Introduction for the Day

- Economic Outlook – more recovery
- Income Distribution – front-burner issue
- BEA Industry Data – our raw material
- Health Care – what now?
- Infrastructure – imperative investment
Economic Outlook

- Can we leave the era of the Great Recession behind?
- Indicators and headlines. For now, the good news outweighs the bad.
- Domestic demand momentum is strong. Housing is still a question.
- Trade may place a drag on growth, but one not likely to be strong.
- Foreign financial and security linkages pose the biggest threat to economic growth and stability.

GDP Growth is strong(er) ...
The GDP Gap is Closing
Real GDP – CBO Potential (% of Potential)

Employment is Accelerating....
Employment year-on-year percentage growth

Source: Bureau of Labor Statistics
Source: BLS Job Openings and Labor Turnover Survey (JOLTS)
Participation Rate by Cohort

<table>
<thead>
<tr>
<th>Year</th>
<th>Total</th>
<th>25-54</th>
<th>20-24</th>
<th>55+</th>
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<tr>
<td>1990</td>
<td>20</td>
<td>30</td>
<td>50</td>
<td>60</td>
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<tr>
<td>2000</td>
<td>24</td>
<td>34</td>
<td>54</td>
<td>64</td>
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<tr>
<td>2010</td>
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<td>56</td>
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<tr>
<td>2013</td>
<td>30</td>
<td>38</td>
<td>58</td>
<td>68</td>
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</table>

Source: Bureau of Labor Statistics

Inflation, Interest Rates Still Indicate a Liquidity Trap

Effective Federal Funds Rate | Core PCE Inflation

Inflation, Interest Rates Still Indicate a Liquidity Trap
Lots of Good News

- Energy Production is helping to drive growth.
- Oil prices are falling.
- Something good is happening in health care.
- Government spending has stabilized. Fiscal pressure is relieved for many states and localities.
- Financial markets reacted well to tapering.
- Expanding employment will have positive spillovers, especially for wages and housing.
- Private business sitting on lots of cash. Non-financials wait for firmer expansion of demand.

Outlook Overview

<table>
<thead>
<tr>
<th>Real (Inflation-Adjusted) Quantities, Average Annual Growth Rates, Percent</th>
<th>12-13</th>
<th>13-14</th>
<th>14-15</th>
<th>15-16</th>
<th>16-17</th>
<th>17-20</th>
<th>20-30</th>
<th>30-40</th>
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<tbody>
<tr>
<td>Gross domestic product</td>
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<td>2.2</td>
<td>3.1</td>
<td>2.7</td>
<td>3.1</td>
<td>2.5</td>
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<td>2.7</td>
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<td>Nonresidential structures</td>
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<td>5.4</td>
<td>5.6</td>
<td>11.4</td>
<td>5.6</td>
<td>3.1</td>
<td>2.7</td>
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<tr>
<td>Equipment &amp; intangibles</td>
<td>4.1</td>
<td>7.1</td>
<td>6.4</td>
<td>4.5</td>
<td>6.6</td>
<td>2.0</td>
<td>3.5</td>
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<td>GDP deflator</td>
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### Outlook Overview

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<th>Supply (percent growth)</th>
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<th>14-15</th>
<th>15-16</th>
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<tr>
<td>Population</td>
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<td>0.7</td>
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<td>Labor force</td>
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<td>Employment</td>
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<td>0.7</td>
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<tr>
<td>Labor productivity</td>
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<td>1.6</td>
<td>1.8</td>
<td>1.6</td>
<td>1.3</td>
<td>1.4</td>
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<td>Potential GDP</td>
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<table>
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<tr>
<th>Year</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
<th>2020</th>
<th>2030</th>
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<tr>
<td>Unemployment Rate (%)</td>
<td>7.4</td>
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<td>Treasury Bills, 3-month</td>
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<td>0.3</td>
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<tr>
<td>Yield, 10 yr. Treasury bond</td>
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<td>3.3</td>
<td>3.8</td>
<td>4.2</td>
<td>4.7</td>
<td>4.8</td>
<td>5.0</td>
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</table>

### Household Debt Service Payments

(Percentage of Disposable Personal Income)

![Graph of Household Debt Service Payments](image)
Average Price of Regular Gasoline (Dollars per Gallon)

Motor vehicle sales are healthy
Housing starts inch upward

Fed gazing is like watching paint dry...

