FRBNY BLACKBOOK

RESEARCH AND STATISTICS GROUP

FOMC Background Material

December 2011

CONFIDENTIAL (FR) Class II FOMC

FRBNY BLACKBOOK

December 2011

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EXHIBITS

EXHIBIT OVERVIEW

1. Policy Recommendation and Rationale

The data released over the inter-meeting period has been roughly in line with our outlook and suggests that the recovery is continuing, albeit still at a relatively slow pace. Consequently, the forecasts for real activity and inflation have not changed much since the last FOMC meeting. The decline in unemployment in November was larger than suggested by other indicators, but the November labor market report did not substantially alter our view of the labor market since half of the unemployment decline was driven by a fall in labor force participation. Our forecasts for real GDP growth are 2.6 and 3.4 percent (Q4/Q4) for 2012 and 2013, respectively. On the inflation front, the recent data suggests that core inflation may be back to the levels prevailing before the commodity price-driven surge—which is consistent with our forecasts over the past few months. Currently, our forecasts for core PCE inflation are 1.3 and 1.5 percent (Q4/Q4) for 2012 and 2013, respectively.

Although the risks for the US economy associated with the European sovereign debt crisis has not risen much since the October Blackbook, they remain significant. Over the first part of the intermeeting period, dollar funding conditions for European financial institutions worsened notably, with potential consequences for domestic credit markets. In response, there were coordinated actions among major central banks to reduce the cost of currency swap arrangements as well as allow for expansion of those arrangements. In light of the continued risks to the financial system, we recommend that the FOMC reinforce its commitment to provide liquidity to US financial institutions if there is a deterioration of conditions in domestic funding markets. The risks arising from the European crisis also entail a higher probability of a deep recession in Europe and a drastic depreciation of the euro, both of which would have a substantial negative impact on the US economy. At the same time, domestic developments indicate that the likelihood of an incipient recession in the US has decreased somewhat. As a consequence, the already considerable uncertainty around the central forecast has increased modestly while the overall balance of risks is unchanged and risks remain skewed to the downside.

Under the central forecast, inflation is projected to be below our view of the longer-run value consistent with the price stability mandate while unemployment remains well above current estimates of its long run equilibrium and is forecast to stay so for at least two more years. Therefore, we believe that further policy accommodation is needed. Such accommodation can be accomplished with two complementary tools. First, the FOMC could clarify and make more explicit its state-contingent commitment to keep the policy rate at exceptionally low levels for longer than markets currently expect. Second, the FOMC could support the guidance on future policy rates with an expansion of the Federal Reserve's balance sheet, implemented at least in part through purchases of MBS.

In terms of communication, we strongly believe that a clear formulation of the FOMC objectives would be very helpful in the current circumstances. Given the formulation of those objectives, the state-contingent commitment to keep rates lower for longer than markets currently expect could be communicated in the statement through thresholds for unemployment and inflation, along the lines suggested in a recent speech by President Evans and further elaborated in the FRBNY memo by Giannoni and Sbordone. Specifically, the FOMC could communicate that it intends to maintain the current target range for the federal funds rate and the current expected path of the Federal Reserve's balance sheet *at least until* the unemployment gap is lower than 1.5 percentage points, provided that inflation projections for the medium term remain below 3.0%, and long-term inflation expectations remain well-anchored. This approach to communication is to some extent robust to mistaken estimates of the long-run sustainable unemployment rate and the unemployment gap: incorrect estimates of the gap would lead to correlated inflation forecast errors, and hence to an eventual reassessment of the gap itself. In addition, even if policymakers did not reassess their estimates of the unemployment gap, the inflation threshold would be a safeguard against excessive policy accommodation.

Furthermore, we believe that publishing the FFR forecasts—and explaining the link between these forecasts and those for unemployment and inflation—would provide additional clarity to a state-contingent commitment by providing more information about how policymakers respond to the economic environment. In addition, as the Fed's balance sheet is another instrument of monetary policy, publication of the FOMC forecasts for the balance sheet alongside those of the FFR may help in communicating the FOMC reaction function for both instruments. Although providing individual forecasts of the policy instruments would be helpful, we believe that such steps would be even more powerful in steering market expectations if the forecasts for the policy instruments were “owned” by the Committee, rather than simply reflect the range of views of its participants.

Lastly, given the constraints to policy associated with the zero nominal lower bound, a severe negative outcome of the European sovereign debt crisis may throw the US economy into a severe adverse feedback loop, where depressed expectations amplify the effect of the external shock. To alleviate the risk of falling into such an expectation trap, the FOMC may want to provide some guidance about its policy response to such contingency. This could be done through the statement or the minutes or, if the FOMC were to show the policy rate path (and possibly the balance sheet path) in its projections, by complementing those paths with the expected alternative path under a European crisis scenario.

2. Evolution of Outlook and Risks

2.1 Central Forecast

From a very sluggish 0.8% (annual rate) over the first half of 2011, growth of real GDP rose to 2.0% in 2011Q3 and, at this writing, is expected to increase to around 3 ½% to 3 ¾% in the fourth quarter. With energy prices now falling, growth of real consumer spending has begun to recover and will likely be around 2 ½% (annual rate) for the entire second half versus 1.4% over the first half. Also contributing is stronger growth of business fixed investment, a stronger growth contribution from net exports, and less drag from the government sector.

Despite the stronger growth of output, average monthly gains of private payroll employment for the second half of 2011 are running around 140,000, below the 165,000 per month over the first half of the year. The reason for this is a pronounced increase of the rate of productivity growth over the second half (to an annual rate of around 2 ¾%) following a modest decline of output per hour over the first half of the year.

Even though the pace of employment growth remains tepid, the unemployment rate fell a full 0.4 percentage points in November, due in part to a 0.2 percentage point decline of the labor force participation rate to a very low 64.0%. Total unemployment went down by 594,000, the consequence of a drop in the labor force of 315,000 (53% of the decline in total unemployment) and an increase in employment of 278,000. (On a payroll-concept basis, the increase of employment in November as measured by the household survey was nearly 500,000.) If the labor force remained unchanged at its October level, the unemployment rate would have been 8.8% instead of 8.6%. The decline of the unemployment rate in November was particularly pronounced for prime-age male workers, for whom the unemployment rate decreased from 8.5% to 7.7%. Another bit of encouraging news in the November employment report is that the employment-to-population ratio increased to 58.5% from 58.4% in October, continuing a string of 0.1 percentage point increases each month since July. Despite these improvements, the labor market continues to be characterized as having substantial slack. Labor's share of national income has declined steadily through the first three quarters of 2011 and looks to be declining again in the fourth quarter.

Both total and core inflation have stabilized in the last few months after rising notably since the fall of 2010. The 12-month change in the PCE price index was 2.7% in October compared to a peak of 3% in September. The 12-month change in the core PCE price index was 1.7% in October, the same as in August. At a three month horizon, the annualized increase of the core PCE deflator has slowed to 1.0% in October from 2.5% in July. Most available measures of underlying trend inflation are also indicating that it is stabilizing to down slightly.

Conditioning assumptions. Our estimate of potential GDP growth is around 2 ¼%, having been lowered from around 2 ½% based on the revised NIPA data that was released at the end of July. The Board staff estimate of potential for 2011 has been reduced to 1.7% from 2.1%, based on the larger than expected decline of the unemployment rate in the fourth quarter. For 2012 and 2013 the Board staff estimates of potential have been lowered to 2.0% and 2.1%, respectively, from 2.1% and 2.2%. These reductions are based on a somewhat lower path of business investment spending and of multifactor productivity growth.

We expect the lower degree of inflation persistence evident since the early 1990s to continue. This assumption is in contrast to the greater degree of inflation persistence assumed in recent Board staff forecasts. In our central scenario, inflation expectations remain well anchored. This assumption is central to our projection of a gradual rise of core inflation back toward the midpoint of the FOMC's objective for core PCE inflation of 1.5% to 2.0%.

In this forecast round there has been a significant downward revision of projected global growth stemming from the ongoing sovereign debt crisis in the Euro Area. But the Board staff foresees a longer and deeper recession in the Euro Area with more significant spillover effects around the globe. The FRBNY outlook for foreign real GDP growth in 2011 has been lowered to 2.5% (Q4/Q4 on a GDP-weighted basis) from 2.7% in October. Projected foreign real GDP growth for 2012 has been revised to 2.6% from 2.9% and, in 2013, to 2.9% from 3.2%. The Board staff projection for 2011 has been reduced to 2.6% from 2.8%, and for 2012 is 1.8%, down from 2.6%. For 2013 the Tealbook forecast anticipates foreign growth of 2.6%, down from 3.2% in October.

Also reflecting intermeeting developments, the Board's assumed path of the nominal exchange value of the dollar for 2011 has been changed to 0.1% from -1.0% in October. The assumed decline in 2012 is 0.6% versus 2.3%. For 2013 a decline of 1.8% is anticipated versus 1.2% in the October Tealbook. Our assumed path of the nominal exchange rate is a decline of 1.0% in 2011, versus 2.2% in the last Blackbook, and 1.5% in 2012 versus 1.8% in October. For 2013 we assume a decline of 1.5% versus 1.8% in October.

Our projected path of WTI oil prices, based on recent futures quotes, has been raised by $8.50 per barrel for the end of 2012 (to $96.50 per barrel) and by $4.50 per barrel by the end of 2013 (to $93). In contrast, the Board assumes $99 per barrel for 2012Q4, $5 per barrel higher than in October, and $95 per barrel for 2013Q4, $1 per barrel lower than in October. The Board's projected path is somewhat lower than recent future quotes due to the fact that they expect somewhat weaker growth of global GDP than in the consensus forecast. (Note that while the WTI price is still below the Brent price, the difference has narrowed considerably in recent weeks following an announcement in mid November to reverse the flow of a key pipeline running between the Gulf Coast and Cushing, Oklahoma.)

Our standard practice has been to adopt the same fiscal assumptions as in the Tealbook. However, in this forecast round we have decided to retain our assumption that the payroll tax cut and emergency unemployment benefits will not be extended for 2012 whereas the Board staff has assumed that they will. As a result, the Tealbook forecast for 2012 has considerably less fiscal drag in 2012 than was the case in October, while the forecast for 2013 has more. Specifically, for 2012 the Board's fiscal impulse measure suggests a drag on growth of about ¼ percentage point, down from a full percentage point in October. In contrast, the fiscal impulse measure for 2013 is now -1.1 percentage points versus 0.8 percentage point in October.

We continue to adopt the Tealbook assumptions regarding equity and home prices. While equity prices are modestly higher than assumed in the October Tealbook, the assumed level at the end of 2012 is about 3% lower and at the end of 2013 is about 2% lower. The rationale for this downward revision is that the situation in the Euro Area is likely to keep the equity risk premium higher than was assumed in October. Finally, with the October reading of the CoreLogic national home price index coming in somewhat below expectations, the path of home prices over the forecast horizon has been lowered slightly. That index is now assumed to decline by 1% in 2012 and then be flat in 2013.

The Outlook. We expect growth to slow to the 1 ½% to 2% (annual rate) range in the first half of 2012. This slowdown is largely the result of our fiscal assumptions. We assume that neither the payroll tax cut of 2011 nor the emergency unemployment benefits will be renewed, dampening consumer spending in the first half of the year. In addition, we expect that some business investment spending has likely been pulled forward by the full expensing provision which expires at the end of the year. Finally, the foreign growth outlook has been lowered while the expected exchange value of the dollar has been raised, both emanating from the ongoing sovereign debt crisis in the Euro Area.

But as 2012 progresses the effect of these factors is likely to fade, with growth rising to the 2½% to 3% (annual rate) range over the second half of the year. For all of 2012 real GDP is expected to increase by 2¼% to 2½% (Q4/Q4). The unemployment rate is likely to decline only modestly over the first half of 2012 but then begin a somewhat steeper descent in the second half of the year, averaging around 8¼% in 2012Q4. The firmer tone of growth over the second half of 2012 builds going into 2013, with growth of real GDP projected to be around 3¼%. This is sufficiently above our estimate of potential to begin a more notable decline of the unemployment rate, which falls to an average of around 7½% by 2013Q4.

In our central projection, the year-over-year change of the core PCE deflator slows over the course of 2012, reaching 1¼% by 2012Q4. This forecast is predicated on the continuing restraint exercised by low levels of resource utilization on firms' marginal costs and prices and the stability of long-term inflation expectations. The slow growth of unit labor costs also contributes to this path of subdued inflation. But as we go into 2013 we anticipate that core PCE inflation will move back toward the mandate consistent range, reaching 1½% (Q4/Q4) that year. In addition to the gradual decline of slack and the falling exchange value of the dollar, well anchored inflation expectations help to pull trend inflation back up toward the de facto target.

By the standards of past recoveries this forecast for growth is quite tame. Yet by the standards of the past few years it appears optimistic, particularly given the fiscal assumptions and the downgrading of foreign growth prospects. But it does appear to us that the natural healing process coming out of the financial crisis and deep recession is fairly far along at this point. While mortgage underwriting standards remain quite tight, we have achieved stabilization of single-family housing starts with a modest uptrend to multi-family starts. Outside of housing, both survey measures and hard data indicate that consumer credit is becoming more readily available. Business investment spending has been stronger than expected, particularly for nonresidential structures. Historically, business investment spending follows long cycles. And while federal fiscal drag is likely to be substantial for the next few years, it does appear that the worst of the contraction at the state and local level is behind us. Thus, while the risks to growth remain skewed to the downside, a modal forecast of improving growth and labor market conditions seems quite reasonable to us at this time.

2.2 Alternative Scenarios and Risks

The overall balance of risks for both real activity and inflation has not changed substantively since the last Blackbook and the risks remain skewed to the downside. This outcome is the combination of two factors. On the one hand, domestic developments indicate that the likelihood of an incipient recession in the US has decreased somewhat. On the other hand, the already significant risks for the US economy posed by the deleveraging of European financial institutions, a severe recession in Europe, and a drastic depreciation of the euro, have increased modestly since November.

The *Fiscal Consolidation* scenario, which reflects the risks from fiscal consolidation, remains the most likely scenario, with an associated probability slightly above 30% [Exhibit C-1]. This probability decreased since November, mostly to make room for increases in the likelihood of the most extreme scenarios. The *Global Credit Crunch* is the second most likely scenario, with a likelihood of about 20%, which increased since November, reflecting the risks associated with the European crisis. The probability of the *Faster Growth* scenario increased slightly over the intermeeting period, reflecting the relatively strong domestic data releases, and now stands at about 15%. This is about the same likelihood as the *Productivity Boom* scenario, whose associated probability has decreased a bit since November due to the GDP revisions.

Finally, the paths for core PCE inflation and real GDP growth associated with the various scenarios have changed relative to the previous Blackbook only to the extent that the *Central* scenario forecasts have changed, since the risks are defined relative to the *Central* scenario. Given that the *Central* scenario forecasts are quite similar to what they were in the last Blackbook, so are the paths associated with the various scenarios [Exhibit C-2].

The forecast distribution for core PCE inflation shifted down over the intermeeting period, due to the lower path for inflation in the short run under the *Central* scenario [Exhibit C-3]. The forecast distribution for real GDP growth is virtually unchanged since November, except for slightly greater downside risk in 2012. As a consequence, the probability of a recession through the end of 2012 is 56%, up from 53% in the previous Blackbook. The "Depth of Recession" chart shows that should a recession occur, it would most likely be relatively mild, similar to that in 2001.

Exhibit C-3 also shows the mean forecasts from the FRBNY DSGE model. The inflation forecasts are close to the expected value of the FRBNY forecast distribution. The forecasts for real GDP growth are closer to the *Central Scenario* through mid-2012 but more pessimistic thereafter.

3. Forecast Comparison

3.1 Comparison with Private Forecasters[1]

Real GDP Growth. The FRBNY forecast for real GDP growth in 2011Q4 significantly improved relative to the previous Blackbook. As in October, private forecasters remain more pessimistic for the current quarter, while the opposite is true for 2012Q1. On a year-over-year basis, however, the FRBNY forecast is in line with the projections of private forecasters both for 2011 and 2012.

[1] The details of the forecast comparison are in Exhibit B-8. Quarterly numbers are SAAR.

Inflation. The FRBNY inflation forecast in 2011Q4 decreased compared to the October Blackbook, especially for headline CPI, but is roughly unchanged over the medium term. Our projections for 2012Q1 are consistent, or slightly below, those of private forecasters. On a year-over-year basis, our forecast is well aligned with the projections of private forecasters both for the current and next year. Notably, as in October, none of the forecasters expect inflation – either core or headline – above 2% in 2012.

4. Robustness of Policy Recommendation

4.1 Sensitivity to Alternative Scenarios and Policy Rules

As in the last Blackbook, our policy recommendation is to maintain the target range for the federal funds rate at 0–0.25% through 2014Q3. Our recommended policy accommodation is justified by the current forecast and risk assessment for real activity and inflation. This accommodation goes beyond what is implied by the *Baseline* policy rule under all scenarios, except for the *Global Deflation* scenario [Exhibit D-1]. This reflects our assessment that under the zero lower bound, standard Taylor-type rules do not characterize optimal policy: a commitment to maintain rates low for *longer* than implied by standard rules is needed to provide an appropriate accommodation.

Exhibit D-2 shows the prescription of various policy rules using the expected value of the forecast distribution as an input. The path implied by the *Baseline* policy rule under the expected paths for output and inflation implies a liftoff in the second half of 2013. The *Nutter* rule, which puts weight only on inflation, is the only rule prescribing a liftoff earlier than 2013Q3. Exhibit D-2 also shows the implied nominal FFR for the *Outcome-based* rule, ignoring the zero bound constraint. Under the expected value of the forecast distribution, the unconstrained nominal FFR is almost -8% by the end of 2013.

Exhibit D-3 shows the prescriptions from alternative policy rules under the various scenarios. The *Nutter* rule prescribes a lift-off before 2012 under most scenarios, including the *Central* scenario, and before mid-2013 even under the low-inflation scenarios, such as *Productivity Boom*, *Global Credit Crunch*, and *Global Deflation* scenarios. FFR paths under the *Asymmetric Price Targeting* rule are at the lower bound

(0.25%) throughout the forecast horizon. For the *Outcome-based* rule, ignoring the zero bound, the paths are at or below zero through the end of 2013 for all scenarios, and through the end of 2014 for most of them.

Exhibit D-1 shows the “shadow” real FFR rates implied by the *Baseline* rule under the various scenarios, ignoring the zero bound constraint. Under the *Central* scenario, this rule implies a very gradual renormalization of the real rate, increasing from about -5% in the current quarter to about -1% by the end of 2014. Exhibit D-3 shows the real rate (under alternative scenarios) for the *Asymmetric Price Targeting*, the *Nutter*, and the *Outcome-based* rules. We also use the DSGE model to assess the current stance of monetary policy by performing a counterfactual exercise that eliminates current and past policy shocks. We find that the DSGE model predicts a counterfactual FFR for the current quarter roughly in line with the policy rate.

