Garden State Economic Forum: The Road Ahead

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The views expressed in this presentation are those of the author and do not necessarily represent the views of the Federal Reserve Bank of Philadelphia, the Federal Reserve System, or the Federal Open Market Committee.
Continue with “operation twist,” reinvesting in MBS, and forward guidance

November 2, 2011 FOMC Statement:

• To promote a stronger pace of economic recovery and to help ensure that inflation, over time, is at levels consistent with the dual mandate ... the Committee decided today to **continue its program to extend the average maturity of its securities**...The Committee is ... **reinvesting** principal payments from its holdings of agency debt and agency mortgage-backed securities **in agency mortgage-backed securities**.

• The Committee will maintain the target range for the **federal funds rate at 0 to 1/4 percent** and currently anticipates that economic conditions – including low rates of resource utilization and a subdued outlook for inflation over the medium run – are likely to warrant **exceptionally low levels for the federal funds rate for at least through mid-2013**.
“Whereas deeds never done before are what occupy my mind.”

Wotan

Die Walküre, Act Two, Scene One
During and after the crisis, the Fed has taken unprecedented policy actions to ease short-term funding pressures, contain systemic fallout, and support economic recovery.

**Standing Facilities**
- Longer maturity Discount Window loans
- Primary Dealer Credit Facility

**Term Lending Facilities**
- Term Auction Facility (TAF)
- FX Swaps with other central banks

**Targeted Credit Facilities**
- Asset-Backed Commercial Paper Money Market Mutual Fund Lending Facility (AMLF)
- Commercial Paper Funding Facility (CPFF)
- Money Market Investor Funding Facility (MMIFF)
- Term Asset-Backed Securities Loan Facility (TALF)

**Programs to Individual Firms to Contain Systemic Fallout**
- Bear Stearns, AIG, Citigroup

**Programs Focused on Longer-Term Asset Prices**
- Purchases of the direct obligations of and MBS guaranteed by the housing-related GSEs
- Purchases of longer-term Treasury securities
- Maturity extension program = “Operation Twist”
- Forward guidance
The asset purchases have tripled the size of the Fed’s balance sheet.

Weekly data: Last point plotted is November 2, 2011.
For almost three years, the Fed has kept the fed funds rate at essentially zero and it expects the funds rate to remain there at least through mid-2013. Interest rates are very low across the maturity spectrum.
Nonconventional monetary policy works on expectations and the term premium

\[
\text{Long-term interest rate} = \text{Average of current and expected future short-term interest rate} + \text{Term premium}
\]

\[
\text{Real rate} = \text{Nominal rate} - \text{Expected inflation}
\]

Nonconventional monetary policy at zero bound

To lower real borrowing rates:

- Lower expected future short-term rates
- Lower the term premium on long rates
- Increase inflation expectations if too low
With the fed funds rate at zero, the Fed will need to consider other tools if it wants to ease policy further.

\[ \text{Long-term interest rate} = \text{Average of current and expected future short-term interest rate} + \text{Term premium} \]

\[ \text{Real rate} = \text{Nominal rate} - \text{Expected inflation} \]

1. **Forward guidance**: Communication and commitment
   - Announce commitment to keep rates low for specified period of time or until specified event occurs

2. **Quantitative easing**
   - Add more reserves to the banking system than needed to keep \( \text{ff rate} = 0 \) by buying assets
   - Use composition of the Fed’s balance sheet to target borrowing rates in particular markets (e.g., mortgages)

3. **“Operation twist”**: Buy longer-term Treasury securities and sell shorter-term Treasuries
   - Direct effect on long rates; might put downward pressure on term premium by increasing total demand for long-term issues, and reducing supply available to the public

4. **Target inflation at a higher level**

5. **Lower the rate that the Fed is paying banks on their reserves**
FOMC forecasters expect moderate growth and slow declines in unemployment

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<tr>
<th></th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
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<tr>
<td><strong>Real GDP Growth</strong></td>
<td><strong>1.6 to 1.7%</strong></td>
<td><strong>2.5 to 2.9%</strong></td>
<td><strong>3.0 to 3.5%</strong></td>
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<td>(Q4/Q4 growth)</td>
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<td><strong>Unemployment Rate</strong></td>
<td><strong>9.0 to 9.1%</strong></td>
<td><strong>8.5 to 8.7%</strong></td>
<td><strong>7.8 to 8.2%</strong></td>
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<td>(Q4)</td>
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<td><strong>PCE Inflation</strong></td>
<td><strong>2.7 to 2.9%</strong></td>
<td><strong>1.4 to 2.0%</strong></td>
<td><strong>1.5 to 2.0%</strong></td>
</tr>
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<td>(Q4/Q4 growth)</td>
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The FOMC has been revising down the 2011 forecast throughout the year.