- Tapering is complete. Balance sheet raises questions but also an opportunity to add a monetary tool to the box.
- Next guessing game concerns first rate hike. If growth momentum continues, we will see an increase by July.
- Main economic threats from abroad comes through financial markets, not trade. Fed will be closely watching Eurozone and China.
- The biggest challenge now is implementing regulation under Dodd-Frank without squashing lending to small/risky businesses and consumers.
Fiscal Policy Is Now More Benign
Real Total Fed + S&L Spending After Recessions

Quarters After Recession Trough

1982q4 1991q1 2001q4 2009q2
**Employment Recovery after Recessions**

- 1982q4
- 1991q1
- 2001q4
- 2009q2

**Enhanced Oil Production is Permanent**

Domestic Crude Production, Million barrels per day

- AEO2014 high resource
- Inforum Fall 2014
- Inforum Spring 2014
- AEO2014 base
Health Care Expenditures Have Grown Slowly Since 2007

Why? Have We Bent the Curve?

- Recession (loss of income and job-base insurance)
- Significant increase in cost-Sharing
- Generic prescriptions
- Structural changes in private market (ACA and non ACA)
- Medicare/Medicaid Changes (independent of ACA)
- Medicare/Medicaid Changes (because of ACA)
- Coming ACA: Provider MFP Fix
So, the economy is poised to grow faster in 2015...

Risks

- Security: Middle East, Central Europe, West Africa
- Natural or man-made catastrophe.
- Economic weakness abroad, esp Europe and China.
- Dollar could strengthen sharply.
- Continued inequitable growth maybe unsustainable.
- Divided government creates uncertainty and gridlock.
- West coast port strike.
Rich Nation Growth Sluggish, China Decelerates

Annual percent change in Real GDP

<table>
<thead>
<tr>
<th>IMF Share 2013 (%)</th>
<th>10-11</th>
<th>11-12</th>
<th>12-13</th>
<th>13-14</th>
<th>14-15</th>
<th>15-16</th>
<th>16-17</th>
<th>17-20</th>
<th>20-25</th>
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<td>IMF (World)</td>
<td>100.0</td>
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<td>Inforum (Total Listed Countries)</td>
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<td>Italy</td>
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<td>-0.4</td>
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<td>1.7</td>
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<td>3.9</td>
<td>4.0</td>
<td>3.1</td>
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<td>China</td>
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<td>9.3</td>
<td>7.7</td>
<td>7.1</td>
<td>7.4</td>
<td>6.8</td>
<td>6.5</td>
<td>6.2</td>
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<tr>
<td>World Trade (B2005 US$)</td>
<td>13148</td>
<td>6.3</td>
<td>2.4</td>
<td>2.9</td>
<td>5.3</td>
<td>4.9</td>
<td>4.2</td>
<td>4.3</td>
<td>4.6</td>
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<tr>
<td>Oil demand (2005 = 100)</td>
<td>98</td>
<td>-0.3</td>
<td>0.3</td>
<td>2.3</td>
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<td>2.8</td>
<td>3.1</td>
<td>2.5</td>
<td>1.3</td>
</tr>
</tbody>
</table>

Sources: Inforum, OECD Economic Outlook, Consensus Forecasts, Blue Chip Economic Indicators, IMF WEO

New Exchange Rate Trajectory

Federal Reserve Broad Currency Index (100=2000)

Inforum Fall 2014
Dollar is 20% stronger by 2028

Inforum Fall 2013

Inforum Outlook Conference

December 11, 2014
**Exports are lower**

Real Exports of Manufacturing (in logs)

![Chart showing real exports of manufacturing over time, with Inforum Fall 2013 and Inforum Fall 2014 marked. The chart indicates that manufacturing exports are 20% lower by 2028.]

**Energy Revolution and Dutch disease**

Elevated energy production and net exports will increase the real exchange rate, reducing competitiveness of manufacturing.

