eurozone Composite PMI
0.2% JP Morgan Global Mfg PMI
-1.4% EU Manufacturing PMI
Executive Vantage Point (EVP) for Companies

Company A

Indicator - 1/12

'06 '07 '08 '09 '10 '11 '12 '13 '14 '15 '16

ITR Economics
Generating the Quantitative Forecast

Internal Trends

Leading Economic Indicators

ITR Long Term Business Cycle Theory

News and Market Observations
US Industrial Production to Gross Domestic Product

Year-over-year, Quarter to Quarter (3/12)
Total U.S. Public Debt

The Long View...

117.5%
Average Annual Worker and Employer Contributions to Premiums and Total Premiums for Single Coverage, 1999-2013

* Estimate is statistically different from estimate for the previous year shown (p<.05).

Health Care Spending

Average spending on health per capita ($US PPP)

Total expenditures on health as percent of GDP

Source: OECD Health Data 2010 (Oct. 2010)
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U.S. Dependence on Foreign Oil Declining
Net imports as a share of domestic consumption

2005: 60.3%
2006: 59.8%
2007: 58.1%
2008: 56.8%
2009: 51.3%
2010: 49.1%
2011: 44.9%
2012: 40.2%
2013: 32.3%

Source: Energy Information Administration
The Tip of the Iceberg for Manufacturing
Finding a Home in the USA

<table>
<thead>
<tr>
<th>Apple</th>
<th>Rolls Royce</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yamaha</td>
<td>Honda</td>
</tr>
<tr>
<td>Michelin</td>
<td>Lenovo</td>
</tr>
<tr>
<td>Wham-O</td>
<td>Airbus</td>
</tr>
<tr>
<td>Bayer Chemical</td>
<td>Toshiba</td>
</tr>
<tr>
<td>Caterpillar</td>
<td>Toyota</td>
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<tr>
<td>GE</td>
<td>Flextronics</td>
</tr>
<tr>
<td>NCR</td>
<td>Siemens</td>
</tr>
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</table>
US Annual Auto Exports
### Household Distribution by Income Level

**Source:** Census Bureau

<table>
<thead>
<tr>
<th>Income by Household</th>
<th>% in 1967</th>
<th>% in 2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than $35,000</td>
<td>39.9%</td>
<td>35.4%</td>
</tr>
<tr>
<td>$35,000 to $200,000</td>
<td>59.3%</td>
<td>60.3%</td>
</tr>
<tr>
<td>Over $200,000</td>
<td>0.9%</td>
<td>4.5%</td>
</tr>
</tbody>
</table>
The next Great Depression is coming.

Are you ready?

Available in e-book and print format.

Order your copy today from Barnes & Noble.
Commercial & Industrial Loans at Commercial Banks

Don’t forget private equity and alternate sources

Two to three year period of adjustment

Rates-of-Change
Employment – Private Sector

Annual Data Trend

Employment Mils of Jobs
On-Highway Diesel Fuel Prices to Crude Oil Futures Prices

Sources: EIA, Wall Street Journal
Commodity Price Index

Steel: $345.00 per Gross Ton
Oil: $80.54 per Barrel
Copper: $3.06 per Pound

3MMA - Index Dec 2009=300
Corporate AAA Bond Yields Inverted for Prices

Source: Federal Reserve Board
Corporate AAA Bond Prices to the S&P 500

Source: Wall Street Journal

Data Trends

Source: Wall Street Journal
Personal Savings

Billions of Dollars, Annual Data Trend SAAR
## Retail Sales

<table>
<thead>
<tr>
<th>Category</th>
<th>12/12 Rates-of-Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sport Goods</td>
<td>-4.9</td>
</tr>
<tr>
<td>Automotive Parts Stores</td>
<td>-1.5</td>
</tr>
<tr>
<td>General Merchandise Stores</td>
<td>1.3</td>
</tr>
<tr>
<td>Clothing Stores</td>
<td>2.0</td>
</tr>
<tr>
<td>Grocery Stores</td>
<td>2.3</td>
</tr>
<tr>
<td>Light Vehicle Sales</td>
<td>2.6</td>
</tr>
<tr>
<td>Furniture Stores</td>
<td>3.8</td>
</tr>
<tr>
<td>Bldg Materials, Garden, Supplies</td>
<td>4.3</td>
</tr>
<tr>
<td>Beer, Wine &amp; Alcoholic Beverage</td>
<td>5.0</td>
</tr>
<tr>
<td>Jewelry Stores</td>
<td>5.1</td>
</tr>
<tr>
<td>Health and Personal Care Stores</td>
<td>5.8</td>
</tr>
<tr>
<td>Online Retailers</td>
<td>8.2</td>
</tr>
</tbody>
</table>
Housing Starts to Household Formation

Source: US Census Bureau
Housing Starts to Housing Affordability Index

Sources: US Census Bureau
National Association of Realtors
Housing Starts to Multi-Family Residential Construction

12/12 Rates-of-Change
Existing Home Sales

-40 -30 -20 -10 0 10 20 30
'Millions of Units

'96 '98 '00 '02 '04 '06 '08 '10 '12 '14 '16 '18 '20

12MMA
3MMA
3/12
12/12

-3.5% -3.8%

ITR ECONOMICS
US to Minneapolis/St. Paul Median Home Sale Prices

Annual Data Trends

US Median Price
Minneapolis Median Price

$204.3
$112.8
US Industrial Production to Non-Residential Construction

- Private Chemical: +48.3% and accelerating
- Warehouse: +36.8% and accelerating
- Private Manufacturing: +8.7% and accelerating
Private Commercial Buildings Construction to Multi-Retail Buildings Construction

12/12 Rates of Change

13.1%  25.3%

12/12 Rates-of-Change

ITR ECONOMICS
Public Educational Buildings Construction to State & Local Government Expenditures

Expenditures - 3/12

Construction - 12/12
1. Positive leadership modeling (culture turns to behavior)
2. Invest in customer market research (know what they value)
3. Training programs (people, process, internal metrics)
4. Review and uncover competitive advantages
5. Spend $ on new products, marketing, advertising
6. Improve efficiencies with investment in technology and software
7. Check systems for readiness to accommodate increased activity
8. Add Sales Staff and Hire Top People
9. Lock in costs
10. Judiciously examine credit
11. Work on “what’s next”
Look for More Opportunities in These Sectors

- Energy Distribution
- Water Distribution/Conservation
- Exports from U.S.
- Vocational Education
- Health Care
- Food
- Mexico
- Housing
- Printed Electronics
- Robotics
- Security
- 3-D Printing
- Natural Resources (Harvesting/Conserving)
- Entertainment
8 Must Watch Items

- ITR Leading Indicator
- Housing Starts
- Bond Market
- US Leading Indicator
- Purchasing Managers Index
- Retail Sales
- Employment
- Nondefense Capital Goods New Orders

Available from ITR via *ITR Trends Report*, the *ITR Advisor*, or on the web
Nikki@ITReconomics.com
(With your Company Name and Email Address)

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