Real GDP growth, 4Q/4Q

Evolution of 2011 FOMC projections

Source: FOMC Minutes and Press Conference
The FOMC continues to expect growth to strengthen in 2012 but it will be weaker than in earlier projections.

Source: FOMC Minutes and Press Conference
Unemployment rates are high

Civilian unemployment rate

Percent

US: 9.0
PA: 8.3
NJ: 9.2
DE: 8.1
Three States: 8.6

Monthly data: Last point plotted is October 2011 for U.S. and September 2011 for the states
Tell your kids to stay in school!

Civilian unemployment rate by educational attainment

Percent

Less than High School Diploma
High School Diploma, No College
Some College
Bachelors degree and higher

Monthly data: Last point plotted is October 2011
Private sector job growth in the U.S. is now tracking with the 1991 “jobless” recovery – but this recession was much sharper

Cumulative % change in private nonfarm payrolls since recession trough

U.S. private payroll employment

Avg of 8 recoveries, 1949-1982

Months Since Recovery Began

Trough
Mar 1991
Nov 2001
Jun 2009

2009

1991

2001
Unlike prior recessions, government jobs are being cut.

Cumulative % change in government nonfarm payrolls since recession trough.

Government payroll employment

Avg of 8 recoveries, 1949-1982

Census workers => +410K in May 2010

Trough Mar 1991
Nov 2001
Jun 2009

Months Since Recovery Began
Total employment growth in the nation is weaker than in the 1991 recovery

Cumulative % change in nonfarm payrolls since recession trough

-12 -8 -4 0 4 8 12 16 20 24 28 32 36

Months Since Recovery Began

Trough
Mar 1991
Nov 2001
Jun 2009

U.S. payroll employment

Avg of 8 recoveries,
1949-1982

2009

2019

2001

1991
Private sector jobs in New Jersey are no higher than at the start of the recovery – but this is better performance than in the past two jobless recoveries.

Cumulative % change in private nonfarm payrolls since recession trough

Months Since Recovery Began

Trough
Mar 1991
Nov 2001
Jun 2009

NJ private payroll employment

2009
2001
1991
Government job cuts are significant in New Jersey

Cumulative % change in government nonfarm payrolls since recession trough

NJ Government payroll employment

Census workers => +11K in May 2010

Months Since Recovery Began


2001

1991

2009
Total employment in NJ is below its level at the start of the recovery

Cumulative % change in nonfarm payrolls since recession trough

NJ payroll employment

Avg of 8 recoveries, 1949-1982

Months Since Recovery Began

Trough
Mar 1991
Nov 2001
Jun 2009
There has been only slow progress on recovering lost jobs

% of jobs lost from peak to trough and
% of lost jobs regained since trough

Incorporates September 2011 data
Payrolls are nearly 5 percent below their peak, a net loss of over 6 million jobs. At the current pace of job creation it will take 4 years to make up those losses. If job creation speeds up to what it was earlier this year, it will take 2-1/2 years.
Housing is considerably weaker in this recovery than in earlier ones.

Cumulative % change in 3-mo moving average of housing starts since start of recovery.

-20 0 20 40 60 80

Trough
Mar 1991
Nov 2001
Jun 2009

Avg of 5 recoveries, 1961-1982

2009

2001

1991
The sovereign debt problems in Europe are a risk to the forecast. European banks, which hold sovereign debt, are under stress.
The U.S. is running unsustainably large deficits

The Federal Budget
FY 2010

Source: Congressional Budget Office
Federal outlays were 24% of GDP in 2010. A large share of government expenditures are on defense, Social Security, Medicare, and Medicaid.

### 2010 Federal Outlays

- **Medicare & Medicaid = 23%**
- **Defense = 20%**
- **Safety Net Programs = 13%**
- **Social Security = 20%**
- **Net Interest on Debt = 6%**
- **Other = 19%:**
  - Science and Medical Research = 2%
  - Transportation & Infrastructure = 3%
  - Education = 3%
  - All Other = 11%

Source: Haver Analytics/Congressional Budget Office

Items do not sum to 100 due to rounding.
Philadelphia Fed research shows that access to major research universities helps determine the location of innovative activity.

New York R&D Clusters