Machinery (sectors 35 - 41)

Net Change to Gross Output 2020, High Export Case
(millions of 2005 dollars)

- **Direct Demand**: 6112
  - Domestic (4597)
  - Import (1515)

- **Indirect/Induced**: 2802
  - Domestic (1583)
  - Import (1219)

- **Exports**: -528
- **Gross Output**: 5652
  (4597-528+1583)

- **Employment**: Increase
  - Wages and Profits
  - Investment
Long Term Issues

- Potential GDP: How much hysteresis from the Great Recession? Can we reach “full” employment?
- Hysteresis - Intercept Change
- Secular Stagnation - Below Potential (Summers)
- Technological Stagnation - Slope Change and Demographics (Gordon)
- Factors:
  - Federal Debt – Do high rates slow growth?
  - Increasingly Unequal Income Distribution
  - Entrepreneurial Crisis
  - Political Dysfunction – Rent seeking and Olsonian Decline (great upheaval can reset society)

Growth: Are we in a new era of “secular stagnation.”


- Jorgenson, Gordon, Brynjolfsson, Glaeser, Phelps, Haltiwanger...
Potential GDP and GDP 1990-2025

Billions of 2009 dollars

Potential GDP, Dec. 2007
Potential GDP, Dec 2014
Current GDP forecast

Potential GDP and GDP 1990-2025

Potential GDP, Dec. 2007
Potential GDP, Dec 2014
Current GDP forecast

GDP Gaps: Did we permanently lose 6% of income?

For further discussion see: Aggregate Supply in the United States: Recent Developments and Implications for the Conduct of Monetary Policy, Reifschneider, et al. (FRB)
U.S. Income Distribution became skewed in the last thirty years.

Cumulative Growth in Before Tax Income (2010 dollars)

Especially in Education

Fraction of students completing college by income quartile and birth year

Does Income Inequality Discourage Growth?

- Stiglitz, Deaton, Solow, Saez, Podesta
- It appears that both Inequality and Immobility are rising.
- Potential Mechanisms:
  - Lower consumer spending
  - Leads to credit bubbles and crisis
  - Underinvestment in education and health
  - Government capture: Rent-seeking behavior
  - Reduce risk-taking and entrepreneurs

Further reading: Journal of Economic Perspectives—Vol 27, No. 3—Summer 2013

Debt Check! Federal Net and Gross Debt

Accrued Debt Held by the Public plus Trust Funds (09/30/14)

Source: U.S. Treasury Department and Inforum Calculations
...do not cover future obligations.
Federal Debt + Trust Funds + Unfunded Obligations

Tax Reform: How can we tax labor and capital less and consumption more?

- Reduce/Eliminate tax expenditures, especially:
  1. Convert health care premium income exclusion to tax credit (voucher). (~$160 billion in FY2010)
  2. Phase out mortgage interest deduction (~$110 billion in 2010).
- Use proceeds to lower and flatten rates.
- Lower Corporate tax rates (phase out eventually)
- Unify rates across earned, dividends, capital.
- Best time ever for Higher energy taxes/Carbon tax!
- National Sales (RD) or Value Added Tax.

Perspective: This is 6.3% of Cumulated Notional PV of GDP, 2013-2087
Source: U.S. Treasury Department and Inforum Calculations
Entitlement Reform: Social Security

- Increase cap on payroll taxes.
- Change COLA to better reflect inflation.
- Increase retirement age.
- Cover new S&L workers.
- Reduce benefits for richest, strengthen safety nets for poorest. (What is meant by “means-testing”?)
- Little sentiment for privatization of SS accounts.
- Politically implausible
- Since most boomers have insignificant savings, do these entitlement cuts make sense?

Longer term forecast (to 2040):

- Potential GDP growth ~ 2.3%
- Forecast assumes gradual rebalancing of private, government and external accounts.
- Manufacturing outlook is challenging (real exchange rate).
- Government services and transfers will expand. Health care spending (with/without reform) will dominant future of government spending and domestic production growth.
- All roads lead to tax reform. To pay for entitlements, education and infrastructure, government revenues will have to rise. How this is accomplished is important.
**Long term potential growth is almost 2.3%**

Difference in logs, 5-year moving average

**Current account deficit: soft landing**

Billions of dollars

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Inforum Economic Outlook  
December 11, 2014
Federal expenditures, revenues and deficit 
(CBO/CMS on expenditures, tax rate increase)

Federal Debt as percent of GDP 
(Debt held by the Public)