4.2 Comparison to Market Expectations

The expected FFR path implied by futures shifted down slightly relative to the November Blackbook, with a liftoff in the first half of 2013. The median Primary dealer’s expectation for the timing of the first tightening also moved in the same direction, from 2014Q1 to 2014Q2. Finally, the entire distribution of the first policy rate hike shifted towards later dates, but the difference with the November survey was small. On average, respondents attach 45% probability to the first policy rate hike occurring in 2014Q2 or later, up from 40% in October.

5. Significant Developments

5.1 Economic Developments

Foreign Data Releases. *Euro area*: GDP grew just 0.6 percent (saar) in Q3. Private consumption and government spending fell while investment spending was flat. Exports were the only source of significant growth. PMI surveys for manufacturing weakened through November to well below the threshold that signals an expansion. The European Commission’s economic sentiment index was a bit more positive by remaining stable at 6 percent below its long-run average in November. The unemployment rate increased to

10.3 percent in October with the number of unemployed up 2.3 percent over the year.

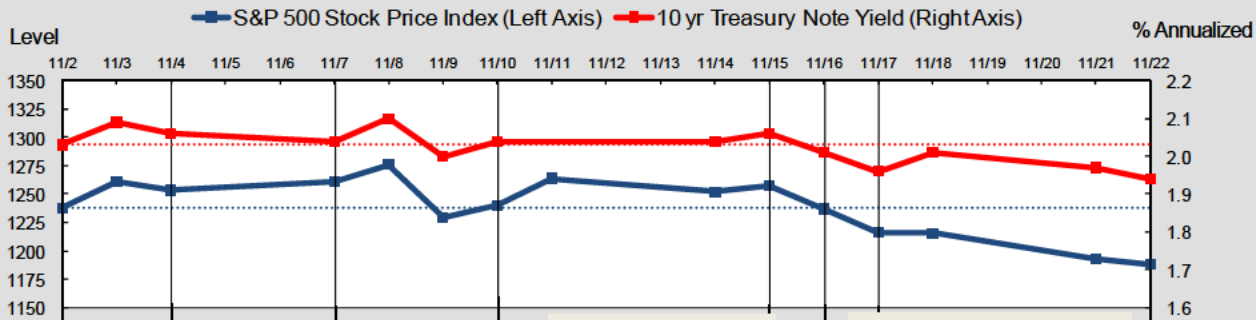
U.K.: The economy grew only 2.0 percent in Q3, but only because of a large contribution from inventories. Exports were down, while consumer spending and business spending were flat. The PMI for manufacturing remained well below the threshold that signals an expansion in November. Consumer confidence is at a very low level.

Japan: Private and public sector rebuilding, as well as a bounce-back in exports, caused growth to accelerate to 6.0 percent (saar) in Q3, following a 1.3 percent contraction in Q2. Export volumes dropped sharply in October, as flooding in Thailand disrupted supply chains. Industrial production barely rose in October after falling in September, leaving the index roughly unchanged over the year. The Reuters Tankan sentiment index dropped between September and November, and the PMI reading for manufacturing fell below 50 in November.

EM Asia: Recent manufacturing and service sector PMIs for China point to a slowing in domestic demand, with anecdotal evidence suggesting a particularly marked softening in the property sector. Moreover, readings for processing trade suggest export growth is slowing. CPI inflation edged down to 5.5 percent over the year in October, with the sequential trend slowing more markedly, consistent with other signs of a broad cooling in prices. The rest of Asia is experiencing weaker-than-expected trade, production and survey data.

Latin America: Brazil's economy stalled in Q3, in part due to prior policy tightening. PMI readings deteriorated over the course of 2011, but staged a meaningful rebound in October and November. Mexico's Q3 performance was stronger-than-expected and data have been favorable so far in Q4. The export-oriented manufacturing sector looks to have re-accelerated in Q4, highlighted by recent strong PMI readings.

Summary of Key Economic Indicators



FOMC Meeting

Employment Situation (Oct)
Non-farm payroll:
+80,000 (+95,000)
Upward revisions to August and September
Unemployment rate:
Down 0.1% to 9 0%
Labor force participation:
Unchanged at 64 2%

Retail Sales (Oct)
Total:
+0.5% (+0.3%)
+7.2% over twelve months
Ex-auto:
+0.6% (+0.2%)
+7.3% over twelve months

New Residential Construction (Oct)
Total housing starts:
-0.3% to 628,000 SAAR
(-7.3% to 610,000)
+16 5% over twelve months
- Single-family starts: +3.9%
- Multi-family starts: -8.3%

Real Activity Releases

Trade Balance (Sep)
Total
-$43.1 billion (-$46 0)
Down from revised -$44.9 billion in Aug
Exports:
+1.4%, +8.3% over twelve months
Non-oil Imports:
Flat, +4.5% over twelve months

Industrial Production & Capacity Utilization (Oct)
IP:
+0.7% (+0.4%)
+3 9% over twelve months
CU
+0 5% to 77 8% (+0 3%)
Remains below historical averages

Gross Domestic Product (Second Estimate for 2011Q3)
Real GDP: +2 0% (+2.5%)

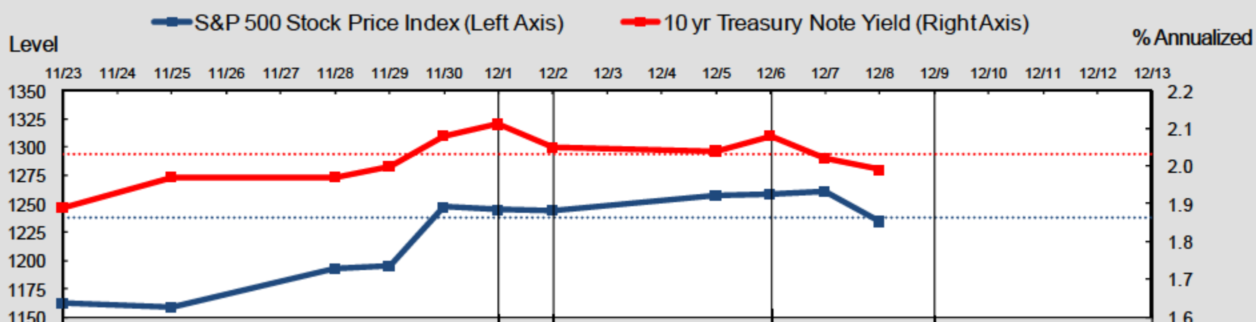
Core Logic Home Price Index (Sept)
Including distressed sales:
-0.9%
-4.1% over twelve months
Excluding distressed sales:
+0.4%
-1.1% over twelve months

Consumer Price Index (Oct)
Overall:
-0.1% (flat)
+3.5% over twelve months
Core:
+0.1% (+0.1%)
+2.1% over twelve months

Price Releases

Note
Blue shading: Data release better than expected.
Red shading: Data release worse than expected.

Numbers in parentheses are the median of the Bloomberg survey.



Advance Durable Goods (Oct)
New Orders:
-0.7% (-1.2%)
+7.5% over twelve months
Shipments:
+1.3%
+9.2% over twelve months

ISM Manufacturing (Nov)
Composite Index:
+1.9 points to 52.7
(+1.0 to 51 8)

FOMC Meeting

Trade Balance (Oct)
Total:
-$43.5 billion (-$43 5)
Down from revised -$44.2 billion in Sep
Exports:
+1 2%, +6.9% over twelve months
Non-oil Imports
Flat, +4.7% over twelve months

Real Activity Releases

Employment Situation (Nov)
Non-farm payroll:
+120,000 (+125,000);
Upward revisions to Sept and Oct
Unemployment rate
Down 0.4% to 8.6%
Labor force participation:
Down 0.2% to 64.0%

Personal Income and Spending (Oct)
Personal Income:
Nominal +0.4% (+0.3%)
Nominal disposable +0.3%
Real disposable +0 3%
PCE
Nominal +0.1% (+0.3%)
Real +0.1%
Personal saving rate: 3.5%

PCE Price Index (Oct)
Overall
-0.1% (-0.1%)
+2.7% over twelve months
Core:
+0.1% (+0.1%)
+1.7% over twelve months

Core Logic Home Price Index (Oct)
Including distressed sales:
-0 9%
-3 9% over twelve months
Excluding distressed sales:
+0.9%
-0 5% over twelve months

Price Releases

Note
Blue shading: Data release better than expected.
Red shading Data release worse than expected

Numbers in parentheses are the median of the Bloomberg survey.

5.2 Financial Markets

Domestic Financial Markets. Events in Europe were key drivers of domestic financial developments since the November FOMC meeting. Earlier in the intermeeting period, a more negative assessment of prospects for a resolution of the European sovereign crisis led to declines in long-term Treasury yields and risk asset prices. However, most of these earlier changes were reversed over the past few weeks as a more optimistic tone for Europe prevailed along with better than expected domestic economic data. Earlier in the intermeeting period following the demise of MF Global, stock prices and CDS spreads of a few financial institutions with significant dealer activities, including Jefferies and Morgan Stanley, came under significant pressure, but these moves have since mostly reversed.

Nominal Interest Rates: After dropping to just shy of 1.9% percent on safe-haven flows, rates on 10-year Treasury benchmarks are now essentially unchanged from the November FOMC meeting at about 2%. With policy expectations pinned down by the "mid-2013" language in the FOMC statement, the 2-year Treasury rate continued to hover in a very narrow range around 25 basis points, while the 3-month bill rate remained just above zero. Option implied volatilities in Treasury and swap markets as measured by the 3-month MOVE and SMOVE indices declined since the last meeting, and remain at relatively low levels by historical standards. (Exhibit A-3: Treasury Yields)

Expected Policy Path and Short-term Funding Markets: The expected path for the federal funds rate implied by futures quotes was little changed, on net, since the November FOMC meeting. Consistent with the "mid-2013" forward policy guidance in the FOMC statement, market quotes imply that the federal funds rate will trade in the current target range at least until mid-2013. In line with market implied expectations, professional forecasters in the Blue Chip Financial December 2011 panel expect the federal funds rate to trade in the current target range at least through the first quarter of 2013. Forecasters' disagreement about fed funds expectations as measured by the interquartile range of responses remains at historically low levels. Short-term funding pressures remained evident over the intermeeting period with the 3-month Libor-OIS spread moving to 45 basis points, up 10 basis points from the time of the November meeting. (Exhibit A-5: Policy Expectations)

Inflation Compensation: While yields on 5- and 10-year TIPS moved broadly in line with their nominal counterparts over the intermeeting period, near and far measures of inflation compensation are about 8 basis points lower than at the November FOMC meeting. Inflation compensation implied by TIPS over the next 5 years declined to about 1.8%, while the 5-year breakeven 5-years forward rate narrowed to about 2.35%. (Exhibit A-4: Real Yields and Inflation Compensation)

Equity Markets: Shortly after the November FOMC meeting, the S&P500 index dropped as much as 5 percent on pessimism about prospects for a resolution of the European sovereign crisis. Since then, broad stock market indexes have rebounded and the S&P500 index is now about 1% higher than at the time of the last meeting. The S&P500 financial index moved in line with the broader index but had dropped as much as 12% from its November 1 level before recovering much of those losses. Following the demise of MF Global and developments in Europe, smaller financial institutions with large significant dealer activities came under significant pressure with stock prices dropping and CDS spreads widening, although much of those moves have been reversed. Implied equity volatility as measured by the VIX declined slightly to 30% since November 1 and remain significantly below the year-highs of above 40% witnessed over the summer. (Exhibit A-6/7: Equity and Credit)

Credit Spreads: Corporate bond credit and CDS spreads moved in line with broad market indexes but widened somewhat, on net, over the intermeeting period. High-yield corporate credit as well as CDS spreads increased about 15 basis points to about 755 and 715 basis points, respectively, over the intermeeting period. Investment grade credit spreads widened roughly 30 basis points to about 260, over the intermeeting period, while CDS investment grade spreads were about unchanged over the same period at about 125. (Exhibit A-7 Credit)

Foreign Financial Markets. *Euro Area*: Early in the intermeeting period, European financial markets were significantly affected by increased selling pressure and deteriorating liquidity due to political uncertainties in Greece and Italy. These pressures subsided toward the end of the period, with the transition of power in both countries to technocratic governments. Market participants also reacted favorably to heightened expectations of robust policy measures, particularly from the ECB. These expectations were driven by comments from ECB president Draghi about a euro zone ‘fiscal compact,’ ongoing negotiations among European leaders for stronger fiscal governance, and efforts by European leaders to bolster and utilize the IMF’s lending capacity to stabilize European markets. This sentiment subsequently deteriorated somewhat as Draghi sought to downplay that interpretation. Also, efforts to increase the viability of the EFSF, including agreements to lever it with a partial insurance scheme and the establishment of co-investment funds, were not received as successful in creating a credible backstop. As a consequence of these developments in market sentiment, sovereign bond spreads of peripheral euro zone countries, except Greece and Portugal, decreased since the last FOMC meeting and the euro weakened against the dollar by about 2 percent.

Japan: Following the most recent, unilateral, currency intervention by Japanese monetary authorities on October 31, the yen depreciated against the U.S. dollar by about 3 percent to ¥78 per dollar level. Since then the dollar-yen has been broadly unchanged near this level. The Nikkei 225 index increased more than 5 percent over the last two weeks, in line with a 9 percent rise in the S&P 500, while yields on 10-year Japanese government bonds (JGBs) rose more than 10 basis points. These movements were mainly driven by positive U.S. data releases and European headlines supporting global risky assets. JGB price action was also affected by concerns about German debt auctions, warnings from the S&P and IMF regarding Japan’s fiscal imbalance, and technical changes to JGB futures trading in Tokyo.

Emerging Asia: EM Asian currencies weakened 1 percent against the dollar, where the Indian rupee depreciated the most: it fell by almost 5 percent on a mounting trade deficit and weakening portfolio inflows. Equities in the region declined on average by 1 percent, and local curves generally steepened, with the latter reflecting a modest increase in monetary easing expectations.

Latin America: Currencies in Latin America depreciated by 2 percent, although they have recovered by 4 percent since November 27. Local equity markets were up by 3 percent, while sovereign credit spreads were generally tighter. In Argentina, capital flight spurred by the imposition of currency controls and growing macro imbalances has kept local financial markets under pressure.

5.3 Global Economic Policy

Euro Area: The ECB cut its policy rate at its November and December meetings with a cumulative 50 basis points to 1 percent and announced at its December meeting a significant downgrade to its 2012 growth outlook to 0.3 percent (year over year). In addition, the ECB announced at its latest meeting that it will hold 3-year fixed rate full allotment refinancing operations, starting at year-end, and it reduced its required reserve ratio for banks from 2 percent to 1 percent. Also, collateral standards for the ECB's open market operations were eased, with national banks now allowed to accept performing loans and the rating threshold on asset-backed securities lowered from AAA to A. On November 30, the ECB acted in conjunction with the Federal Reserve System and four other central banks in lowering the borrowing cost of currency swap lines, making them reciprocal, and extending the authorized lifespan of the program.

Japan: The Bank of Japan kept its policy rate in a range of 0.0-0.10 percent at its November 16 policy meeting and will continue to do so until its official projections suggest price stabilization in the near-to-medium term. It also decided to keep the size of its Asset Purchase Program at ¥20 trillion. The Ministry of Finance (MoF) directed the Bank to unilaterally intervene in currency markets on October 31 to weaken the value of the yen, as the dollar-yen exchange rate declined sharply towards the ¥75-¥76 per dollar range. The intervention was larger than expected: market participants anticipated an intervention amount equal to about ¥7.5 trillion, but the MoF announced on November 30 a total amount equal to more than ¥9 trillion. The operation was the largest single-day intervention by Japanese authorities. Continued upward pressure on the yen relative to the currencies of Japan's main trading partners makes additional currency interventions and more monetary stimulus likely in the near future.

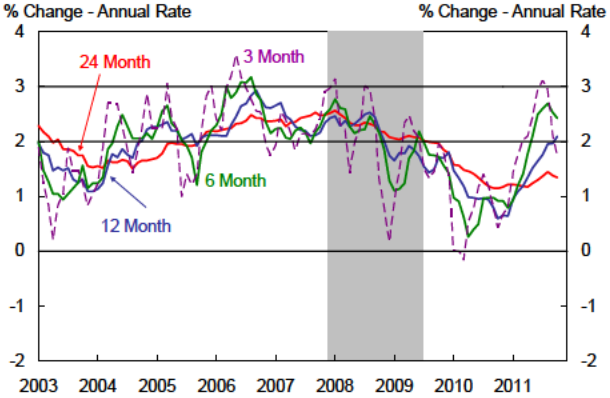
EM Asia: Monetary policy in EM Asia has shifted gear towards an accommodative stance given worries about the outlook for external demand and slowing domestic spending. Authorities in China lowered reserve requirement ratios for banks by 50 basis points towards the end of the intermeeting period, which represents the first cut of this cycle. Further reserve requirement cuts are likely and lower interest rates might follow additional signs of slowing. Market expectations, as embedded in one-year ahead currency forward contracts, now imply a weaker yuan against the dollar over the next year. The central bank of Thailand cut its rate by 25 basis points in November to counter the impact of the recent flooding, whereas the Indonesion central bank again cut its rate by 50 basis points.

Latin America: As at its October and November policy meetings, the Mexican central bank held rates steady at 4.5 percent at its December meeting and signaled the possibility of a rate cut should global conditions deteriorate further. In addition, the central bank announced it would be vigilant about the impact of recent currency weakness on inflation. Mexican authorities also re-introduced a mechanism for supplying dollars to the market in order to stem currency volatility. Most analysts now expect a rate cut in Mexico in March 2012. In Brazil, the central bank continued its easing cycle in November with another 50 basis point cut, bringing the policy rate to 11 percent. Analysts now expect three additional cuts of 50 basis points in the current cycle. The central bank also partially rolled back credit tightening measures implemented in late 2010. Finally, in Argentina, monetary policy remains tight with the private bank benchmark 30-day deposit rate hovering around 20 percent, up 800 basis points since early August.

