## Results for 2011

<table>
<thead>
<tr>
<th></th>
<th>Duration</th>
<th>Forecast</th>
<th>Actual</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>GDP</strong></td>
<td>18</td>
<td>$13.525</td>
<td>$13.332</td>
<td>(-1.4%)</td>
</tr>
<tr>
<td><strong>US Ind Prod.</strong></td>
<td>11</td>
<td>93.1 (12MMA)</td>
<td>93.8</td>
<td>(0.8%)</td>
</tr>
<tr>
<td><strong>EU Ind. Prod.</strong></td>
<td>11</td>
<td>101.1 (12MMA)</td>
<td>101.2</td>
<td>(0.1%)</td>
</tr>
<tr>
<td><strong>CA Ind. Prod.</strong></td>
<td>21</td>
<td>96.0</td>
<td>96.0</td>
<td>(0.0%)</td>
</tr>
<tr>
<td><strong>Retail Sales</strong></td>
<td>18</td>
<td>$2.116 Trillion</td>
<td>$2.106</td>
<td>(-0.5%)</td>
</tr>
<tr>
<td><strong>Housing</strong></td>
<td>17</td>
<td>579 Ths Units</td>
<td>607</td>
<td>(4.8%)</td>
</tr>
<tr>
<td><strong>Employment</strong></td>
<td>20</td>
<td>141.1 million</td>
<td>139.9</td>
<td>(-0.9%)</td>
</tr>
<tr>
<td><strong>CPI</strong></td>
<td>17</td>
<td>2.9%</td>
<td>3.2%</td>
<td></td>
</tr>
</tbody>
</table>

* End of year 12-month index estimate
## Results for 2011

<table>
<thead>
<tr>
<th>Country</th>
<th>Duration</th>
<th>Accuracy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Germany</td>
<td>12</td>
<td>98.0%</td>
</tr>
<tr>
<td>France</td>
<td>18</td>
<td>99.9%</td>
</tr>
<tr>
<td>Italy</td>
<td>18</td>
<td>99.9%</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>18</td>
<td>99.9%</td>
</tr>
<tr>
<td>Spain</td>
<td>18</td>
<td>98.6%</td>
</tr>
<tr>
<td>China</td>
<td>17</td>
<td>96.7%</td>
</tr>
<tr>
<td>Japan</td>
<td>15</td>
<td>95.9%</td>
</tr>
<tr>
<td>Brazil</td>
<td>14</td>
<td>96.7%</td>
</tr>
<tr>
<td>EU Industries</td>
<td>14</td>
<td>94.1%</td>
</tr>
</tbody>
</table>
US/Global Recovery

• Leading indicators pointing up
• Liquidity is not an issue
• Stimulative monetary policy
• Employment rising (companies right-sized)
• Banks are lending
• Retail Sales are rising
• Construction is improving
• Deficit spending continues
World GDP, Bils of US $, Current Prices

Percent of 2011 World GDP

- United States: 21.7%
- China: 10.5%
- Japan: 8.4%
- Germany: 5.1%
- France: 4.0%
- Brazil: 3.6%
- Italy: 3.5%
- Canada: 3.2%
- Russia: 2.7%
- India: 2.4%
- Australia: 2.1%
- Spain: 2.1%
- Mexico: 1.7%
- Korea: 1.6%
- All Others: 25.0%

