Assumptions Matter
C: Personal consumption is expected to advance moderately in 2012.

U.S. Real Personal Consumption Growth

Annualized percent change

Source: Census Bureau and Blue Chip Economic Indicators, February 2012

What is the Risk?
I: What will it take for a rebound in business and residential investment?

U.S. Real Private Fixed Investment

Index (2005=100)

Source: Bureau of Economic Analysis
G: What is the difference between federal, state, and local spending patterns?

U.S. Government Spending

Index (2005 = 100)

Source: Bureau of Economic Analysis
X-M: Will a weak dollar cut our trade deficit?

U.S. Real Net Exports of Goods and Services and Value of the Dollar

Source: Bureau of Economic Analysis, Federal Reserve Board of Governors, Blue Chip Economic Indicators
The Goal: Foster Maximum Employment and Stable Prices

Economic Projections of Federal Open Market Committee Members, Central Tendency, June 2011

<table>
<thead>
<tr>
<th></th>
<th>Longer Run</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>Real GDP Growth</td>
<td>2.3 to 2.6</td>
<td>2.2 to 2.7</td>
<td>2.8 to 3.2</td>
<td>3.3 to 4.0</td>
</tr>
<tr>
<td>Nov. 2011 proj.</td>
<td>2.4 to 2.7</td>
<td>2.5 to 2.9</td>
<td>3.0 to 3.5</td>
<td>3.0 to 3.9</td>
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<tr>
<td>Unemployment Rate</td>
<td>5.2 to 6.0</td>
<td>8.2 to 8.5</td>
<td>7.4 to 8.1</td>
<td>6.7 to 7.6</td>
</tr>
<tr>
<td>Nov. 2011 proj.</td>
<td>5.2 to 6.0</td>
<td>8.5 to 8.7</td>
<td>7.8 to 8.2</td>
<td>6.8 to 7.7</td>
</tr>
<tr>
<td>PCE Inflation</td>
<td>2.0</td>
<td>1.4 to 1.8</td>
<td>1.4 to 2.0</td>
<td>1.6 to 2.0</td>
</tr>
<tr>
<td>Nov. 2011 proj.</td>
<td>1.7 to 2.0</td>
<td>1.4 to 2.0</td>
<td>1.5 to 2.0</td>
<td>1.5 to 2.0</td>
</tr>
</tbody>
</table>

Source: Federal Reserve Board of Governors
When will interest rates turn higher?

Overview of Federal Open Market Committee (FOMC) Participants Assessments of Appropriate Monetary Policy (Appropriate Timing of Policy Firming)

Number of Participants

<table>
<thead>
<tr>
<th>Year</th>
<th>Number of Participants</th>
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</thead>
<tbody>
<tr>
<td>2012</td>
<td>3</td>
</tr>
<tr>
<td>2013</td>
<td>3</td>
</tr>
<tr>
<td>2014</td>
<td>5</td>
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<tr>
<td>2015</td>
<td>4</td>
</tr>
<tr>
<td>2016</td>
<td>2</td>
</tr>
</tbody>
</table>

Source: Federal Reserve Board of Governors
If Economists Use the Same Data and are Taught the Same Theory, Why Do they Come Up with Different Answers?
The Taylor Rule

Fed Funds Rate = Equilibrium Real Interest Rate + Inflation Rate + Deviation of Inflation from Target + Output Gap

\[ i_t = rr^* + p_t + \beta(p_t - p^*) + \gamma(y_t - y_t^*) \]

What Can Economists Debate in the Taylor Rule?

- Equilibrium real interest rate
- Inflation rate measure
- Inflation target
- Potential GDP
- Weights on inflation and output gap

http://www.kansascityfed.org/Publicat/EconRev/PDF/10q2Kahn.pdf
Despite the rules, there are challenges?

- There are many different specification.
  (House rules)

- Was the FOMC following a rule after 1999?

Taylor Rule Prescriptions

http://www.kansascityfed.org/Publicat/EconRev/PDF/10q2Kahn.pdf
The Balancing Act of Monetary Policy

Foundation based on the Phillips Curve

Sustainable Economic Growth

Price Stability
Is the Phillips Curve Dead or Alive?

[Graph showing Consumer Price Inflation - Less Food and Energy and Unemployment Rate from 1960 to 2010.]

Percent

- Consumer Price Inflation - Less Food and Energy
- Unemployment Rate

Federal Reserve Bank of Kansas City – Omaha Branch
Regional, Public, Community Affairs Division

www.kansascityfed.org/omaha
Local economies influence perspectives

Personal Income Gains

Unemployment Rate - 2011

Seriously Delinquent Mortgage Loans
(percent of all mortgage loans serviced, Q3 2011)

More than 8%
5% to 8%
0 to 5%

Source: Mortgage Bankers Association
Memories or Life Experiences
Influence Perspectives

**Federal Reserve Chairman Ben Bernanke**
Research on the Great Depression

**Former FRBKC President Thomas Hoenig**
Closed Banks in the 1980s
Dissent 8 times in 2010
The economic industry shapes perspectives.

Non-irrigated Cropland Values
(Percent change 2010:Q3 to 2011:Q3)

Source: Agricultural Finance Databook, FRBKC
Exports Double During WWI
Exports More than Double During WWII
Exports Double in 1970s
Exports Double Between 2006 and 2011

Audience Question

Doesn’t the Federal Reserve’s large balance sheet mean inflation is coming?
Inflation is based on money and velocity.

**Quantity Theory of Money**

\[ \text{Price} = \frac{\text{Money} \times \text{Velocity}}{\text{Quantity}} \]

**Definition of Inflation:**

Too much money \( M \uparrow \) chasing too few goods \( Q \downarrow \)

\( V \uparrow \)
The Monetary Base is not Money Supply

Growth in Monetary Aggregates

Index (Jan 2000=100)

Source: Federal Reserve Board of Governors
Banks are holding monetary base in excess reserves

When will inflation start?

- Banks start lending
- Consumers start spending
- Businesses start investing

In short, if excess reserves fall before the Fed balance sheet

Source: Federal Reserve Board of Governors
Conclusion

- Economic activity is expected to improve,
  - Inflation is expected to remain well-anchored,
  - the unemployment rate could remain high.
- Monetary policy is art, not science.
- In economics, assumptions matter.