A. Significant Developments

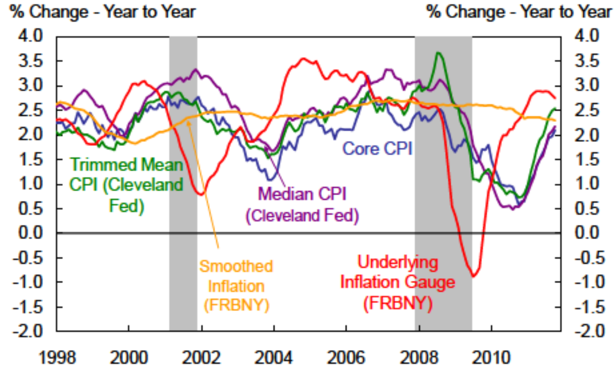
Exhibit A-1:
Measures of Trend Inflation

Core CPI Inflation over Various Horizons



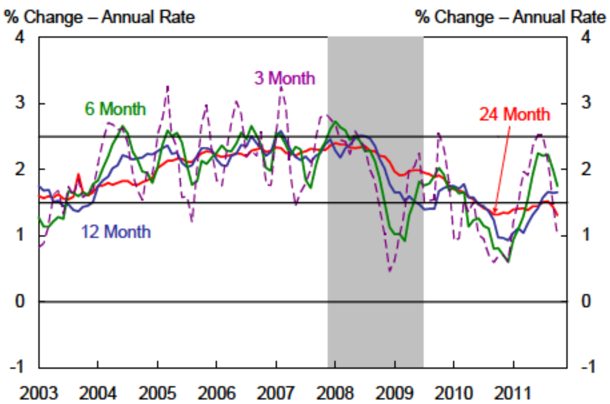
Source: Bureau of Labor Statistics

Alternative Measures of CPI Inflation



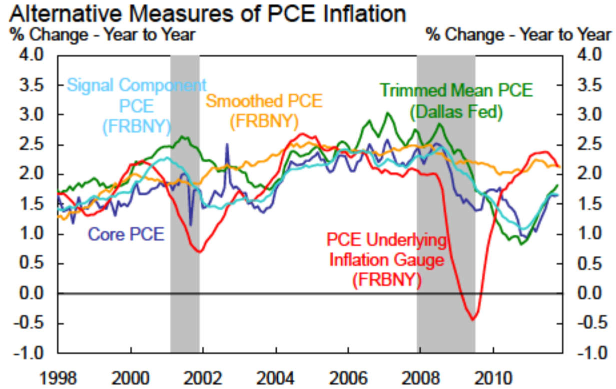
Source: Bureau of Labor Statistics, Cleveland Fed, MMS Function (FRBNY), and Swiss National Bank

Core PCE over Various Horizons



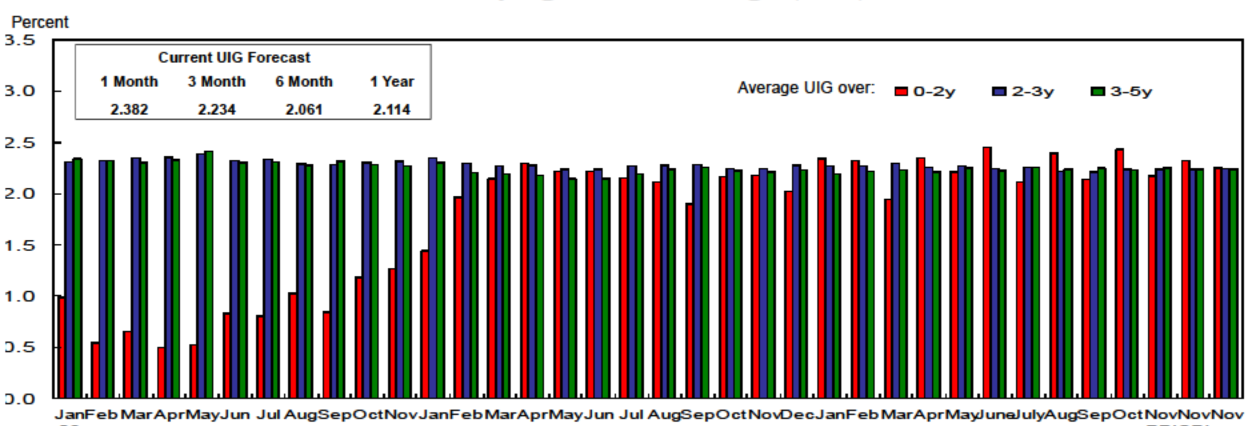
Source: Bureau of Economic Analysis

Alternative Measures of PCE Inflation



Source: Bureau of Economic Analysis, Cleveland Fed, MMS Function (FRBNY), and Swiss National Bank

Exhibit A-2:
Underlying Inflation Gauge (UIG)



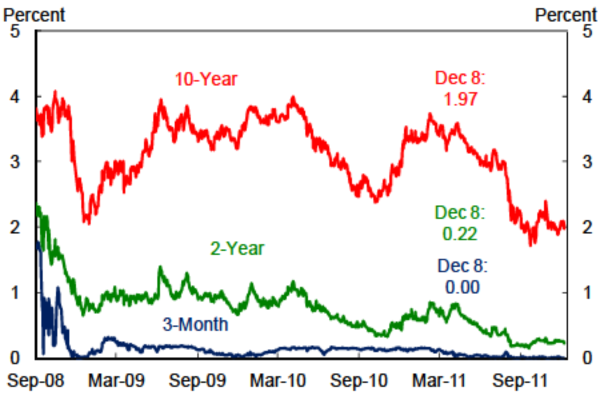
Source: MMS Function (FRBNY) and Swiss National Bank

FRBNY - cleared for release

A. Significant Developments

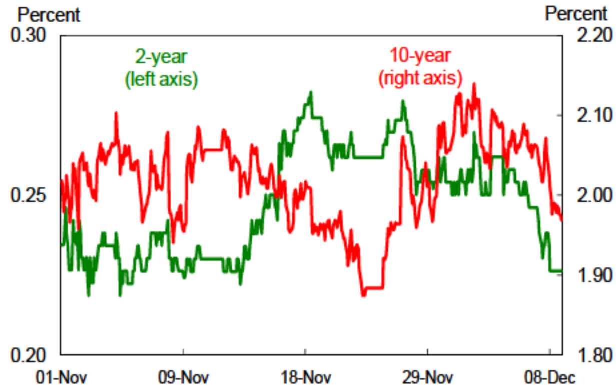
Exhibit A-3:
Treasury Yields

Short- and Long-Term Rates



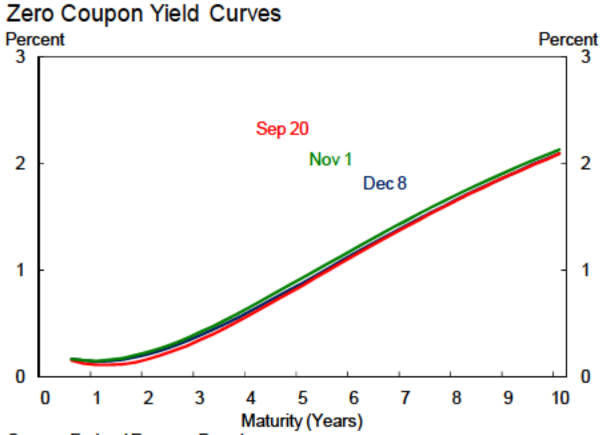
Source: Bloomberg Note: Yields of on-the-run securities.

Short- and Long-Term Rates (Intraday)



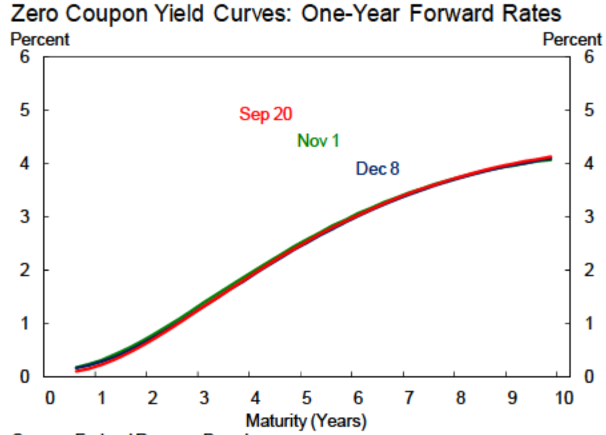
Source: Bloomberg Note: On-the-run securities, 8:00 am to 4:00 pm.

Zero Coupon Yield Curves



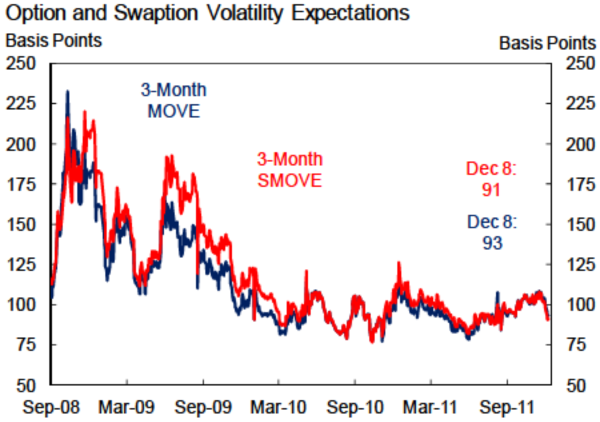
Source: Federal Reserve Board

Zero Coupon Yield Curves: One-Year Forward Rates



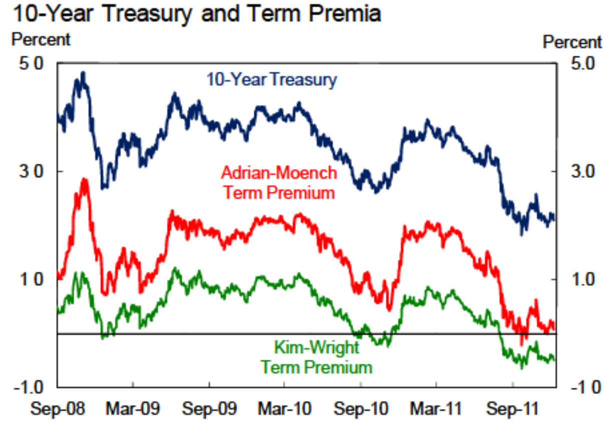
Source: Federal Reserve Board

Option and Swaption Volatility Expectations



Source: Federal Reserve Board, Barclays, and FRBNY

10-Year Treasury and Term Premia

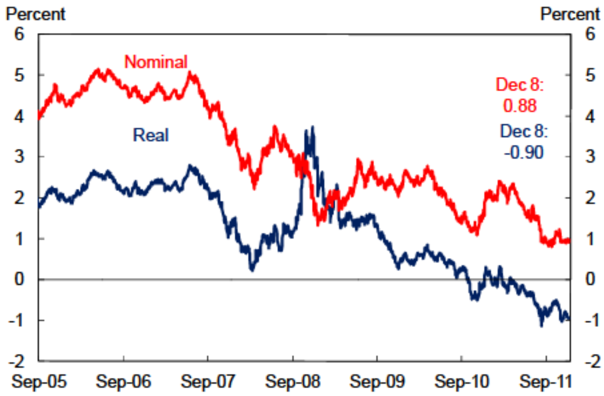


Source: FRBNY calculations, Federal Reserve Board

A. Significant Developments

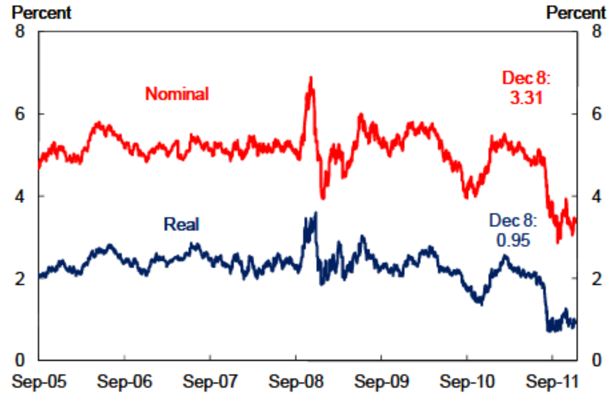
Exhibit A-4:
Real Yields and Implied Inflation

5 Year Spot Rate



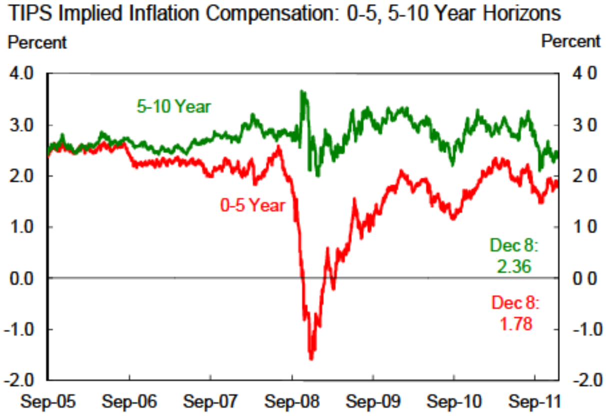
Source: Federal Reserve Board

5-10 Year Forward Rates



Source: Federal Reserve Board

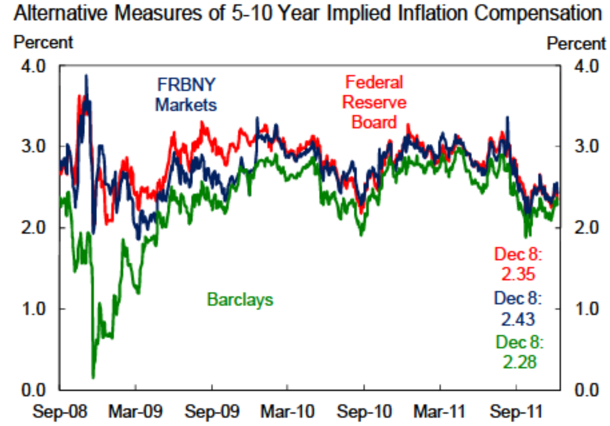
TIPS Implied Inflation Compensation: 0-5, 5-10 Year Horizons



Source: Federal Reserve Board

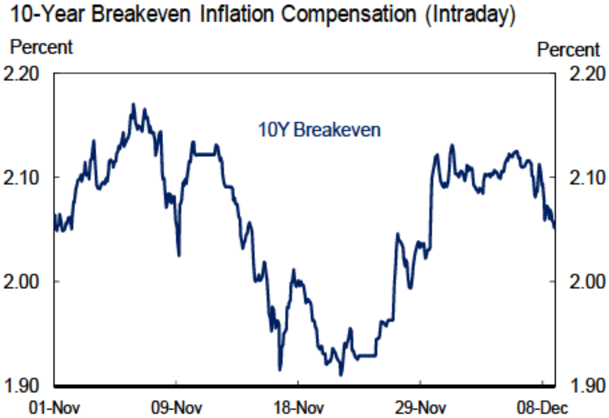
Note: Carry-adjusted.

Alternative Measures of 5-10 Year Implied Inflation Compensation



Source: Federal Reserve Board, Barclays, and FRBNY calculations

10-Year Breakeven Inflation Compensation (Intraday)



Source: Bloomberg

Note: On-the-run securities, 8:00 am to 4:00 pm.

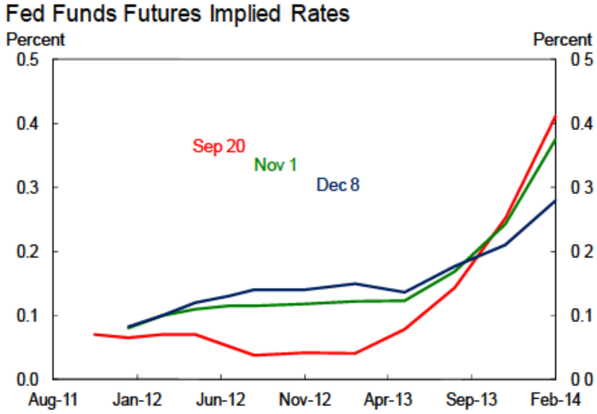
Implied Inflation from Inflation Swaps: 0-5, 5-10 Year Horizon

Source: Barclays

A. Significant Developments

Exhibit A-5:
Policy Expectations

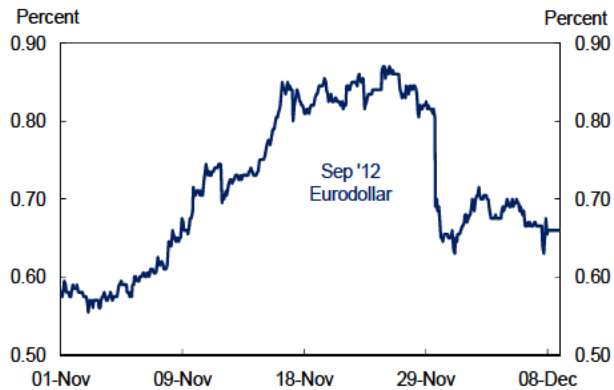
Fed Funds Futures Implied Rates



Source: Federal Reserve Board

Note: Estimated using fed funds and Eurodollar futures.

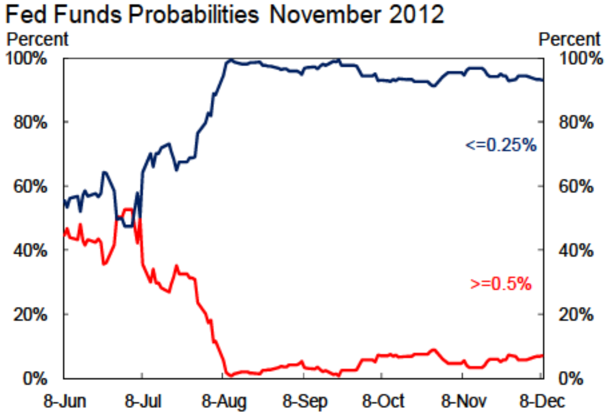
Implied Eurodollar Rates (Intraday)



Source: Bloomberg

Note: 8:00 am to 4:00 pm.