Source: IMF

69,659 Trillion US$
Real Gross Domestic Product

Trillions of $
US Industrial Production to ITR Leading Indicator

US Industrial Production to ITR Leading Indicator

- **US IP**
- **Indicator**

- **Indicator - Monthly**
- **US IP - 12/12**

- **USIP – 12/12**
- **Indicator - Monthly**

www.itreconomics.com
<table>
<thead>
<tr>
<th></th>
<th>Raw</th>
<th>3MMT</th>
<th>3/12</th>
<th>12MMT</th>
<th>12/12</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jan-10</td>
<td>1.4</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Feb-10</td>
<td>1.5</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mar-10</td>
<td>1.5</td>
<td>4.4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Apr-10</td>
<td>1.4</td>
<td>4.4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>May-10</td>
<td>1.5</td>
<td>4.4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Jun-10</td>
<td>1.3</td>
<td>4.2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Jul-10</td>
<td>1.3</td>
<td>4.2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aug-10</td>
<td>1.6</td>
<td>4.3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sep-10</td>
<td>1.6</td>
<td>4.6</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oct-10</td>
<td>1.5</td>
<td>4.8</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nov-10</td>
<td>1.7</td>
<td>4.8</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dec-10</td>
<td>1.6</td>
<td>4.8</td>
<td>18.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Jan-11</td>
<td>1.7</td>
<td>4.9</td>
<td>18.3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Feb-11</td>
<td>1.7</td>
<td>4.9</td>
<td>18.5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mar-11</td>
<td>1.7</td>
<td>5.0</td>
<td>14.1%</td>
<td>18.6</td>
<td></td>
</tr>
<tr>
<td>Apr-11</td>
<td>1.6</td>
<td>5.0</td>
<td>13.6%</td>
<td>18.8</td>
<td></td>
</tr>
<tr>
<td>May-11</td>
<td>1.7</td>
<td>5.0</td>
<td>13.2%</td>
<td>19.0</td>
<td></td>
</tr>
<tr>
<td>Jun-11</td>
<td>1.5</td>
<td>4.9</td>
<td>15.1%</td>
<td>19.2</td>
<td></td>
</tr>
<tr>
<td>Jul-11</td>
<td>1.5</td>
<td>4.7</td>
<td>13.5%</td>
<td>19.4</td>
<td></td>
</tr>
<tr>
<td>Aug-11</td>
<td>1.9</td>
<td>4.9</td>
<td>14.1%</td>
<td>19.6</td>
<td></td>
</tr>
<tr>
<td>Sep-11</td>
<td>1.7</td>
<td>5.1</td>
<td>11.3%</td>
<td>19.8</td>
<td></td>
</tr>
<tr>
<td>Oct-11</td>
<td>1.7</td>
<td>5.3</td>
<td>11.5%</td>
<td>20.0</td>
<td></td>
</tr>
<tr>
<td>Nov-11</td>
<td>1.9</td>
<td>5.3</td>
<td>10.1%</td>
<td>20.1</td>
<td></td>
</tr>
<tr>
<td>Dec-11</td>
<td>1.7</td>
<td>5.3</td>
<td>10.5%</td>
<td>20.3</td>
<td>12.7%</td>
</tr>
</tbody>
</table>

### 3/12 Rate-of-Change

\[
\text{Rate -of-Change} = \frac{\text{December 2011 3MMT}}{\text{December 2010 3MMT}} \times 100 - 100
\]

\[
= \frac{5.3}{4.8} \times 100 - 100 = 10.5\%
\]

### 12/12 Rate-of-Change

\[
\text{Rate -of-Change} = \frac{\text{December 2011 12MMT}}{\text{December 2010 12MMT}} \times 100 - 100
\]

\[
= \frac{20.3}{18.0} \times 100 - 100 = 12.7\%
\]
Phase 3 – Generate the Quantitative Forecast

Internal Trends

Leading Economic Indicators

ITR Long Term Business Cycle Theory

News and Market Observations
Output - Deliverables

Applicable Advice

Phase Management Objectives™

Phase A
1. Start to phase out marginal opportunities
2. Begin advertising and sales promotions
3. Implement training programs

Phase B
1. Check the process flow for possible future bottlenecks
2. Continue to build inventory
3. Increase prices

Phase C
1. Begin missionary efforts into new markets
2. Weed out inferior products (lose the losers)
3. Increase the requirements for capital expenditures

Phase D
1. Reduce advertising - be very selective
2. Tighten credit policies - increase scrutiny
3. Make acquisitions - use pessimism to your advantage
US Industrial Production to Gross Domestic Product

Year-over-year Quarter to Quarter (3/12)
Global Industrial Production

Year-Over-Year Growth Rates %

[Map showing global industrial production growth rates with various percentages indicated across different regions.]

