U.S. Monetary Policy and the National Economic Outlook

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OVERVIEW

1. Current economic situation
2. National economic outlook and forecast
3. Goals and tools of U.S. monetary policy
4. Recent monetary policy actions:
   a. Large-scale asset purchases (LSAPs or QE)
   b. Forward policy guidance

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• Underlying growth trend remains moderate, and improvement is expected in 2013.

• There is improvement in the labor market, but it has been slow over the past two years and unemployment remains elevated.

• Inflation has been subdued and is expected to remain below the Fed’s 2% target over the next few years.
GAP BETWEEN ACTUAL AND POTENTIAL REAL (INFLATION ADJUSTED) GDP REMAINS WIDE (AROUND $800 BILLION)
RECOVERY LAGS FAR BELOW THOSE OF RECESSIONS OVER THE PAST 40 YEARS

FRBSF Forecast Relative to Previous Recessions

GDP (Indexed to 100 at pre-recession peak)

Source: BEA, FRBSF

4/10/2013
CURRENT NATIONAL ECONOMIC SITUATION: WHY HAS RECOVERY BEEN STUBBORNLY SLOW?

Factors restraining growth:

• Fiscal restraint in the U.S.
• Policy uncertainty.
• Tight credit conditions.
• Continuing deleveraging by households.
• Slower growth abroad.

Good news for 2013:

• Most headwinds have eased.
• Monetary policy continues to help.
LENDING HAS BEEN EXPANDING, BUT LOAN GROWTH VARIES BY CATEGORY (AUTO LOANS ARE UP)
LOW MORTGAGE RATES HAVE HELPED U.S. HOUSE PRICES TO BEGIN TO APPRECIATE AGAIN

House Price Changes
Year-over-year percent change

S&P Case-Shiller Home Price Index

NAR Median Home Sales Price

Source: Standard & Poor's, National Association of Realtors

4/10/2013
RECOVERING RESIDENTIAL REAL ESTATE VALUES AND STOCK MARKETS BOOST HOUSEHOLDS’ NET WORTH

Household Wealth
As a multiple of disposable income

Source: Federal Reserve Board - Flow of Funds Report
WITH LOW LOAN RATES BOOSTING VEHICLE SALES, AUTOS ARE PROVIDING STRENGTH

**Light Vehicle Sales**
Seasonally adjusted annual rate

![Graph showing Light Vehicle Sales from 2000 to 2012. The graph indicates a decline in sales around 2008, with a significant increase starting around 2011. The source is BEA and the date is 4/10/2013.](Graph.png)
NATIONAL LABOR MARKET IS IMPROVING SLOWLY, BUT UNEMPLOYMENT REMAINS ELEVATED

Unemployment Rate Comparison
In percent; seasonally adjusted

"Alternative" Unemployment Rate (U-6)
"Natural Rate" (NAIRU)
Unemployment Rate
Natural Rate of Unemployment from SPF Survey

Source: Bureau of Labor Statistics, Congressional Budget Office
SPF = Survey of Professional Forecasters, FRB Philadelphia.
NO SIGNS OF CONTAGION FROM CYPRUS...
INFLATION EXPECTATIONS REMAIN STABLE

TIPS Implied Inflation Compensation
Daily; Adjusted for Indexation Lag

5 - 10 Years Ahead

Next Five Years

04/09

Percent


-2 -1 0 1 2 3 4
A National Economic Forecast
Prepared by the FRBSF Staff
(available monthly, except August)

Source: FedViews, March 14, 2013

NATIONAL ECONOMIC OUTLOOK:
FRBSF PROJECTIONS FOR REAL GDP (3-14-2013)

Forecast includes sequestration drag

GDP Growth: Actual and FRBSF Forecast
Quarterly observations; seasonally adj; annualized growth rate

Source: Bureau of Economic Analysis and FRBSF staff

NATIONAL ECONOMIC OUTLOOK:
FRBSF PROJECTIONS FOR UNEMPLOYMENT RATE (3-14-2013)

Unemployment rate declining very slowly

Unemployment rate
Monthly observations; forecast is quarterly average

Source: Bureau of Labor Statistics and FRBSF staff

Feb 7.7
FRBSF forecast

Inflation remains subdued

PCE = Personal Consumption Expenditures

Source: Bureau of Economic Analysis and FRBSF staff

Moderate real GDP growth for 2013 (about 2.4%) improves to 3.2% 2014

Unemployment rate will fall gradually to about 7.6% by the end of 2013 and remain above the 6.5% “Policy Threshold” until mid-2015

Inflation to come in below the Fed’s 2% target and is expected to remain at the same level in 2014
Uncertainty around the projection for economic activity is considered to be about “average.”
- The balance of risks to growth is to the downside:
  - Possibility of more severe tightening in U.S. fiscal policy than expected;
  - Deterioration of economic and financial conditions in Europe.

Uncertainty around the inflation projection “about average.”
- Risks to the inflation outlook is “roughly balanced.”