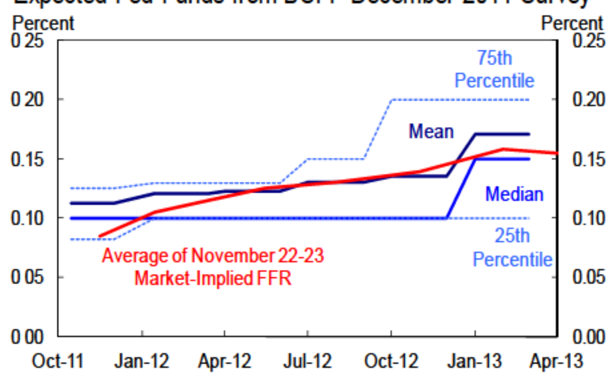
Fed Funds Probabilities November 2012



Source: Bloomberg

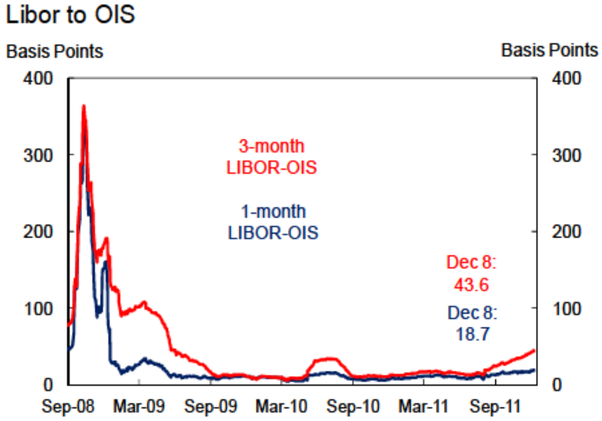
Note: Estimated from Fed Funds Futures

Expected Fed Funds from BCFF December 2011 Survey



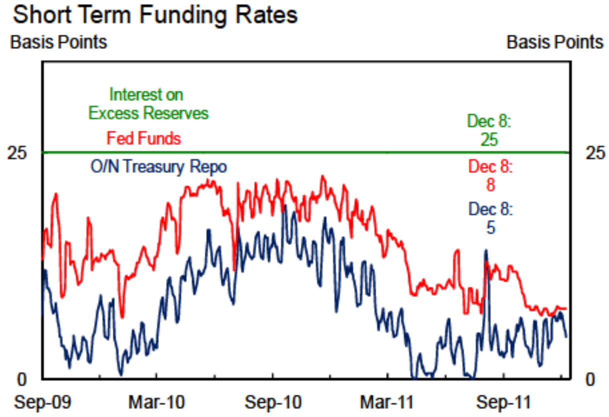
Note: Implied FFR are from Fed Funds and Eurodollar futures.
The BCFF survey was conducted on November 22-23 .

Libor to OIS



Source: Federal Reserve Board, Bloomberg

Short Term Funding Rates



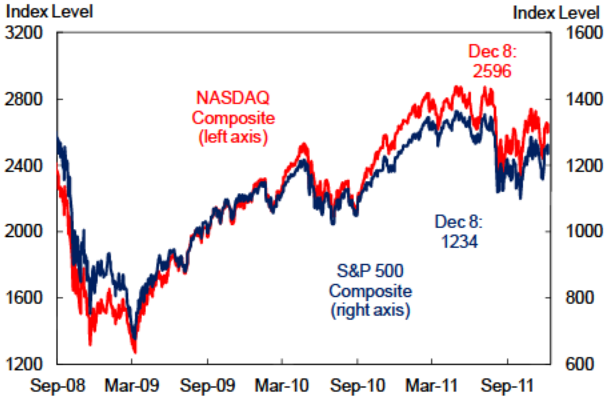
Source: Bloomberg, FRBNY calculations

Note: 1-week moving averages.

A. Significant Developments

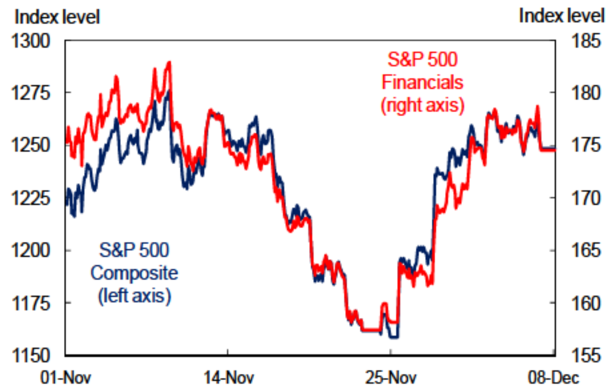
Exhibit A-6:
Equity

Equity Index Levels



Source: Datastream

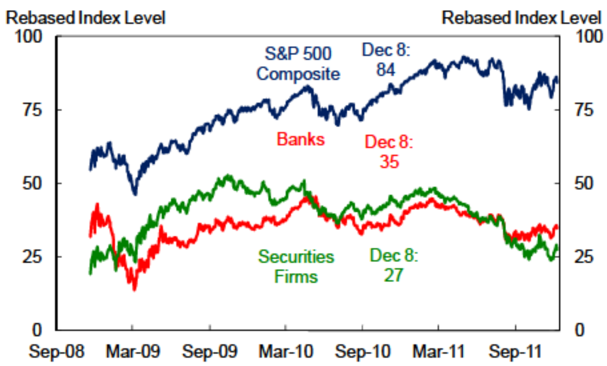
S&P 500 Indices (Intraday)



Source: Bloomberg

Note: 9:30 am to 4:00 pm.

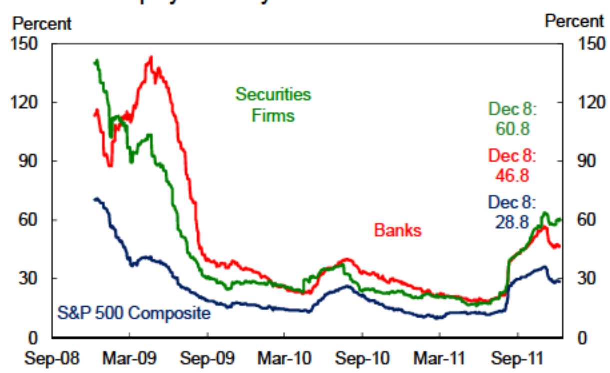
Equity Performance



Source: Datastream

Note: Rebased to equal 100 on August 1, 2007. Banks series is S&P 500 Banks index. Securities Firms series is S&P 500 Investment Banks and Brokerages index.

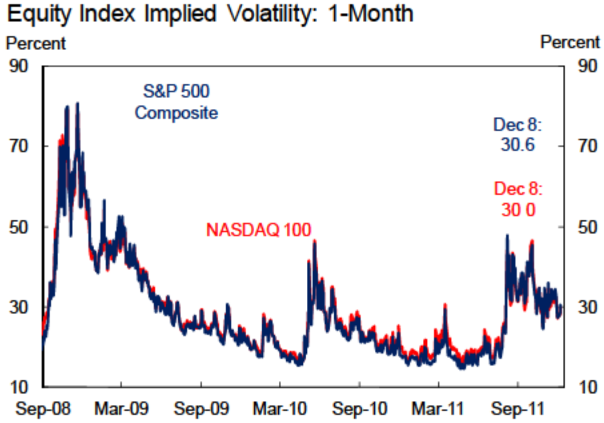
Historical Equity Volatility



Source: Datastream

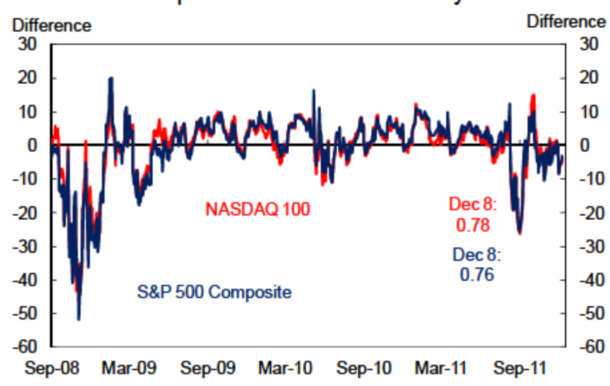
Note: Annualized rolling 3-month standard deviation of daily returns. Banks series is S&P 500 Banks index. Securities Firms series is S&P 500 Investment Banks and Brokerages index.

Equity Index Implied Volatility: 1-Month



Source: Datastream

Difference of Implied and Realized Volatility



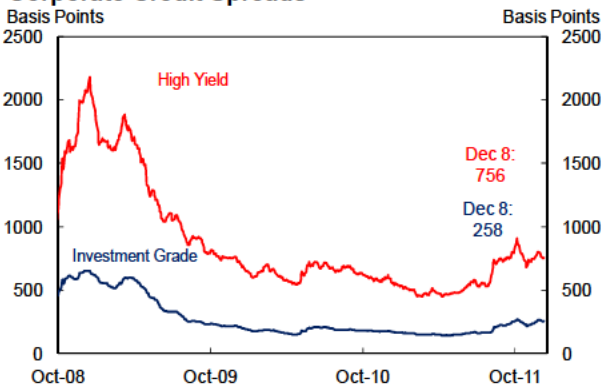
Source: Datastream

Note: Realized volatility is annualized 1-month rolling standard deviation of daily returns (360-day year) for S&P 500 and Nasdaq 100.

A. Significant Developments

Exhibit A-7:
Credit

Corporate Credit Spreads



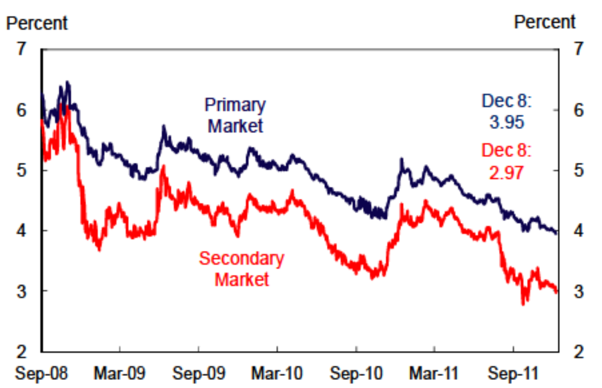
Source: Bloomberg

Note: Option-adjusted spreads.

CDS Spreads

Source: Bloomberg

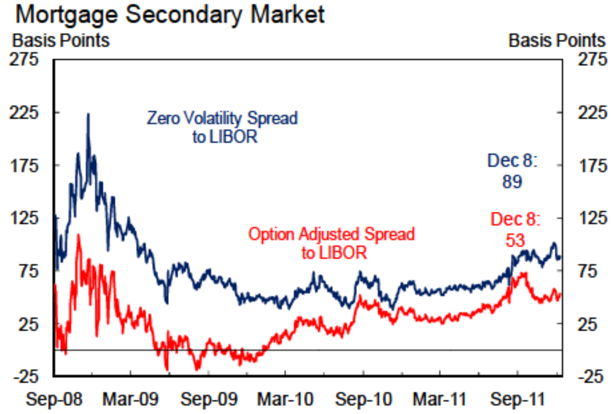
Mortgage Market Rates



Source: Bloomberg

Note: 30-year fixed mortgage rate and Fannie Mae current coupon yield.

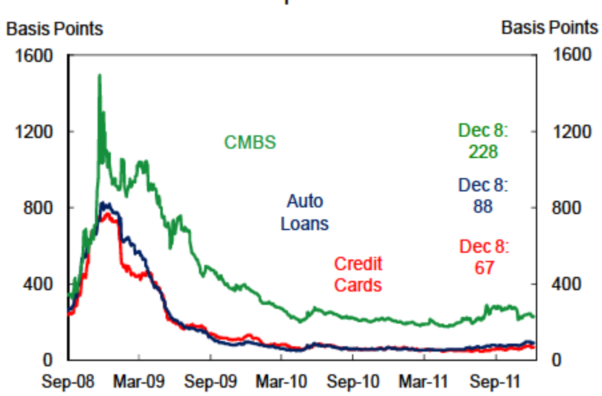
Mortgage Secondary Market



Source: J.P. Morgan

Note: 30 year current coupon Fannie Mae MBS.

AAA-Rated ABS/CMBS Spreads



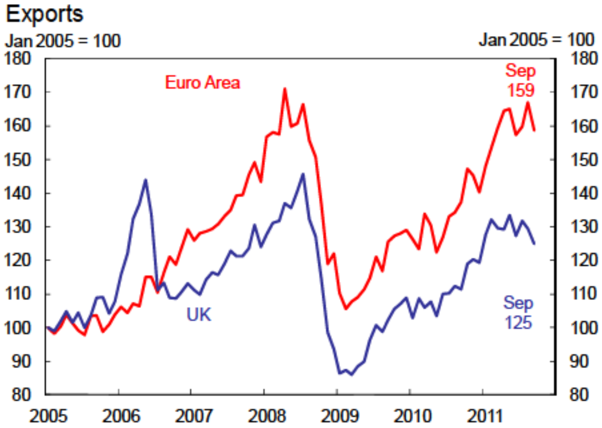
Source: Merrill Lynch

Note: Option-adjusted spreads.

A. Significant Developments

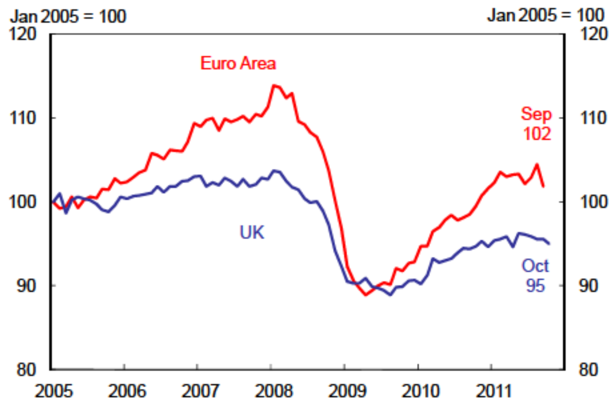
Exhibit A-8: Exports and Industrial Production

Exports



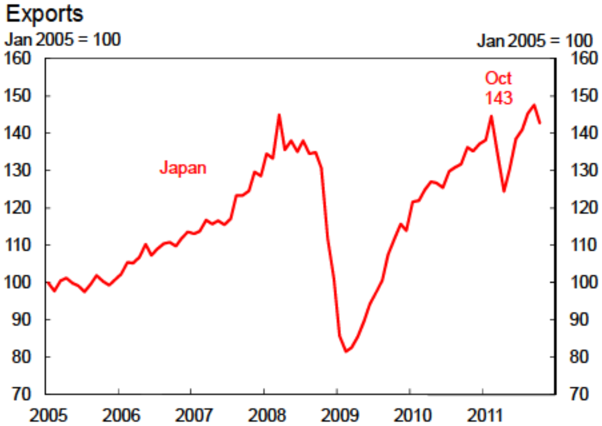
Source: Haver Note: In Dollar Terms

Industrial Production



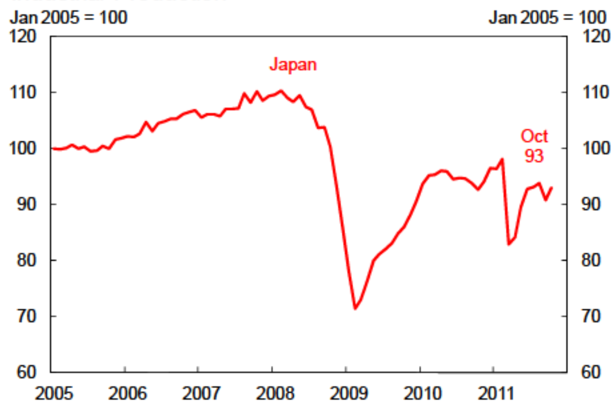
Source: Haver

Exports



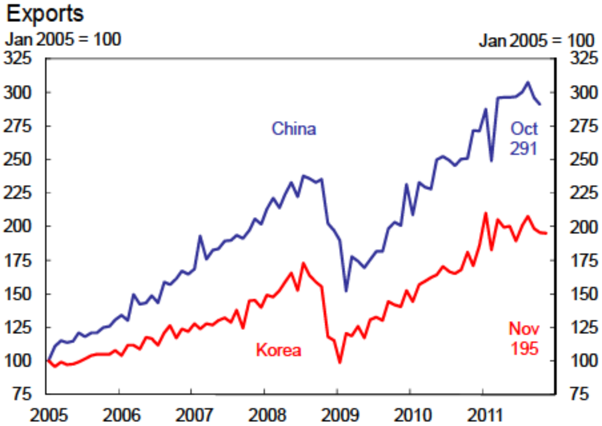
Source: Haver Note: In Dollar Terms

Industrial Production



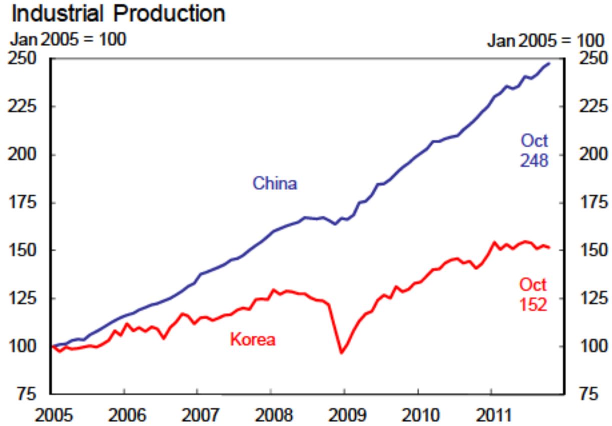
Source: Haver

Exports



Source: Haver Note: In Dollar Terms

Industrial Production

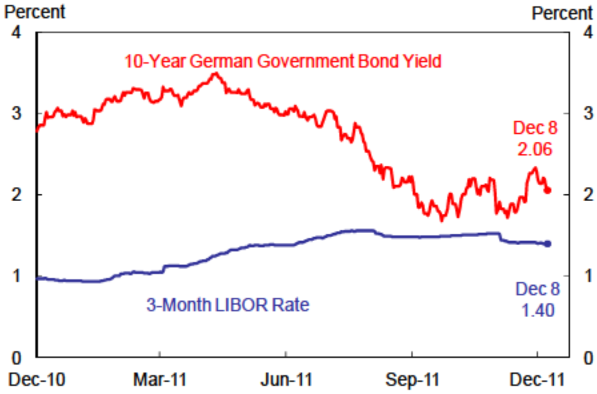


Source: Haver

A. Significant Developments

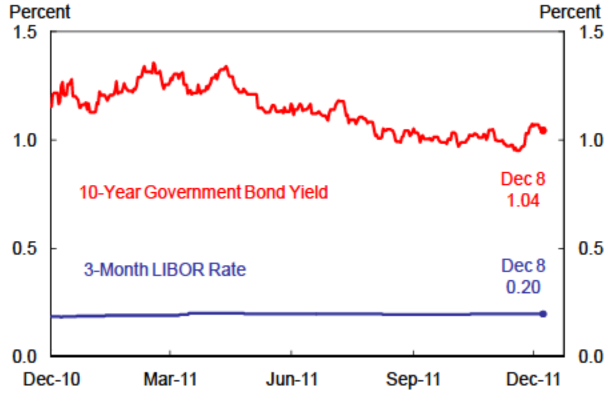
Exhibit A-9:
Global Interest Rates and Equity Markets