www.itreconomics.com
US to Europe Industrial Production

Annual Average Data Trends
Western Europe Industrial Production

Year-Over-Year Growth Rates %
Gross Domestic Product by State
All Industry Total, 2011

Source: BEA U.S. = 14,981,020

- 418,944 to 1,958,904
- 254,819 to 416,943
- 130,924 to 254,818
- 63,557 to 130,924
- 25,905 to 63,556

Millions of current dollars

www.itreconomics.com
US, Minnesota & the Plains
Annual GSP Growth Rate

43.6% vs. 27.9% college educated
Unemployment Rates

US

Minnesota

'00 '01 '02 '03 '04 '05 '06 '07 '08 '09 '10 '11 '12

2000-2012

www.itreconomics.com
Employment – Private Sector

Annual Data Trend
Unemployment Rate With and Without the Recover Plan
Total U.S. Public Debt

(% of GDP)
Federal Spending Without & With Sequester Cuts
Annual and Cumulative, FY 2013*2021

Spending Increase Between 2013-2021

<table>
<thead>
<tr>
<th>Category</th>
<th>Without</th>
<th>With</th>
</tr>
</thead>
<tbody>
<tr>
<td>Defense</td>
<td>20%</td>
<td>18%</td>
</tr>
<tr>
<td>Nondefense Discretionary</td>
<td>14%</td>
<td>12%</td>
</tr>
<tr>
<td>Medicare</td>
<td>62%</td>
<td>62%</td>
</tr>
<tr>
<td>Other Mandatory</td>
<td>51%</td>
<td>51%</td>
</tr>
<tr>
<td>Net Interest</td>
<td>152%</td>
<td>136%</td>
</tr>
</tbody>
</table>

Spending Increase, 2013-2021

Source: Congressional Budget Office

Produced by: Veronique de Rugy, Mercatus Center at George Mason University

www.itreconomics.com
Sources: Current projections: Heritage Foundation calculations based on data from Congressional Budget Office, Alternative Fiscal Scenario. Heritage Plan: Calculations by the Center for Data Analysis, The Heritage Foundation, based on baseline data in the current projections, data provided by the Peter G. Peterson Foundation, and CDA policy models.
Costs by Age Categories

Healthcare Costs by Age

U.S. is spending much more for older ages


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Caught in the Web
Who can do what to whom

- Federal Reserve Act of 1913: 32 pages
- Glass-Steagall Act: 37
- Dodd-Frank: 848

Not rules, but instructions on how to create more regulations and bureaucracies

Source: The Economist
U.S. Dependence on Foreign Oil Declining
Net imports as a share of domestic consumption

Source: Energy Information Administration

www.itreconomics.com
G7 Productivity

5-year average annual percentage change in labour productivity

<table>
<thead>
<tr>
<th>Country</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>United States</td>
<td>1.4%</td>
</tr>
<tr>
<td>Japan</td>
<td></td>
</tr>
<tr>
<td>United Kingdom</td>
<td></td>
</tr>
<tr>
<td>Canada</td>
<td></td>
</tr>
<tr>
<td>Germany</td>
<td></td>
</tr>
<tr>
<td>France</td>
<td></td>
</tr>
</tbody>
</table>

10-year average annual percentage change in labour productivity

<table>
<thead>
<tr>
<th>Country</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>United States</td>
<td>1.8%</td>
</tr>
<tr>
<td>Japan</td>
<td></td>
</tr>
<tr>
<td>United Kingdom</td>
<td></td>
</tr>
<tr>
<td>Canada</td>
<td></td>
</tr>
<tr>
<td>Germany</td>
<td></td>
</tr>
<tr>
<td>France</td>
<td></td>
</tr>
<tr>
<td>Italy</td>
<td></td>
</tr>
</tbody>
</table>

Source: OECD / National Post
US Manufacturing as a % of GDP (Value Added)
Consumer Price Index – All Items

