Economic Developments

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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.
In November, the FOMC announced it would continue “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.
“Operation Twist” became a popular search term on Google

The FOMC announced the maturity extension program, aka “Operation Twist” on September 21, 2011:

By the end of June 2012, buy $400 billion of Treasuries with remaining maturities of 6 years to 30 years and sell an equal amount of Treasuries with remaining maturities of 3 years or less.

Source: Google Insights for Search
“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.
Traditional monetary policy focuses on the overnight rate of interest

- Fed targets the overnight **fed funds rate**
- Enforces the target by buying and selling securities via open market operations:
  - Fed buys Treasury bills
    - Bank reserves rise
    - Short-term interest rates fall
    - Downward pressure on long-term interest rates, since ...

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

- Consumer and business spending increases
Nonconventional monetary policy works on expectations and the term premium

Long-term interest rate = Average of current and expected future short-term interest rate + Term premium

Real rate = Nominal rate – 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
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.

Weekly data: Last point plotted is November 4, 2011
With the fed funds rate at zero, the Fed will need to consider other tools if it wants to ease policy further.

*Long-term interest rate = Average of current and expected future short-term interest rate + Term premium*

*Real rate = Nominal rate – 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 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

Central tendency of Fed Governors and Presidents
November 2011 Forecasts

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

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.

Growth picked up in the third quarter as temporary factors restraining growth in the first half began to recede.
Although labor markets are still weak, recent employment reports have been a bit better.
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

Monthly data: Last point plotted is October 2011
Private sector job growth in the U.S. is tracking with the 1991 “jobless” recovery. But this recession was much sharper.
Unlike prior recessions, government jobs are being cut

Cumulative % change in government nonfarm payrolls since recession trough

U.S. government payroll employment

Avg of 8 recoveries, 1949-1982

Census workers => +410K in May 2010

Months Since Recovery Began

Trough Mar 1991
Nov 2001
Jun 2009
Total employment growth in the nation is weaker than in the 1991 recovery

Cumulative % change in nonfarm payrolls since recession trough

-4 -3 -2 -1 0 1 2 3 4 5 6 7 8 9 10

Months Since Recovery Began

Trough Mar 1991
Nov 2001
Jun 2009

U.S. payroll employment

Avg of 8 recoveries, 1949-1982

2009

1991

2001
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

- **2009**
- **2001**
- **1991**

Trough:
- Mar 1991
- Nov 2001
- Jun 2009
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

Trough
Mar 1991
Nov 2001
Jun 2009

Months Since Recovery Began

2001
1991
2009
Total employment in New Jersey 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

2001
Payroll employment growth in Pennsylvania is performing better than at the same stage in the last two recoveries.

Cumulative % change in nonfarm payrolls since recession trough

PA payroll employment

Avg of 8 recoveries, 1949-1982

Months Since Recovery Began

Trough
Mar 1991
Nov 2001
Jun 2009

2009

2001

1991
In Delaware, job growth is underperforming compared to the same stage in the past two recoveries.

Cumulative % change in nonfarm payrolls since recession trough

DE payroll employment

Avg of 8 recoveries, 1949-1982

Months Since Recovery Began

Trough
Mar 1991
Nov 2001
Jun 2009

FEDERAL RESERVE BANK
OF PHILADELPHIA
Pennsylvania is doing better than the nation, New Jersey, and Delaware in terms of recovering lost jobs.

<table>
<thead>
<tr>
<th></th>
<th>% of jobs lost from peak to trough and</th>
<th>% of lost jobs regained since trough</th>
</tr>
</thead>
<tbody>
<tr>
<td>US</td>
<td>6.3%</td>
<td>25.0%</td>
</tr>
<tr>
<td>PA</td>
<td>4.4%</td>
<td>39.4%</td>
</tr>
<tr>
<td>NJ</td>
<td>6.5%</td>
<td>11.7%</td>
</tr>
<tr>
<td>DE</td>
<td>7.9%</td>
<td>6.0%</td>
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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.
Personal income growth has weakened over the past three months.

Year over year growth in personal income and real disposable income (3-month moving average)

Percent

Jan 07 Jul 07 Jan 08 Jul 08 Jan 09 Jul 09 Jan 10 Jul 10 Jan 11 Jul 11

Monthly data: Last point plotted is September 2011
Retail sales have held up, despite weak income growth and low consumer confidence.

Year over year growth in nominal retail sales

Year over year growth in retail sales, excluding autos, gas stations, and building materials stores

Monthly data: Last point plotted is October for retail sales and September for sales excl. autos, gas, and building materials.
Household net worth continues to recover after the sharp contraction in 2008

Source: FRB Flow of Funds, annual data for 1990-2010; 2011Q2 is year-to-date, annualized
Households’ debt service burdens continue to fall. This partly reflects low interest rates.

Percent Total financial obligations to disposable personal income*

Quarterly data: Last point plotted is 2011 Q2
Source: Federal Reserve Board

*Includes payments on mortgage debt, consumer debt, auto leases, rental properties, homeowners insurance, and property taxes.
Household debt-to-disposable income is falling

Quarterly data: Last point plotted is 2011 Q2
Business investment in equipment and software has been one of the economy’s bright spots

Billions of $

Monthly data: Last point plotted is September 2011
Regional manufacturing activity expanded at a modest pace in November and expectations noticeably improved.

*Business Outlook Survey: General Activity Index*

Index represents percentage of respondents reporting an increase minus percentage reporting a decrease. Monthly data: Last point plotted is November 2011.
The housing sector remains weak but has stabilized

Monthly data: Last point plotted is September 2011
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

Avg of 5 recoveries, 1961-1982

Months Since Recovery Began

Trough
Mar 1991
Nov 2001
Jun 2009
After stabilizing last year, house prices are falling. They are expected to show little or no increase over the year.

Quarterly data: Last point plotted is 2011Q3 for Median Existing and 2011Q2 for Case-Shiller and FHFA.
The recent decline in house prices reflects sales of distressed properties.
House prices are firming in the western and central portions of Pennsylvania but continue to fall elsewhere in the district.

One-Year Change in FHFA House Price Index For Metro Areas (as of 2011 Q2)

Total inflation moved down in October but remains at a high level

Monthly data: Last month plotted is October 2011
Financial markets have been extremely volatile as investors focus on the fiscal situation in Europe.
The sovereign debt problems in Europe are a risk to the forecast. European banks, which hold sovereign debt, are under stress.
The Congressional super committee’s deadline to agree on a plan to cut the federal budget deficit is next Wednesday.

The Federal Budget
FY 2010

Receipts

- Personal Income Taxes
- Corporate Income Taxes
- Social Insurance Taxes
- Excise Taxes

Outlays

- Nondefense Discretionary
- Defense
- Other Mandatory
- Social Security
- Health Care
- Net Interest

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.