Euro Area Short- and Long-Term Interest Rates



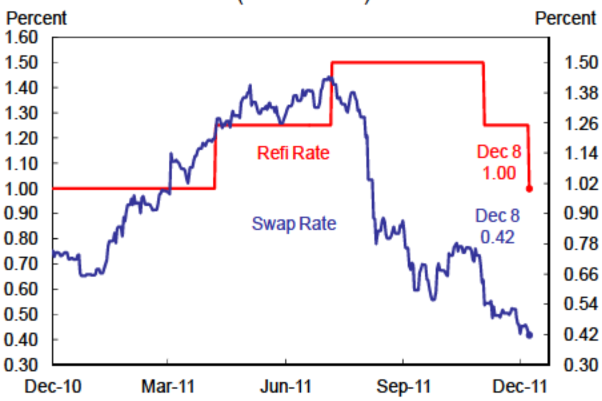
Source: Bloomberg

Japan Short- and Long-Term Interest Rates



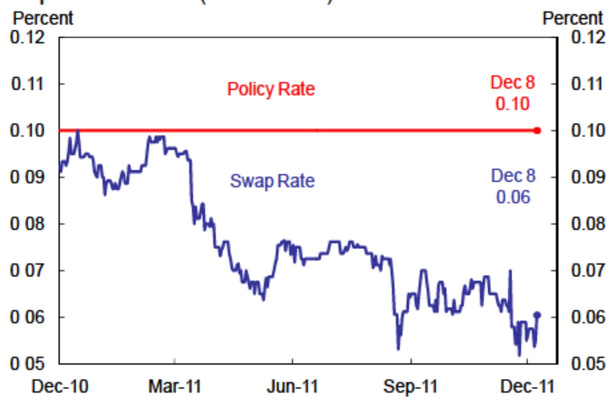
Source: Bloomberg

Euro Area: OIS Rate (Six Months)



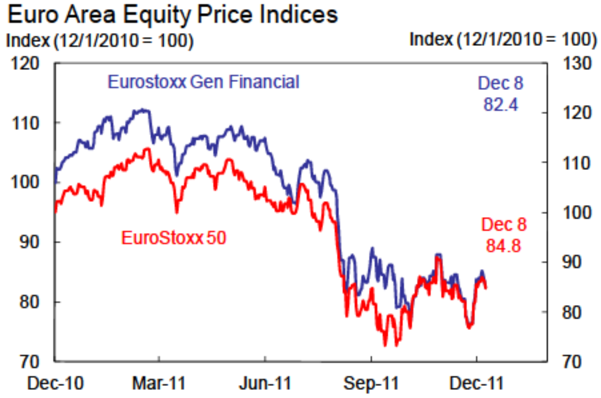
Source: Bloomberg

Japan: OIS Rate (Six Months)



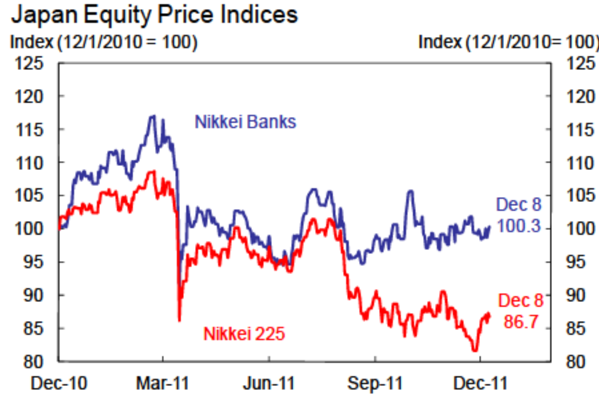
Source: Bloomberg

Euro Area Equity Price Indices



Source: Bloomberg

Japan Equity Price Indices

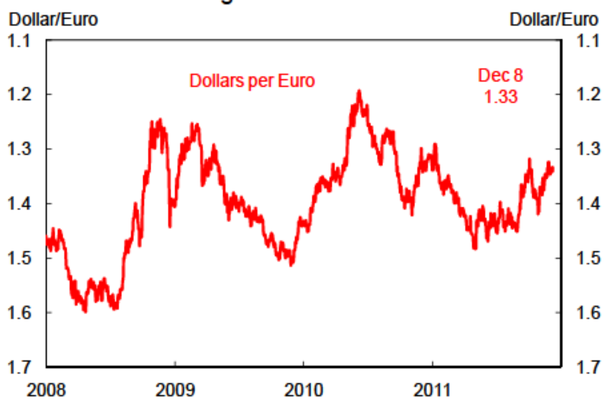


Source: Bloomberg

A. Significant Developments

Exhibit A-10:
Exchange Rates

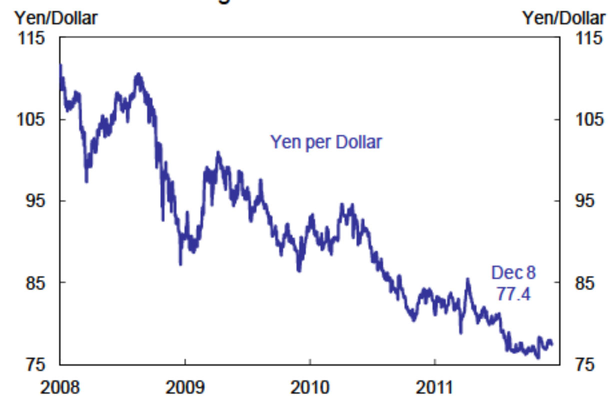
Dollar-Euro Exchange Rate



Source: Bloomberg

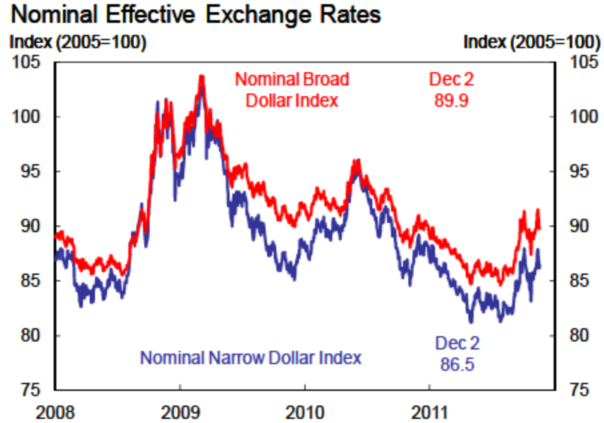
Note: Exchange rate scale is inverted.

Yen-Dollar Exchange Rate



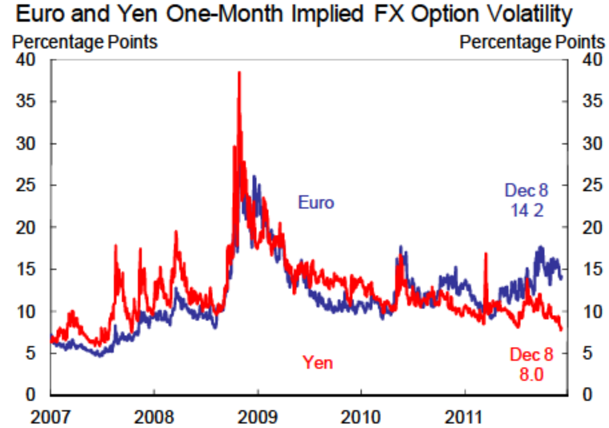
Source: Bloomberg

Nominal Effective Exchange Rates



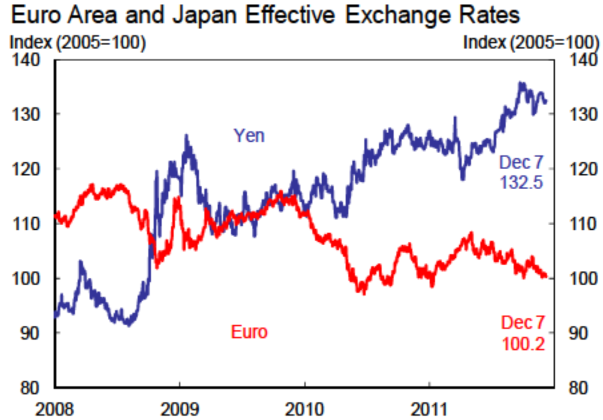
Source: Board of Governers

Euro and Yen One-Month Implied FX Option Volatility



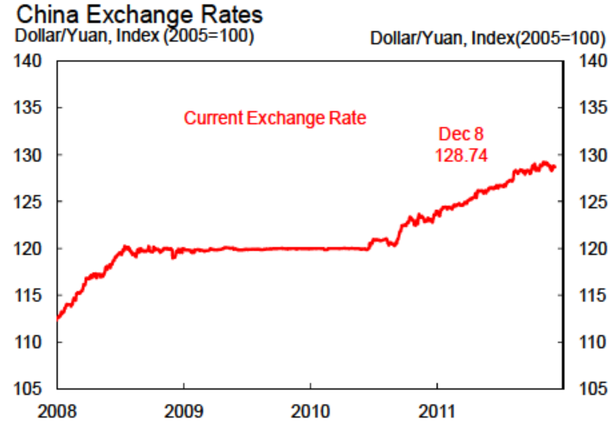
Source: Bloomberg

Euro Area and Japan Effective Exchange Rates



Source: Bloomberg and JPMorgan

China Exchange Rates



Source: Bloomberg

B. FRBNY Forecast Details

Exhibit B-1: Quarterly and Annual Projections of Key Variables

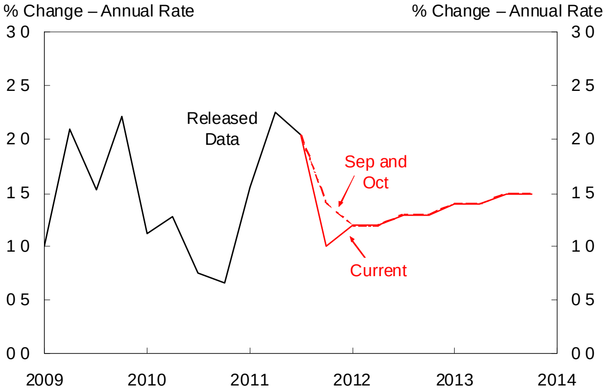
	Core PCE Inflation			Real GDP Growth			Unemployment Rate*			Fed Funds Rate**		
	Sep	Oct	Dec	Sep	Oct	Dec	Sep	Oct	Dec	Sep	Oct	Dec
2011												
Q1	*1.5*	*1.5*	*1.5*	*0.4*	*0.4*	*0.4*	*8.9*	*8.9*	*8.9*	*0-0.25*	*0-0.25*	*0-0.25*
Q2	*2.1*	*2.2*	*2.2*	*1.0*	*1.3*	*1.3*	*9.1*	*9.1*	*9.1*	*0-0.25*	*0-0.25*	*0-0.25*
Q3	2.4	2.1	*2.0*	2.1	2.5	*2.0*	9.0	9.1	*9.1*	0-0.25	0-0.25	*0-0.25*
Q4	1.4	1.4	1.0	2.4	3.0	3.7	9.0	9.0	8.8	0-0.25	0-0.25	0-0.25
2012												
Q1	1.2	1.2	1.2	2.3	2.3	1.2	8.9	8.9	8.7	0-0.25	0-0.25	0-0.25
Q2	1.2	1.2	1.2	2.5	2.9	2.1	8.8	8.8	8.6	0-0.25	0-0.25	0-0.25
Q3	1.3	1.3	1.3	2.8	3.0	3.0	8.8	8.8	8.5	0-0.25	0-0.25	0-0.25
Q4	1.3	1.3	1.3	2.7	2.6	3.3	8.7	8.7	8.3	0-0.25	0-0.25	0-0.25
2013												
Q1	1.4	1.4	1.4	3.6	3.6	3.3	8.4	8.5	8.0	0-0.25	0-0.25	0-0.25
Q2	1.4	1.4	1.4	3.3	3.4	3.2	8.1	8.3	7.8	0-0.25	0-0.25	0-0.25
Q3	1.5	1.5	1.5	3.5	3.4	3.3	7.9	8.1	7.6	0-0.25	0-0.25	0-0.25
Q4	1.5	1.5	1.5	3.5	3.6	3.4	7.6	7.8	7.4	0-0.25	0-0.25	0-0.25
Q4/Q4												
2010	*1.0*	*1.0*	*1.0*	*3.1*	*3.1*	*3.1*	*-0.3*	*-0.3*	*-0.3*	*0.0*	*0.0*	*0.0*
2011	1.9	1.8	1.7	1.5	1.8	1.8	-0.7	-0.7	-0.9	0.0	0.0	0.0
2012	1.2	1.2	1.2	2.6	2.7	2.4	-0.1	-0.1	-0.3	0.0	0.0	0.0
2013	1.4	1.4	1.4	3.5	3.5	3.3	-0.8	-0.6	-0.9	0.0	0.0	0.0

Note: Columns reflect the forecast dates. Numbers in gray are from previous Blackbooks, and numbers in italics are released data.
*Quarterly values are the average rate for the quarter. Yearly values are the difference between Q4 of the previous year and Q4 of the listed year.
**Quarterly values are the end-of-quarter value. Yearly values are the difference between the end-of-year value in the previous year and the end-of-year value in the listed year.

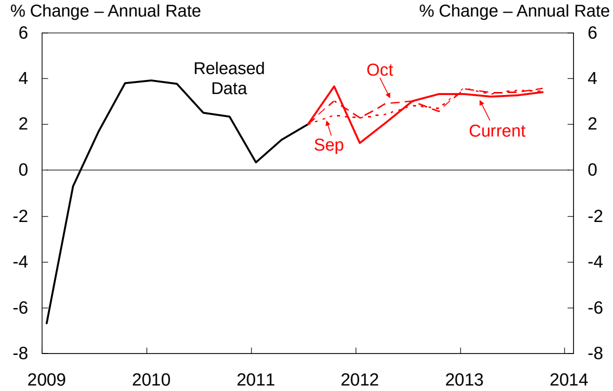
B. FRBNY Forecast Details

Exhibit B-2: Evolution of Projected Quarterly Paths of Key Indicators and Forecast Assumptions

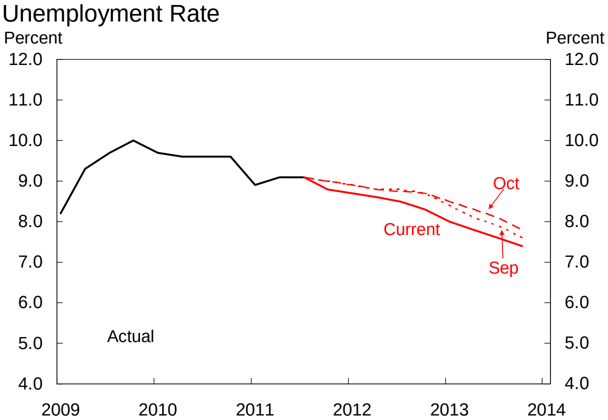
Core PCE Inflation



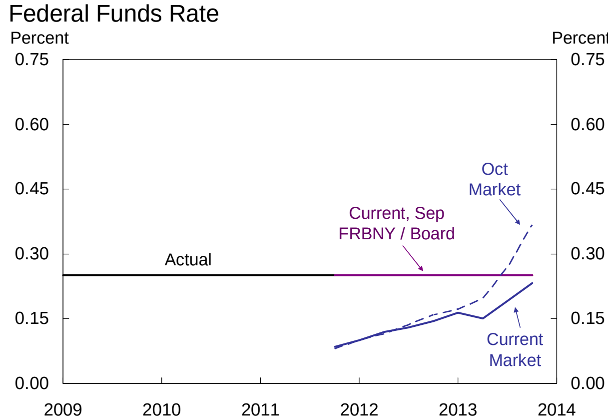
Real GDP Growth



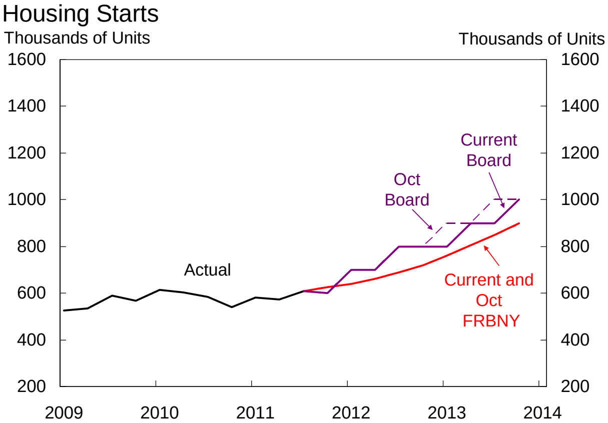
Unemployment Rate



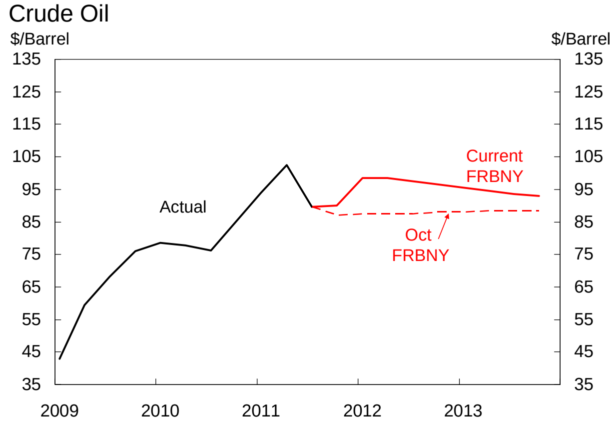
Federal Funds Rate



Housing Starts



Crude Oil



Source: MMS and IR Functions (FRBNY) and Federal Reserve Board

B. FRBNY Forecast Details

Exhibit B-3: Near-Term Projections

	Quarterly Growth Rates (AR)		Quarterly Growth Contributions (AR)	
	2011Q4	2012Q1	2011Q4	2012Q1
OUTPUT				
Real GDP	3.7	1.2	3.7	1.2
	(3.0)	(2.3)	(3.0)	(2.3)
Final Sales to Domestic Purchasers	2.7	0.8	2.7	0.8
	(2.4)	(1.5)	(2.4)	(1.5)
Consumption	2.6	1.0	1.9	0.7
	(2.0)	(1.7)	(1.4)	(1.2)
BFI: Equipment and Software	10.0	5.0	0.7	0.4
	(12.0)	(8.0)	(0.9)	(0.6)
BFI: Nonresidential Structures	9.0	8.0	0.2	0.2
	(10.0)	(8.0)	(0.3)	(0.2)
Residential Investment	-7.1	-6.2	-0.2	-0.1
	(-4.0)	(-8.0)	(-0.1)	(-0.2)
Government: Federal	3.0	-3.3	0.2	-0.3
	(1.0)	(-3.3)	(0.1)	(-0.3)
Government: State and Local	-1.6	-1.0	-0.2	-0.1
	(-1.0)	(-0.7)	(-0.1)	(-0.1)
Inventory Investment	--	--	0.5	0.6
	--	--	(0.3)	(0.5)
Net Exports	--	--	0.4	-0.2
	--	--	(0.3)	(0.3)
INFLATION				
Total PCE Deflator	1.0	1.4		
	(2.2)	(1.4)		
Core PCE Deflator	1.0	1.2		
	(1.4)	(1.2)		
PRODUCTIVITY AND LABOR COSTS*				
Output per Hour	3.0	0.8		
	(1.3)	(1.8)		
Compensation per Hour	1.0	2.0		
	(2.0)	(2.3)		
Unit Labor Costs	-2.0	1.3		
	(0.8)	(0.5)		

Note: Numbers in parentheses are from the previous Blackbook.
*Nonfarm business sector.