Monetary Policy

Federal Reserve Board
Washington, D.C.
Congress has set these two monetary policy goals for the Federal Reserve:

1) Promote maximum sustainable output and employment

2) Promote stable prices

Statement of FOMC’s longer-run goals and policy strategy (Jan 2013)
- Inflation target of 2 percent
- Estimates of the longer-run normal rate of unemployment with a central tendency of 5.2 to 6 percent

TOOLS FOR ACHIEVING INTERMEDIATE POLICY

**OBJECTIVES**

**TOOLS**

**Interest Rate Policies:**

- **Open market operations** (conv.) used in conjunction with paying interest on reserves
- **Large-scale asset purchases** (unconv.)
- **Communications**
  - Transparency
  - Forward guidance

**Providing Liquidity:**

- **Discount window** (conv.)
- **New credit facilities** (unconv.)

**OBJECTIVES**

- Target the overnight federal funds rate
- Affect long-term rates more directly
- Affect short-term and long-term rates
- Provide liquidity to depository institutions
- Provide liquidity to the financial system
“CONVENTIONAL” POLICY RULE: AT THE DEPTH OF THE RECESSION, WITH INFLATION FALLING AND THE UNEMPLOYMENT RATE AROUND 10%, A ZERO FED FUNDS RATE TARGET WAS NOT LOW ENOUGH

“Implied” Fed Funds Target Rate

In percent; quarterly aggregation

Fed Funds Target Rate

Rule = 2.1 + (1.3 x Inflation) - (2.0 x Unemp. Gap)

monetary policy funds rate shortfall

"Rule" Target Rate

Source: BEA, BLS, CBO, FRBSF

4/10/2013
Long-term interest rates are determined by:

- Short-term interest rate
- Expected short-term interest rates
- Term premium (compensation investors require to hold assets for longer periods of time instead of holding a series of short-term instruments)
  - affected by supply of long-term securities available to the public
CONVENTIONAL TOOLS OF MONETARY POLICY: TARGET FEDERAL FUNDS RATE (FEEDS THROUGH TO LONGER-TERM RATES)
Unconventional monetary policy actions increased the size and changed the composition of the Federal Reserve balance sheet.

Assets and Liabilities of the Federal Reserve

- **Assets**
  - Mortgage-Backed Securities
  - Federal Agency Obligations
  - US Treasury Securities

- **Liabilities**
  - Currency in Circulation
  - Reserve Balances
  - Other Liabilities
  - Treasury Supplementary Financing Program

Source: Federal Reserve Board

3/25/2013
ESTIMATED EFFECTS OF RECENT POLICY ACTIONS: LARGE-SCALE ASSET PURCHASES

- **QE1/LSAP1**: $1.7 trillion purchases of Treasury and agency securities reduced yield on 10-year Treasury securities by between 40 and 110 basis points.


- **Maturity Extension Program (MEP)**: Likely similar to LSAP2

- **QE3/LSAP3**: $40B MBS & $45B long-term Treasuries each month. More challenging to estimate because it is open ended; had a large impact effect on MBS rates.

- Effects on real economy are more difficult to estimate
FORWARD GUIDANCE FOR THE FEDERAL FUNDS RATE: INFORMATION ABOUT EXPECTED “LIFTOFF DATE”

• 08/11: “mid-2013”
• 01/12: “late 2014”
• 09/12: “mid-2015”
• 12/12: calendar date-based guidance replaced with numerical thresholds
Exceptionally low range for the federal funds rate will be appropriate for at least as long as:

1. The unemployment rate remains above 6-1/2 percent
2. Inflation between one and two years ahead is projected to be no more than a half percentage point above the Committee’s 2 percent longer-run goal, and
3. Longer-term inflation expectations continue to be well anchored

Threshold values improve the effectiveness of forward guidance: “...allows the public to adjust its expectations of future Fed policy based on its view of the economic outlook.”
FORWARD GUIDANCE FOR THE FEDERAL FUNDS TARGET RATE: “LIFTOFF” EXPECTED IN 2015

March 2013 Meeting

- Appropriate timing of policy firming

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FORWARD GUIDANCE FOR THE FEDERAL FUNDS TARGET RATE: “LIFTOFF” EXPECTED IN 2015

Appropriate Pace of Policy Firming

Target Federal Funds Rate at Year-End

<table>
<thead>
<tr>
<th>Year</th>
<th>Rate (Percent)</th>
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<tbody>
<tr>
<td>2012</td>
<td>0.0</td>
</tr>
<tr>
<td>2013</td>
<td>1.0</td>
</tr>
<tr>
<td>2014</td>
<td>2.0</td>
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<tr>
<td>2015</td>
<td>3.0</td>
</tr>
<tr>
<td>Longer run</td>
<td>6.0</td>
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SUMMARY

• **National Economy:**
  – Moderate growth in 2013 and improving in 2014.
  – Gradual decline in the unemployment rate.
  – Inflation to remain below the Federal Reserve’s target of 2% over the next few years.

• **Monetary Policy:** Against a macroeconomic backdrop that includes high unemployment and subdued inflation, the FOMC will maintain its highly accommodative policy.