Rates-of-Change

www.itreconomics.com
Velocity of Money

Rates-of-Change

-I/12

-12/12

-20

-15

-10

-5

0

5

10

2006

2008

2010

2012

2014

-2.8

-5.2
Crude Oil Futures Prices

Light & Sweet $ per Barrel, Data Trends

www.itreconomics.com
M2 Money Supply

Trillions of $82

12MMA

Actual

1/12

12/12

MMA

R-O-C

M2 Money Supply

www.itreconomics.com
US Industrial Production to Corporate Bond Prices

12/12 Rates-of-Change
US Government 10-Year Bond Yields to Municipal Bond Yields

Municipal Bonds
Long Term Bonds

Raw Data
US Leading Indicator

Actual

12MMA

95.2
Purchasing Managers Index

Raw Data
Chicago Fed National Activity Index

3 Month Moving Average

3MMA
University of Michigan Consumer Expectations Index

12/12 Rate-of-Change

www.itreconomics.com
Delinquency Rates on Consumer Loans

Consumer Loan Delinquency Rate
Consumer Credit Card Delinquency Rate

Percentage

10 Year Average

3MMA Data Trends

www.itreconomics.com
Retail Sales Excluding Automobiles

Trillions of $82-84$
S&P 500 to FTSE 100

Data Trends

www.itreconomics.com
S&P 500 to Shanghai Stock Exchange Composite Index (SSEA)

Data Trends

www.itreconomics.com
Housing Starts

R-O-C

MMT

Millions of Units

'94 '96 '98 '00 '02 '04 '06 '08 '10 '12 '14

-90 -75 -60 -45 -30 -15 0 15 30

-30 -20 -10 0 10 20 30

www.itreconomics.com
Building Permits

12/12 Rates-of-Change

U.S.  Minnesota
Minneapolis Area Building Permits

Thousands of Units

Apartment vacancy low at 2.4% and rents on the rise
US to Minneapolis/St. Paul Median Home Sale Prices

Annual Data Trends

US Median Price

Minneapolis Median Price

$169.2

$158.4
Housing Starts to Multi-Family Residential Construction

12/12 Rates-of-Change

www.itreconomics.com
Private Commercial Buildings Construction to Multi-Retail Buildings Construction

MSP retail: total value and mean price rising
Vacancy rate about national average at 11.5%
Warehouse Buildings Construction

Private, Billions of Dollars
Public Educational Buildings Construction to State & Local Government Expenditures

Rates-of-Change
MSP vacancy high at 18.2%; rents expected to be rising
1. Positive leadership modeling (culture turns to behavior)
2. Establish goals: tactical goals which lead to strategic achievement
3. Develop a system for measurement and accountability re:#2
4. Align compensation plans with #2 and #3
5. Be keenly aware of the BE (Break Even) point and check it regularly
6. Judiciously expand credit
7. Check distributions systems for readiness to accommodate increased activity
8. Review and uncover competitive advantages
9. Invest in customer market research (know what they value)
10. Improve efficiencies with investment in technology and software
11. Start to phase out marginal opportunities
12. Add sales staff
13. Build inventories (consider lead time and turn rate)
14. Introduce new product lines
15. Determine capital equipment needs and place orders
16. Begin advertising and sales promotions
17. Hire "top" people
18. Implement plans for facilities expansion
19. Implement training programs
7 Must Watch Items

- ITR Leading Indicator
- Housing Starts
- 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
9. Identify and overcome any competitive disadvantages
10. Make sure you and the management team are not in denial
11. Cross train key people
12. Watch Accounts Receivable aging
13. Increase the requirements for justification of capital expenditures
14. Evaluate vendors for strength (don’t get caught honoring their warranties with no one to accept returned goods)
15. Manage the backlog through pricing and delivery, try to fill the funnel
Complimentary Copy of the ITR Advisor

• Concise 4 Page Report
• Excellent Economic “Snap Shot"
• Consists of Current Events, Brief Industry Segments, Snap Shot Indicators, Readers' Questions, Fed Notes, ITR Opportunity Index, and more
• Delivered Monthly

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Subject: “Brian is Cool”  
With your contact information