B. FRBNY Forecast Details

Exhibit B-4: Real GDP and Inflation Projections

	Q4/Q4 Growth Rates			Q4/Q4 Growth Contributions		
	2011	2012	2013	2011	2012	2013
OUTPUT						
Real GDP	1.8	2.4	3.3	1.8	2.4	3.3
	(1.8)	(2.7)	(3.5)	(1.8)	(2.7)	(3.5)
Final Sales to Domestic Purchasers	1.8	1.8	3.0	1.9	1.9	3.1
	(1.8)	(2.0)	(3.1)	(1.9)	(2.1)	(3.2)
Consumption	1.9	1.9	2.7	1.4	1.3	1.9
	(1.8)	(1.9)	(2.7)	(1.3)	(1.3)	(1.9)
BFI: Equipment and Software	10.1	8.2	10.0	0.7	0.6	0.8
	(11.0)	(9.0)	(10.0)	(0.8)	(0.7)	(0.8)
BFI: Nonresidential Structures	6.5	8.0	8.0	0.2	0.2	0.2
	(7.0)	(8.0)	(8.0)	(0.2)	(0.2)	(0.2)
Residential Investment	-1.0	3.9	14.0	0.0	0.1	0.3
	(0.0)	(9.0)	(14.0)	(-0.0)	(0.2)	(0.3)
Government: Federal	-0.8	-3.3	-2.0	-0.1	-0.3	-0.2
	(-1.2)	(-3.3)	(-2.0)	(-0.1)	(-0.3)	(-0.2)
Government: State and Local	-2.3	-0.6	0.4	-0.3	-0.1	0.0
	(-2.1)	(-0.4)	(0.6)	(-0.3)	(0.0)	(0.1)
Inventory Investment	--	--	--	-0.3	0.3	0.1
	--	--	--	(-0.2)	(0.3)	(0.2)
Net Exports	--	--	--	0.2	0.2	0.1
	--	--	--	(0.1)	(0.3)	(0.2)
INFLATION						
Total PCE Deflator	2.6	1.4	1.5			
	(2.9)	(1.4)	(1.5)			
Core PCE Deflator	1.7	1.2	1.4			
	(1.8)	(1.2)	(1.4)			
Total CPI Inflation	3.5	1.9	2.0			
	(3.8)	(1.9)	(2.0)			
Core CPI Inflation	2.1	1.6	1.8			
	(2.2)	(1.6)	(1.8)			
GDP Deflator	2.3	1.2	1.7			
	(2.7)	(1.4)	(1.5)			

Note: Numbers in parentheses are from the previous Blackbook.

B. FRBNY Forecast Details

Exhibit B-5: Projections of Other Key Economic Variables

	Q4/Q4 Growth Rates		
	2011	2012	2013
INTEREST RATE ASSUMPTIONS			
Federal Funds Rate (End-of-Year)	0-0.25	0-0.25	0-0.25
	0-0.25	0-0.25	0-0.25
10-Year Treasury Yield (Avg. Q4 Level)	2.0	1.8	1.9
	(1.5)	(1.5)	(1.5)
PRODUCTIVITY AND LABOR COSTS*			
Output	2.6	3.0	4.1
	(2.6)	(3.4)	(4.4)
Hours	1.4	1.6	2.4
	(1.5)	(1.6)	(2.6)
Output per Hour	1.2	1.4	1.7
	(1.1)	(1.7)	(1.8)
Compensation per Hour	2.5	2.2	2.5
	(3.1)	(2.3)	(2.5)
Unit Labor Costs	1.1	0.7	0.7
	(2.1)	(0.5)	(0.7)
LABOR MARKET			
Unemployment Rate (Avg. Q4 Level)	8.8	8.3	7.4
	(9.0)	(8.7)	(7.8)
Participation Rate (Avg. Q4 Level)	64.1	64.1	64.2
	(64.1)	(64.2)	(64.3)
Avg. Monthly Nonfarm Payroll Growth (Thous.)	133	150	225
	(146)	(149)	(259)
INCOME			
Personal Income	3.7	2.4	4.7
	(5.0)	(3.2)	(4.0)
Real Disposable Personal Income	-0.1	0.7	2.6
	(1.5)	(1.3)	(1.4)
Personal Saving Rate	3.4	2.4	2.2
	(5.5)	(4.9)	(3.4)
Corporate Profits Before Taxes	11.2	3.1	3.7
	(2.8)	(2.8)	(12.9)

Note: Numbers in parentheses are from the previous Blackbook.
*Nonfarm business sector.

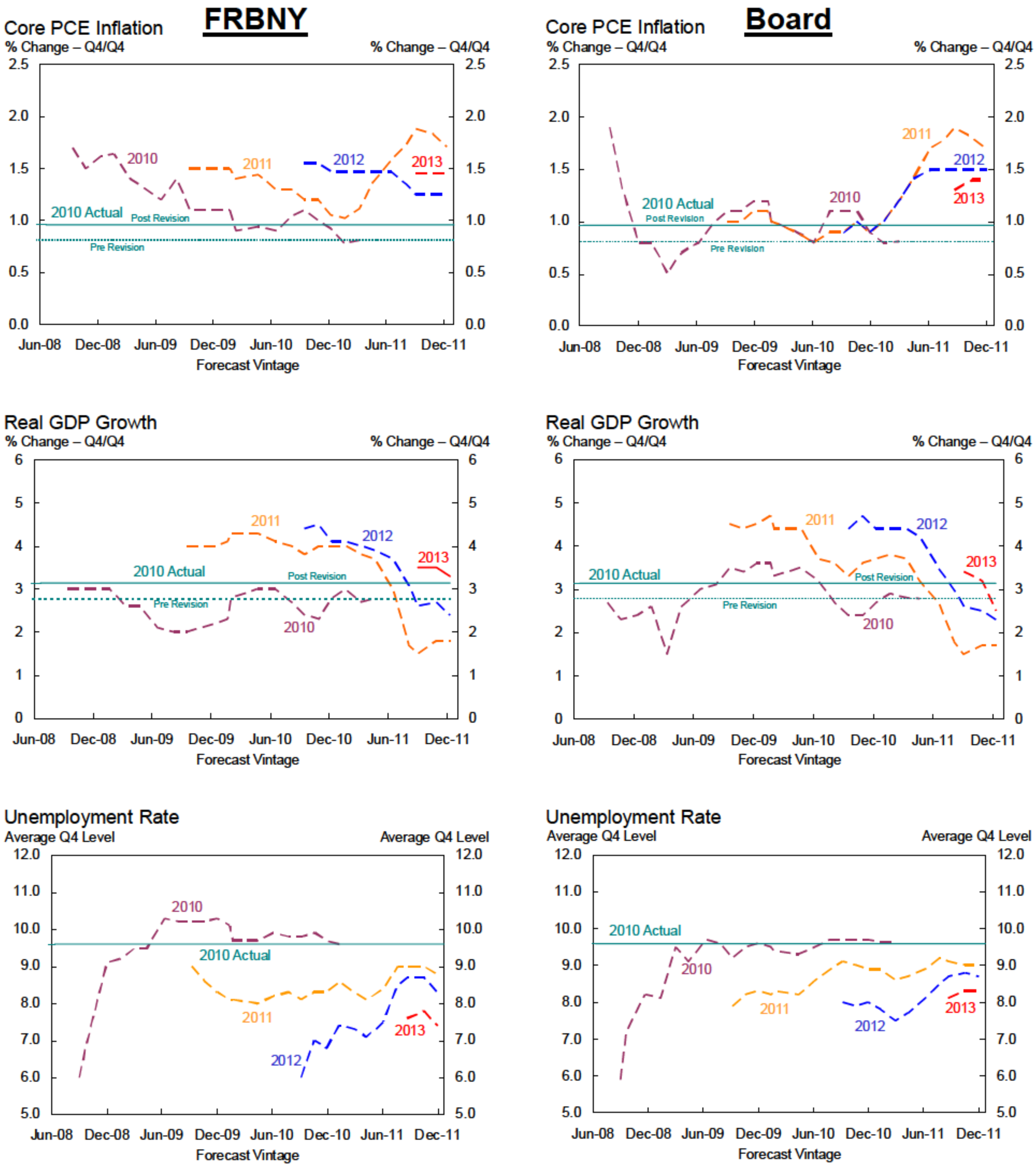
B. FRBNY Forecast Details

Exhibit B-6: FRBNY and Tealbook Forecast Comparison

	FRBNY (Q4/Q4)			Board (Q4/Q4)		
	2011	2012	2013	2011	2012	2013
OUTPUT						
Real GDP	1.8	2.4	3.3	1.7	2.3	2.5
	(1.8)	(2.7)	(3.5)	(1.7)	(2.5)	(3.2)
GDP Growth Contributions						
Final Sales to Domestic Purchasers	1.9	1.9	3.1	1.6	2.0	2.1
	(1.9)	(2.1)	(3.2)	(1.5)	(2.0)	(2.7)
Consumption	1.4	1.3	1.9	1.3	1.7	1.6
	(1.3)	(1.3)	(1.9)	(1.2)	(1.7)	(2.2)
BFI	0.9	0.8	1.0	0.8	0.2	0.5
	(1.0)	(0.9)	(1.0)	(0.6)	(0.3)	(0.5)
Residential Investment	0.0	0.1	0.3	0.0	0.1	0.2
	(0.0)	(0.2)	(0.3)	(0.0)	(0.1)	(0.2)
Government	-0.3	-0.3	-0.1	-0.5	0.0	-0.2
	(-0.4)	(-0.3)	(-0.1)	(-0.3)	(-0.1)	(-0.2)
Inventory Investment	-0.3	0.3	0.1	-0.1	0.3	0.3
	(-0.2)	(0.3)	(0.2)	(0.0)	(0.2)	(0.4)
Net Exports	0.2	0.2	0.1	0.1	0.0	0.0
	(0.1)	(0.3)	(0.2)	(0.1)	(0.3)	(0.1)
INFLATION						
Total PCE Deflator	2.6	1.4	1.5	2.5	1.4	1.2
	(2.9)	(1.4)	(1.5)	(2.7)	(1.4)	(1.4)
Core PCE Deflator	1.7	1.2	1.4	1.7	1.5	1.4
	(1.8)	(1.2)	(1.4)	(1.8)	(1.5)	(1.4)
INTREST RATE ASSUMPTION						
Fed Funds Rate (End-of-Year)	0-0.25	0-0.25	0-0.25	0-0.25	0-0.25	0-0.25
	0-0.25	0-0.25	0-0.25	0-0.25	0-0.25	0-0.25
PRODUCTIVITY AND LABOR COSTS*						
Output per Hour	1.2	1.4	1.7	0.9	1.3	1.2
	(1.1)	(1.7)	(1.8)	(1.0)	(1.2)	(1.7)
Compensation per Hour	2.5	2.2	2.5	1.8	2.3	2.2
	(3.1)	(2.3)	(2.5)	(2.9)	(2.3)	(2.2)
Unit Labor Costs	1.1	0.7	0.7	0.9	1.1	0.9
	(2.1)	(0.5)	(0.7)	(1.9)	(1.1)	(0.6)
LABOR MARKET						
Unemployment Rate (Avg. Q4 Level)	8.8	8.3	7.4	9.0	8.7	8.3
	(9.0)	(8.7)	(7.8)	(9.1)	(8.6)	(8.1)
Participation Rate (Avg. Q4 Level)	64.1	64.1	64.2	64.1	64.1	64.0
	(64.1)	(64.2)	(64.3)	(64.1)	(64.0)	(64.1)
Avg. Monthly Nonfarm Payroll Growth (Thous.)	133	150	225	133	150	183
	(146)	(149)	(259)	(117)	(150)	(225)
SAVING						
Personal Saving Rate (Avg. Q4 Level)	3.4	2.4	2.2	4.3	5.0	4.4
	(4.3)	(3.6)	(3.4)	(5.1)	(5.1)	(5.1)
HOUSING						
Housing Starts (Avg. Q4 Level, Thous.)	625	720	900	600	700	900
	(625)	(720)	(895)	(600)	(700)	(900)

B. FRBNY Forecast Details

Exhibit B-7: Evolution of FRBNY and Board Forecasts since Mid-2008



Note: Forecast vintage is the date the forecast was produced.

B. FRBNY Forecast Details

Exhibit B-8: Alternative GDP and Inflation Forecasts

Real GDP Growth

	Release Date	2011Q4	2012Q1	2011 Q4/Q4	2012 Q4/Q4
FRBNY	12/9/2011	3.7	1.2	1.8	2.4
		(3.0)	(2.3)	(1.8)	(2.7)
Blue Chip	12/9/2011	2.7	1.9	1.6	2 2
		(1.9)	(1.9)	(1.4)	(2.3)
Median SPF	11/14/2011	2.6	2.4	1.7	2.6
		(2.6)	(2.2)	(1.6)	--
Macro Advisers	12/2/2011	2.7	2.0	1.6	2 2
		(2.3)	(2.3)	(1.6)	(2.5)

Core PCE Inflation

	Release Date	2011Q4	2012Q1	2011 Q4/Q4	2012 Q4/Q4
FRBNY	12/9/2011	1.0	1.2	1.7	1 2
		(1.4)	(1.2)	(1.8)	(1 2)
Median SPF	11/14/2011	1.4	1.6	1.8	1.6
		(1.5)	(1.5)	(1.7)	(1.6)
Macro Advisers	12/2/2011	1.1	1.4	1.7	1.4
		(1.6)	(1.4)	(1.9)	(1.5)

CPI Inflation

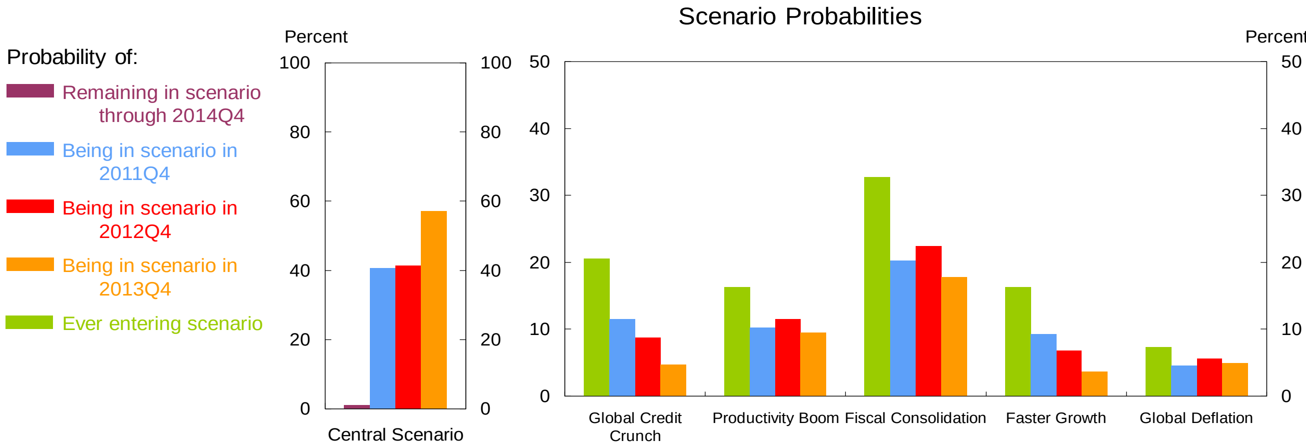
	Release Date	2011Q4	2012Q1	2011 Q4/Q4	2012 Q4/Q4
FRBNY	12/9/2011	1.8	2.0	3.5	1 9
		(3.0)	(2.0)	(3.8)	(1 9)
Blue Chip	12/9/2011	1.6	1.9	3.5	2 0
		(1.8)	(2.0)	(3.4)	(2 0)
Median SPF	11/14/2011	2.0	2.0	3.6	1 9
		(2.0)	(2.0)	(3.2)	(2 0)
Macro Advisers	12/2/2011	1.2	1.6	3.4	1.6
		(1.3)	(1.6)	(3.4)	(1.7)

Core CPI Inflation

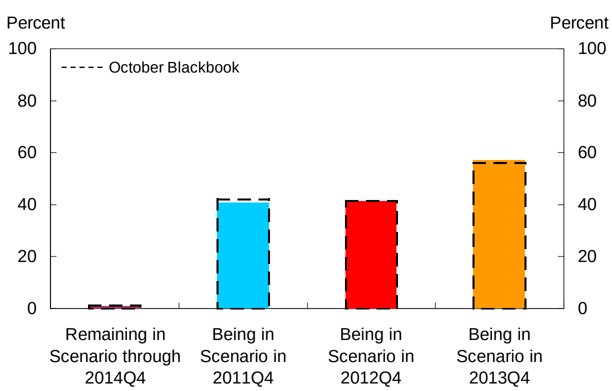
	Release Date	2011Q4	2012Q1	2011 Q4/Q4	2012 Q4/Q4
FRBNY	12/9/2011	1.6	1.6	2.1	1.6
		(1.7)	(1.6)	(2.2)	(1.6)
Median SPF	11/14/2011	1.7	1.8	2.2	1.8
		(1.7)	(1.7)	(2.0)	(1.8)
Macro Advisers	12/2/2011	1.6	1.9	2.1	1.6
		(2.2)	(2.0)	(2.3)	(1 9)

C. FRBNY Forecast Distributions

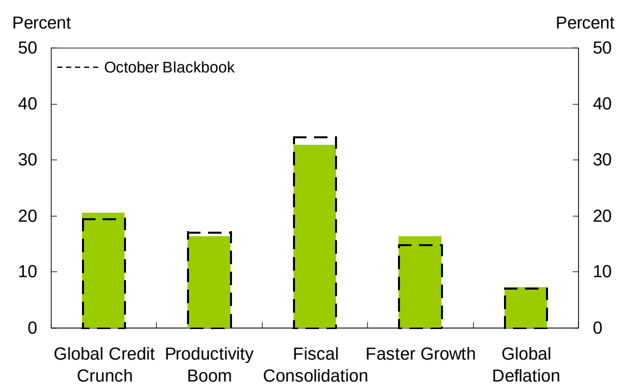
Exhibit C-1: Risks



Change in Central Scenario Probabilities



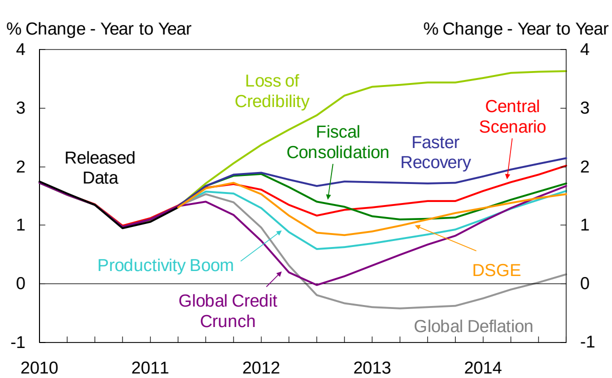
Change in Alternative Scenario Probabilities*



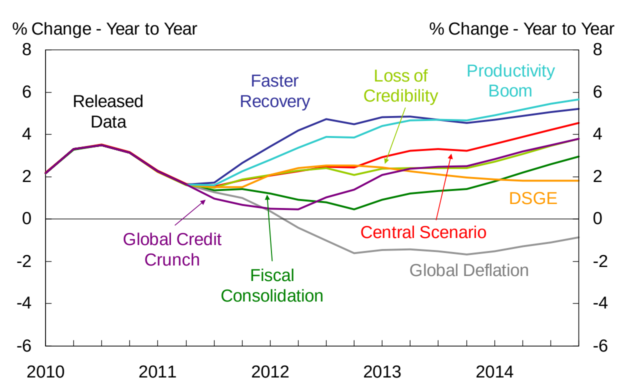
*Probability of ever reaching scenario

Exhibit C-2: Projections under Alternative Scenarios

Core PCE Inflation under Alternative Scenarios



Real GDP Growth under Alternative Scenarios

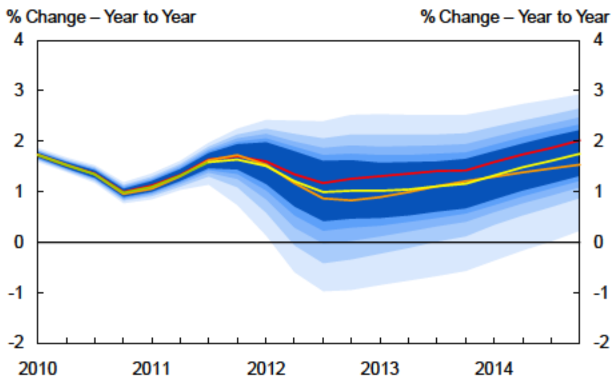


Source: MMS Function (FRBNY)

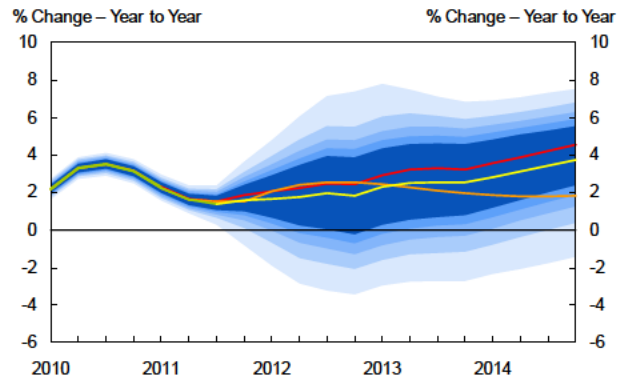
C. FRBNY Forecast Distributions

Exhibit C-3: Inflation and Output Forecast Distributions

Core PCE Inflation Forecast Distribution

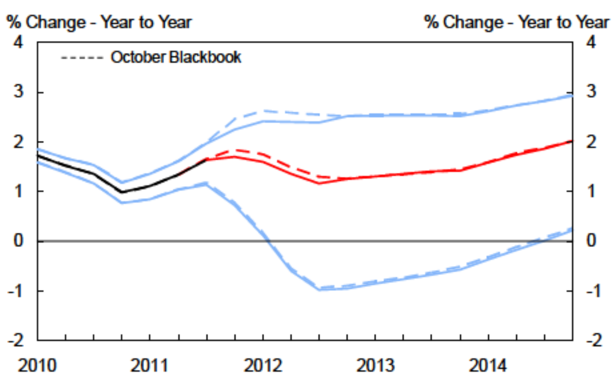


Real GDP Growth Forecast Distribution

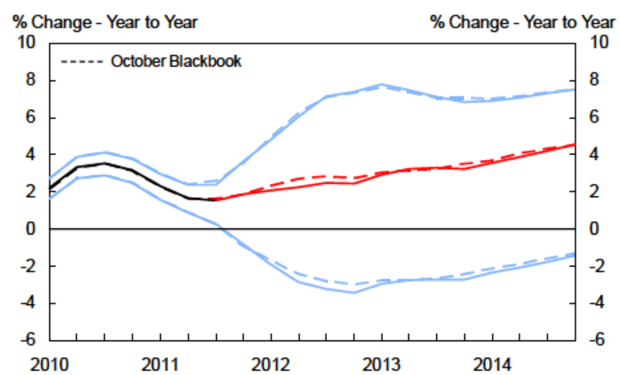


The yellow line represents the expected value of the forecast distribution, the red line represents the FRBNY central projection, the orange line represents the DSGE forecast, and the green line represents released data. The shading represents the 50, 60, 70, 80 and 90 percent probability that the four-quarter change will be within the respective range.

Change in Core PCE Inflation Forecast Distribution

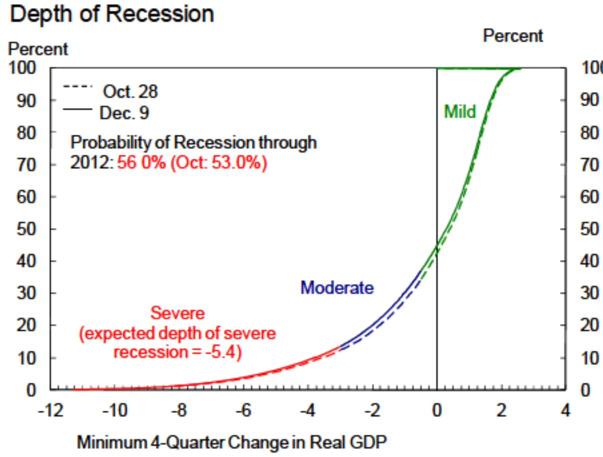


Change in Real GDP Growth Forecast Distribution

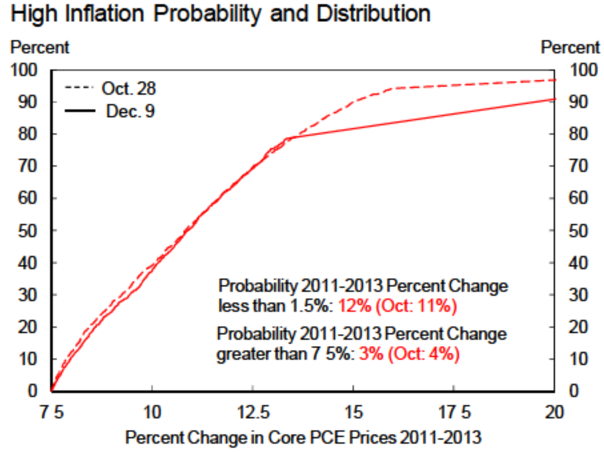


The blue lines are the 90% chance the four-quarter change will be within the lines, the red line is the central scenario projection, and the black line is released data. Dashed lines represent forecasts from the previous Blackbook.

Depth of Recession



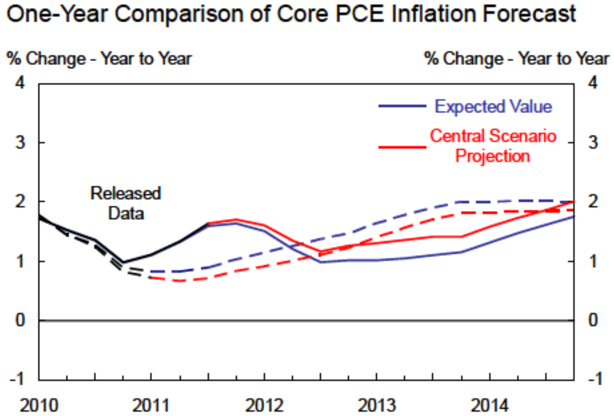
High Inflation Probability and Distribution

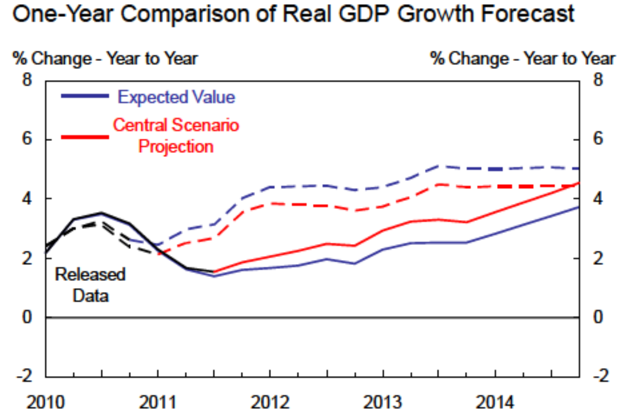


Source: MMS Function (FRBNY)

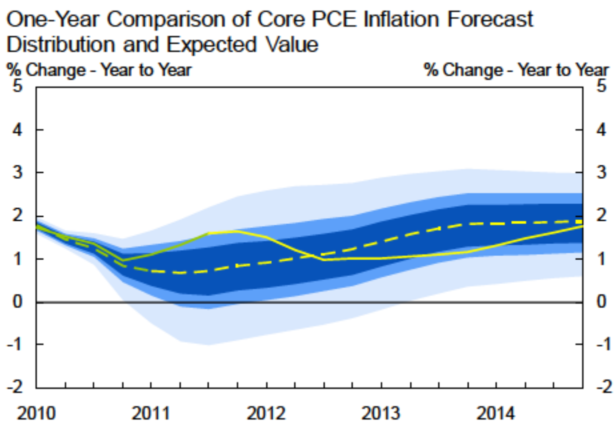
C. FRBNY Forecast Distributions

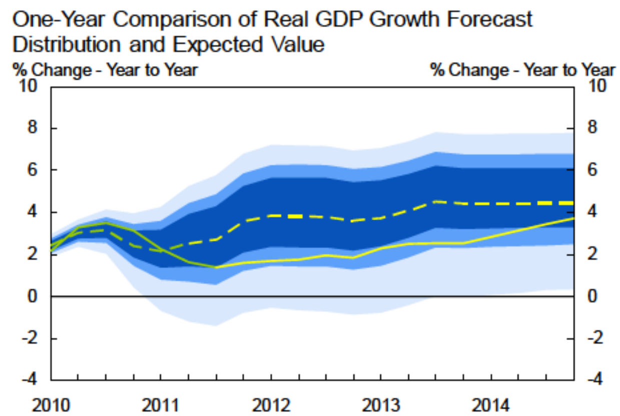
Exhibit C-4: Evolution and Performance of Inflation and Output Forecast Distributions





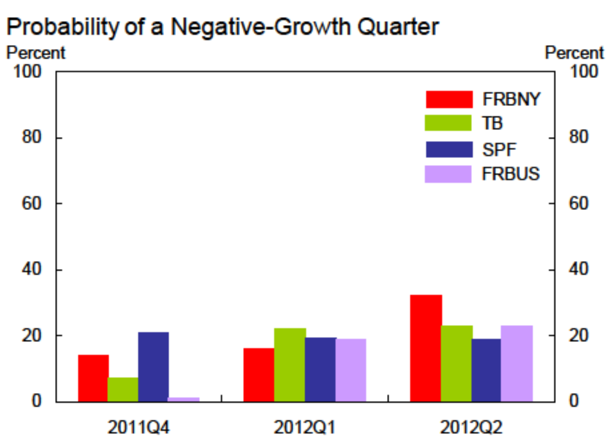
The solid lines represent the current central scenario projection and expected value, while the dashed lines represent those from the year-ago Blackbook.





The solid yellow line is the **current** expected value of the forecast distribution, while the dashed yellow line is the expected value from the year-ago Blackbook. The shading represents the 50, 70 and 90 percent probability intervals from the year-ago forecast. The green lines are released data.

Exhibit C-5: Probability of a Negative Growth Quarter

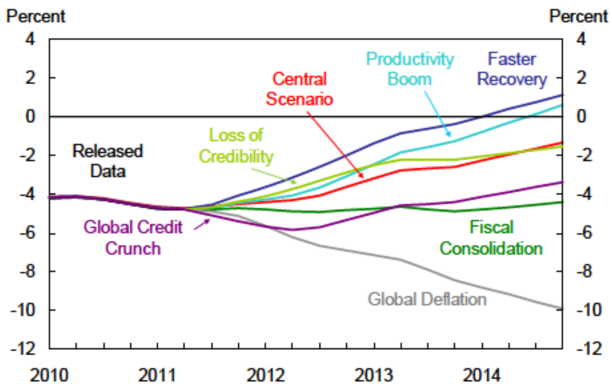


Source: MMS Function (FRBNY)

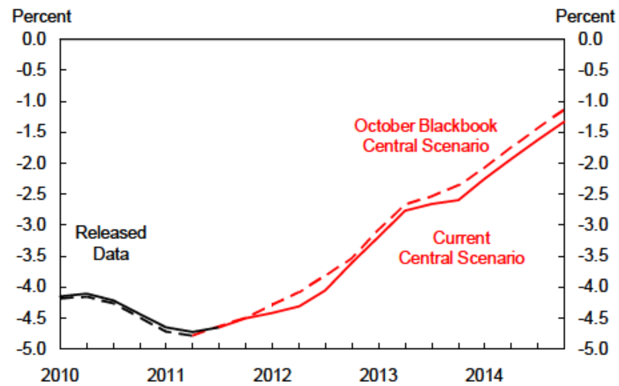
D. FRBNY Fed Funds Rate Projections

Exhibit D-1: *Baseline*
Policy Rule Analysis

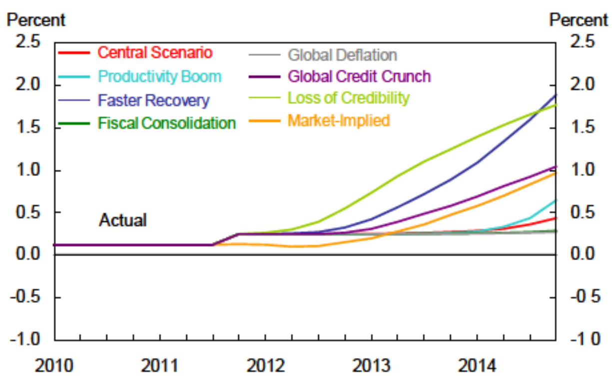
Real FFR under Alternative Scenarios



Change in Central Scenario Real FFR



Nominal FFR under Alternative Scenarios



Change in Central Scenario and Market-Implied Nominal FFR

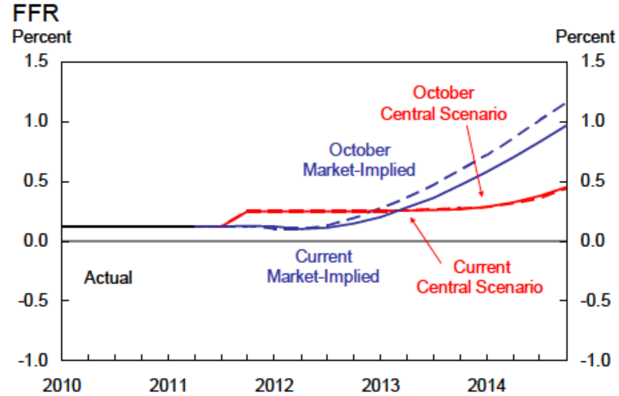
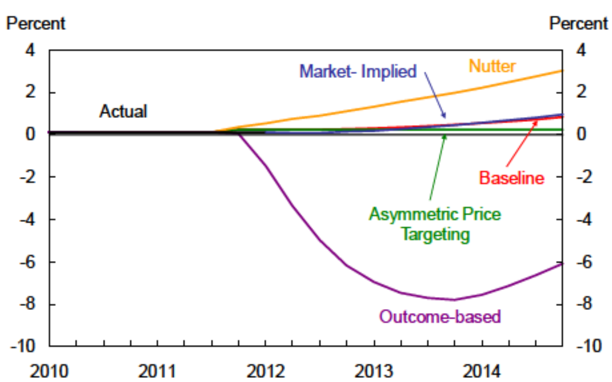


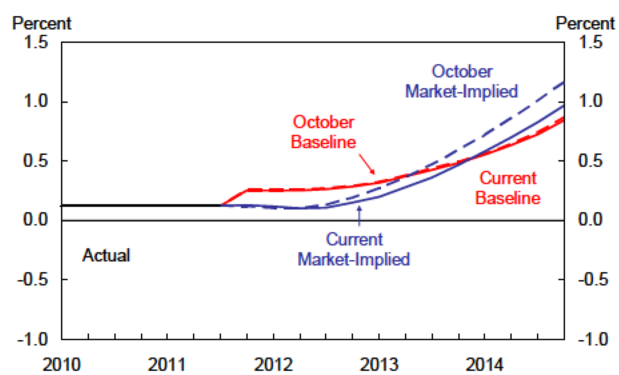
Exhibit D-2: Alternative Policy Rules under Expected Value of Forecast Distribution

Nominal FFR using Alternative Policy Rules*



*Evaluated using yellow line from C-3

Change in *Baseline** and Market-Implied Nominal FFR



*Evaluated using yellow line from C-3

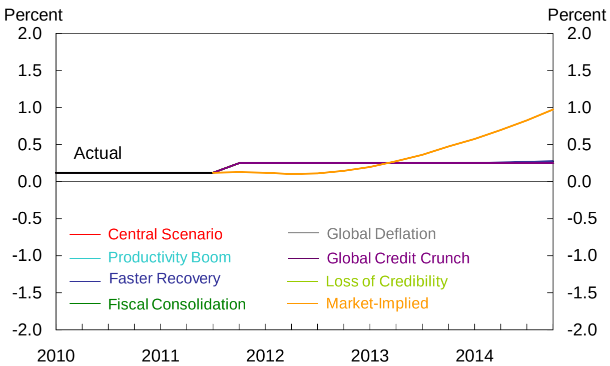
Source: MMS Function (FRBNY)

D. FRBNY Fed Funds Rate Projections

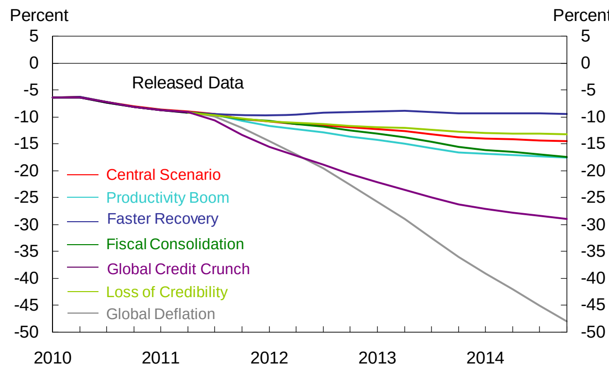
Exhibit D-3: Alternative Policy Rule Analysis

Policy Rule: *Asymmetric Price Targeting*

Nominal FFR under Alternative Scenarios

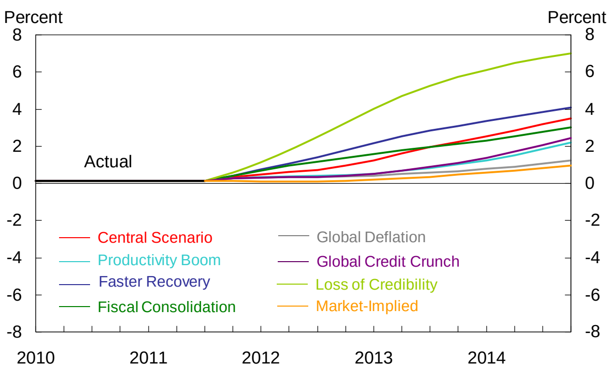


Real FFR under Alternative Scenarios

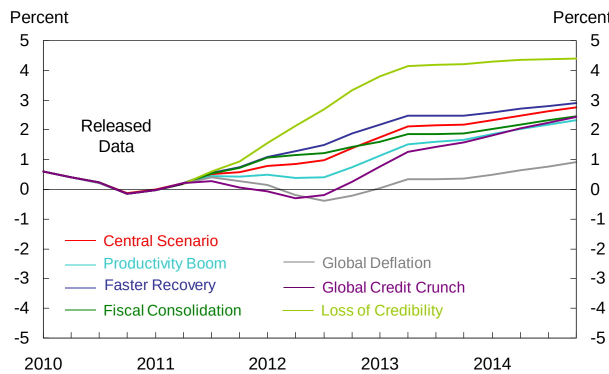


Policy Rule: *Nutter*

Nominal FFR under Alternative Scenarios

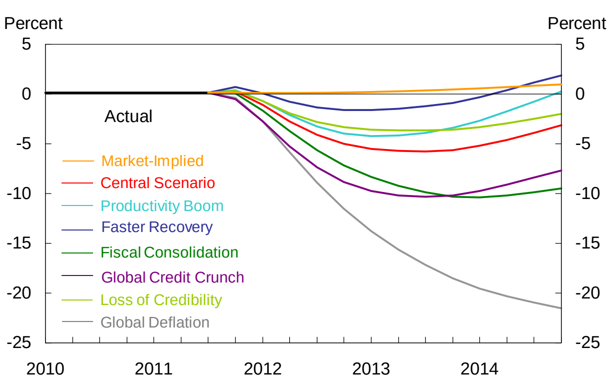


Real FFR under Alternative Scenarios

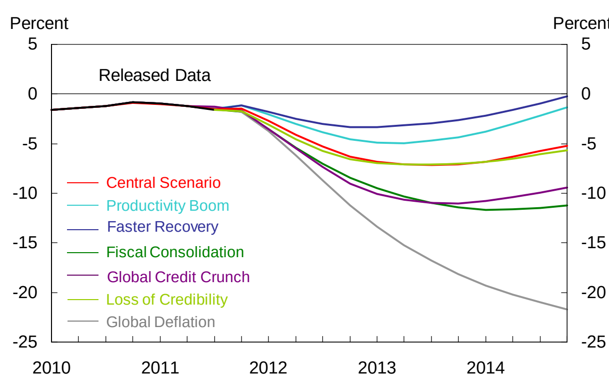


Policy Rule: *Outcome-based*

Nominal FFR under Alternative Scenarios



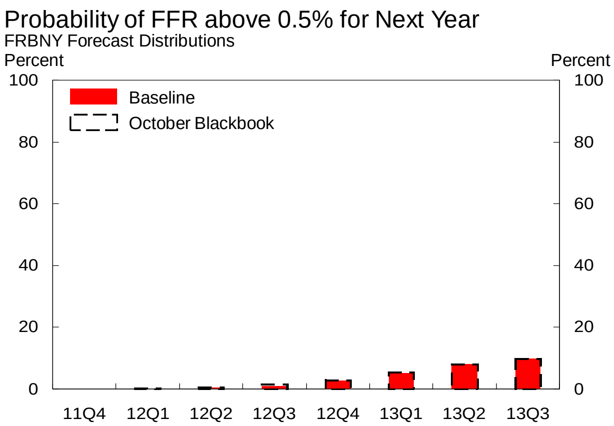
Real FFR under Alternative Scenarios

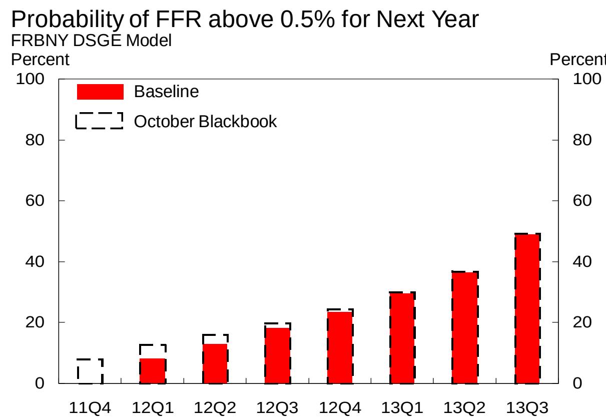


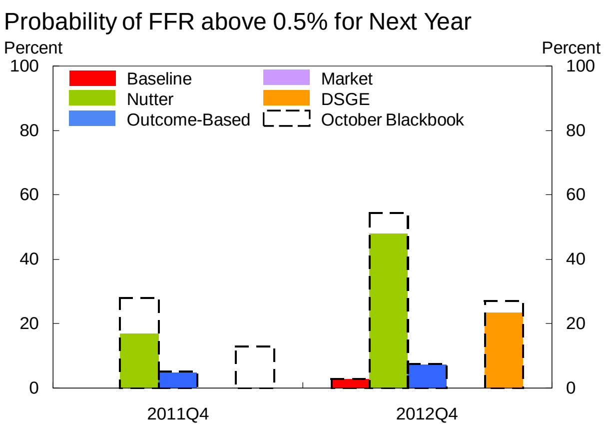
Source: MMS Function (FRBNY)

D. FRBNY Fed Funds Rate Projections

Exhibit D-4: FFR Probabilities







Note: Probability displayed is probability of FFR being above 0.5% in quarter noted and remaining above 0.5% in subsequent four quarters. DSGE results are shown for model including zero bound restriction.

Source: MMS Function (FRBNY)

Alternative Scenario Descriptions

In this abbreviated version of the Exhibit C documentation, we include brief descriptions of the alternative scenarios used in this Blackbook. Full documentation, including a description of the methodology, is included in the Appendix.

Our first alternative scenario considers the impact of above-trend productivity growth. Our current assumption of trend productivity growth is around 1.75% on a nonfarm business sector basis. Sustained productivity growth above this assumption would have important consequences for the economy. Typically, because below-trend productivity growth also has important consequences, we have included an alternative scenario that incorporates that assumption (*Productivity Slump)*. However, because the near-term consequences of that scenario and the *Fiscal Consolidation* scenario are similar, we have combined those two scenarios into a single revamped *Fiscal Consolidation* scenario, which allows us to add a new scenario (*Faster Growth/Recovery*). We also currently consider four additional scenarios. In one (*Faster Growth/Recovery*), the recent "headwinds" subside more quickly than expected, leading to stronger aggregate demand effects from monetary and fiscal policy. In another (*Loss of Credibility*), the public and investors lose confidence in the current stances of monetary and fiscal policy. In the other two (*Global Credit Crunch* and *Global Deflation*), the recent stresses in global financial and economic conditions continue to have an impact on U.S. economic conditions; the differences between the two mainly reflect differing assessments of how protracted the negative effects could be.

Alternative 1: *Productivity Boom*

After a lull in the mid-2000s, productivity growth has been robust and above our current estimate of trend productivity growth. This rapid growth raises the possibility that the lull in productivity growth in mid-decade was a cyclical development and that medium- and long-term productivity growth will be closer to that of previous post-WWII periods of high productivity growth (pre-1973 and the mid-1990s through the mid-2000s). As such, we could see persistent productivity growth above our assumed trend, implying a higher potential growth rate for output and thus expected real output growth that is higher than our current estimate. (A higher potential growth rate may also imply that the output gap that opened during the 2007-2009 recession is larger than we currently estimate). Strong productivity growth would also limit labor cost pressures and thereby help to subdue inflation.

Alternative 2: *Fiscal Consolidation*

Events in Europe in 2010 and so far in 2011 concerning the fiscal position of several euro zone countries raise issues about the possible economic consequences if similar concerns were to develop about the sustainability of the U.S. government's fiscal position. The *Fiscal Consolidation* scenario envisions a situation in which concerns on the part of investors about the fiscal sustainability of the United States leads to an increase in long term interest rates and term premia that contribute to a decline in output growth below that of the central forecast. As the U.S. government responds to those concerns by reducing government spending and/or raising taxes, the consequent decline in aggregate demand would imply that growth of real activity continues to be weak. In this scenario inflation temporarily rises above the central forecast, in part due to a likely depreciation of the dollar and possible increases in inflation expectations[2]. [As stated earlier, the near-term implications of this scenario are similar to those of a supply shock or productivity slump, which is one reason we have folded in the weight of the old *Productivity Slump* scenario into this scenario.] However, after several quarters, with the government embarking on a credible fiscal consolidation, inflation declines below the central forecast as a consequence of the drop in aggregate demand and output growth.

Alternative 3: *Faster Growth/Recovery*

The recovery from the 2007-09 recession has been quite weak, especially given the severe drop in real activity during the recession. Factors behind the slow pace of recovery include the continued stress faced by financial markets and institutions as they slowly mend from the financial crisis and a slow process of repairing household balance sheets damaged in the financial crisis and recession. However, the relative strength in

[2] Some economic models imply that if the public and investors see the fiscal situation as unsustainable, they could raise inflation expectations because of the possibility that part of the long-term fiscal budget gap is closed through higher inflation.

recent real PCE and other aggregate demand indicators raise the possibility that the process of mending may be beginning to reach an end. The *Faster Growth/Recovery* scenario envisions a situation where these factors that have inhibited growth subside more quickly than anticipated by policymakers. In particular, the diminution of these factors would lead to a stronger impact from accommodative monetary policy and from the fiscal stimulus associated with the fiscal agreement passed in December 2010, leading to faster growth in aggregate demand. In that case, real GDP growth could be higher than anticipated, and inflation pressures could materialize more quickly.

Alternative 4: *Loss of Credibility*

In the wake of the monetary and fiscal stimulus used to combat the 2007-2009 recession, some commentary has focused on the possibility that these policies could lead to higher inflation expectations and eventually to higher inflation. The continued elevated levels of some commodity prices are consistent with such commentary. Even though the FOMC has made its commitment to low rates contingent on "subdued inflation trends" and "stable inflation expectations," it is possible that market participants may begin to believe that the FOMC is not credibly committed to keeping inflation around the presumed implicit target level, especially if the unemployment rate remains high. In addition, concerns about the possible influence of continued high fiscal deficits on monetary policy could lead investors and the public to question FOMC credibility on inflation: FRBNY survey evidence suggests that, for at least some market participants, increases in government debt lead to higher inflation expectations, regardless of the reason for the increased debt. If the concerns about credibility were to become widespread, they would likely cause a rise in inflation and inflation expectations above forecast.

Alternative 5: *Global Credit Crunch*

Although financial markets are generally notably healthier than they were during the most extreme periods of the financial crisis, continued impairments in some markets as well as general economic uncertainty may be keeping credit availability very tight. In addition, consumers suffered wealth losses during the crisis, of which only a small part has been recovered, and volatility in equity markets is still elevated. Most central banks are maintaining what would appear to be very accommodative policy stances. This combination of factors suggests that the neutral rate is still lower than it was before the financial turmoil began (we estimate it to be between 3.00% and 3.75% over the near-term). Even though the current FFR is well below our lower estimate of the neutral rate, tight credit conditions, continued stresses in global financial markets, and a still-significant chance of a further deterioration in global economic conditions create a risk that output growth will fall significantly below the level projected in the central forecast; this development would likely be accompanied by inflation below the level in the central forecast. Nevertheless, under this scenario we assume that financial markets will begin to function more normally and that, as they do, the economy will exit the *Global Credit Crunch* scenario and begin growing faster than its potential growth rate. The strong output growth experienced when the economy leaves the scenario should result in a closing of the output gap over time.

Alternative 6: *Global Deflation*

Recent price level indicators point to low inflation in many regions of the world. With inflation at such levels, sluggish growth in some parts of the world, concerns about the future of the euro zone, and continued financial market uncertainty suggest that there is some risk of global deflation going forward. This possibility is further exacerbated as many central banks around the world have their policy rates at or very near their lower bounds. The *Global Deflation* scenario reflects the possibility that the U.S. and the rest of the world may get mired in a liquidity trap for a prolonged period of time, resulting in both inflation and output growth far below the levels projected in the central forecast. Because of the difficulty of exiting such a situation, we see the *Global Deflation* scenario as quite persistent. Unlike the *Global Credit Crunch* scenario, the economy does not generally "bounce back" from *Global Deflation* to close the output gap. Instead, the U.S. is much more likely to experience a prolonged period of essentially no growth, and in many simulations in which the economy enters the *Global Deflation* scenario the level of output in 2013 does not surpass the 2009Q2 peak.

The implications for inflation and output of the various scenarios can be summarized as follows:

1. *Productivity Boom*: inflation below central forecast, output above central forecast.

2. *Fiscal Consolidation*: inflation initially above and then below central forecast, output below central forecast.
3. *Faster Growth/Recovery*: inflation above central forecast, output above central forecast.
4. *Loss of Credibility*: inflation far above central forecast, output slightly below central forecast.
5. *Global Credit Crunch*: inflation below central forecast, output significantly below central forecast.
6. *Global Deflation*: inflation far below central forecast, output far below central forecast.

Policy Rule Descriptions

In this abbreviated version of the Exhibit D documentation, we include a description of policy rules used in this Blackbook. Full documentation, including the methodology description, is included in the Appendix.

In both our *Baseline* and alternative policy rule specifications, the policy rate responds to deviations of inflation from target and of output from potential (except for the *Nutter* rule, which ignores output deviations), while incorporating some degree of inertia. For each of the FFR paths and each of the policy rules, we determine these deviations using the inflation and output paths generated in Exhibit C.

Baseline Policy Rule Specification:

$$i_t = \rho i_{t-1} + (1-\rho)\left[i^* + \varphi_\pi\left(\pi_t - \pi^*\right) + \varphi_x x_t\right]$$

$\rho = 0.8$ (interest rate smoothing parameter)
$i^* = 3.75$ in short-term, moving to 4.25 (neutral FFR)
$\pi^* = 1.75$ (core PCE inflation target)
$\varphi_\pi = 1.5$ (weight on inflation deviations)
$\varphi_x = 0.5$ (weight on output gap)
π_t : core PCE, 4-quarter average
x_t : output gap, using 2.7% potential growth rate, moving to 2.6%
i_{t-1} : interest rate in previous quarter

The two variants of the *Baseline* rule that we use are the *Asymmetric Price Targeting* and *Nutter* rules. The *Asymmetric Price Targeting* rule is designed to combat deflation by instituting price-level targeting. This rule reacts more slowly than the *Baseline* rule to initial increases in inflation, maintaining a lower policy rate for a longer period of time.[3] In each quarter over the forecast horizon, the rule reacts to the cumulative gap between a 1.5% price level path and the actual path on the downside; the rule is asymmetric because price-level targeting is only implemented on the downside. When the cumulative gap in

[3] All of the policy rules are subject to an effective lower bound of 0.25%.

inflation is greater than 1.5% per year, the policy rule reverts to targeting the gap between four-quarter changes in inflation and the inflation objective, just as in the *Baseline* rule.

The *Nutter* rule reacts more strongly than the Baseline rule to changes in inflation. Specifically, the *Nutter* rule increases the weight on deviations of core PCE inflation from the target (φ_π = 2 instead of 1.5). The *Nutter* rule does not react to changes in the output gap.

In addition to the *Baseline* rule and the two variants, we also consider the FFR paths generated by the Board staff's *Outcome-based* rule. The most significant difference between the three FRBNY rules and the *Outcome-based* rule is that the FRBNY rules offer a prescription for future behavior based on policymaker preferences and views of the economy, whereas the *Outcome-based* rule is a statistical description of the average of past FOMC behavior. Specifically, the *Outcome-based* rule calculates an FFR for a given quarter as a function of the FFR in the previous two quarters, the current quarter's four-quarter core PCE inflation, and the output gap for the current and the previous quarter using parameters estimated from real-time historical data (1988-2006)[4].

We also want to compare the policy paths and distributions calculated using these rules with the market-implied path and distribution. In these charts, we use the standard path of market policy expectations derived from fed funds and Eurodollar futures contracts that is pictured in Exhibit A-5. For Exhibit D-4, we construct a distribution for the market-implied path by assuming it has a normal distribution centered at the standard, market-implied path, with a standard deviation derived from options markets (pictured in Exhibit A-6).

Using a weighting scheme, it is possible to combine the *Baseline* and the two variants into an *Average* rule that may better reflect market beliefs about FOMC preferences and views of the structure of the economy than does any individual rule. (That is, we can think of the market-implied path as reflecting an amalgam of different perceived FOMC

[4] *Outcome-based* rule: $i_t = 1.20*i_{t-1} - 0.39*it\text{-}2 + 0.19*(1.17 + 1.73*\pi_t + 3.66*x_t - 2.72*x_{t-1})$

preferences, etc.) Each cycle we construct the *Average* rule by taking the weighted average of the *Baseline* rule and the two FRBNY-derived variants that matches the market-implied path as closely as possible. (We do not currently display the *Average* rule or the weights used to calculate the *Average* rule in the Blackbook). Examining the change in the weights used to construct the *Average* rule from one cycle to the next can provide insight into the reasons behind shifts in the market path not explained by changes in the outlook.